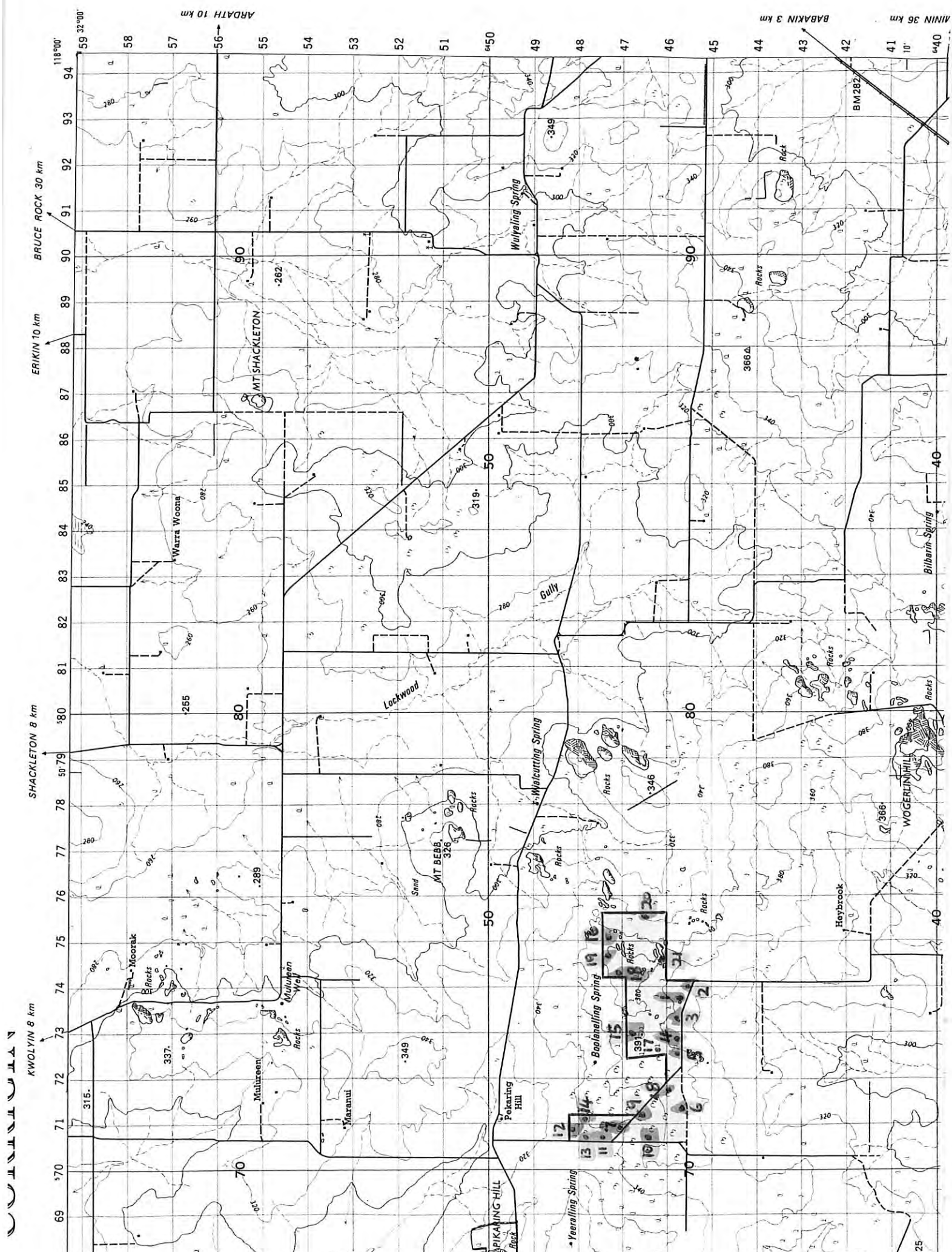


BOOLANELLING NATURE RESERVE

**Plot Locations
Site Parameters
Vegetation Data**





CONVERSION TABLE

METRES TO FEET	
1	= 3.281
2	= 6.562
3	= 9.843
4	= 13.124
5	= 16.404
6	= 19.685
7	= 22.966
8	= 26.247
9	= 29.528
1 FOOT = 0.3048 METRES	

BILLERICAY 33 km

BENDERING 33 km

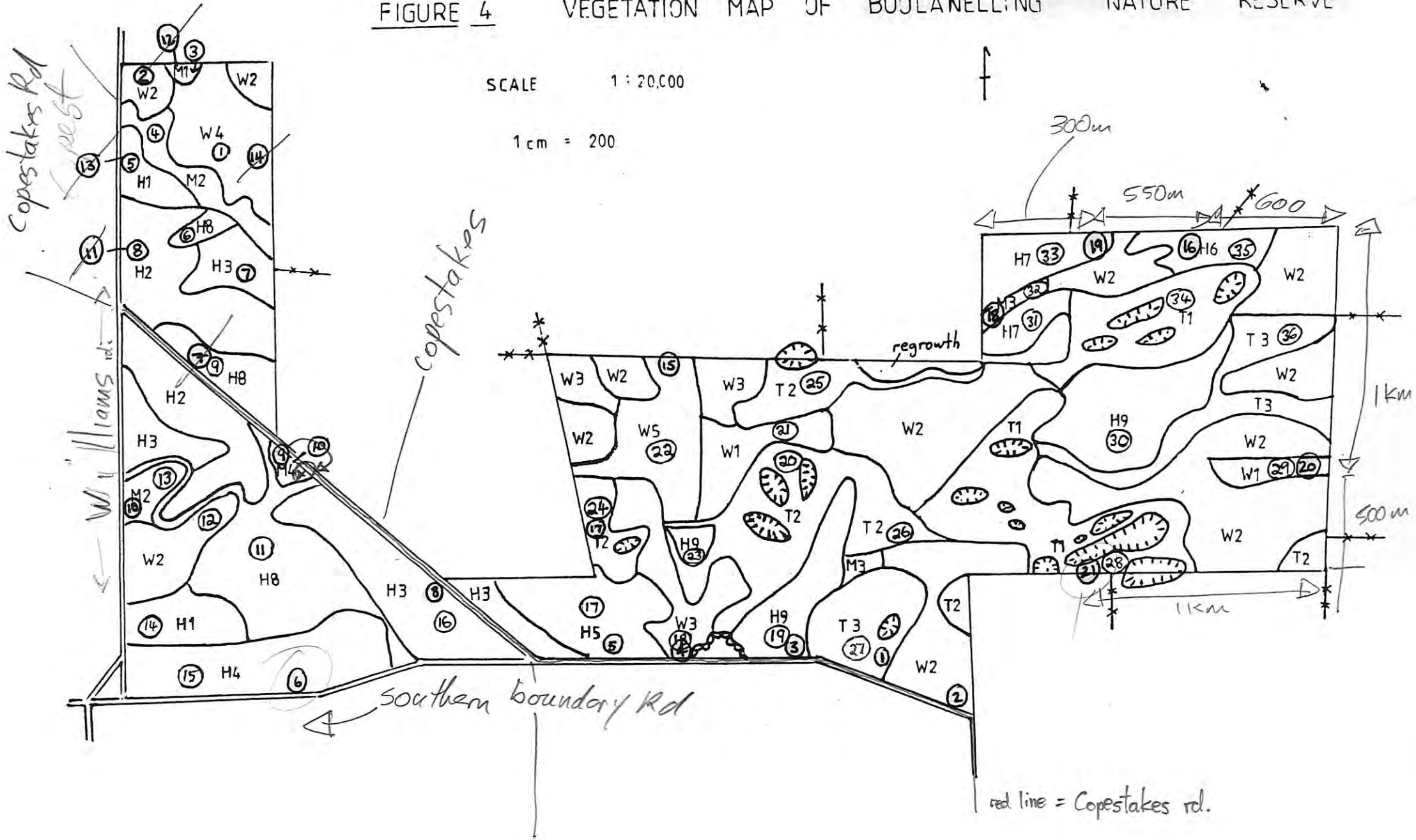
19

FIGURE 4

VEGETATION MAP OF BOOLANELLING NATURE RESERVE

SCALE 1 : 20,000

1 cm = 200



800 06 000 on east of W'N boundary on sth. boundary rd [1.9km to Copestake Rd] in LAR.

CLM012 - Boolanelling					
GPS					
Date	Site	Map code	UTM	K/J	Location
3/09/98	~~BO1~~	T3	50573650	6445623	Site 60m N of road, 600m NW along southern boundary from SE corner.
3/09/98	~~BO2~~	W2	50574015	6445563	Site 100m N of road, 100m W of reserve border on Copestake Rd.
3/09/98	~~BO3~~	H9	50573535	6445546	Site 50m N of road, 800m along southern boundary from SE corner; 1km E of intersection with road heading to NW from southern boundary.
3/09/98	~~BO4~~	W3	50573135	6445624	Site 70m N of road, approx 1.5km NW, then W along southern boundary from SE corner; 650m E of intersection of road heading NW from southern boundary.
3/09/98	~~BO5~~	H5	50572563	6445686	Site 30m N of Copestake Rd, 1.5km W of reserve border.
3/09/98	~~BO6~~	H4	50571420	6445508	Site 50m N of road, 2.85km W of corner of western and southern boundary roads.
3/09/98	~~BO7~~	H8	50571204	6446811	Site 50m N of road, 400m SE on Williams Rd from corner with western boundary road.
3/09/98	~~BO8~~	H3	50571983	6445951	Site 45m on bearing 202° from Copestake Rd, 2.3km W of reserve border.
3/09/98	~~BO9~~	M4	50571509	6446357	Site 70m S of Williams Rd, 1.25km NW of intersection of Williams Rd and southern boundary road.
3/09/98	~~BO10~~	M2	50570655	6446344	Site 40m E of Williams Rd, 850m S of intersection with Copestake Rd.
4/09/98	~~BO11~~	H2	50570895	6447355	Site 50m E of road, 200m N of junction of Williams Rd and western boundary road - on western boundary.
4/09/98	~~BO12~~	M1	50571089	6448119	Site 40m S of road, 250m E along far NW border. (300m E)
4/09/98	~~BO13~~	H1	50570666	6447812	Site 25m E of Copestake Rd, 600m N of intersection with Williams Rd.
4/09/98	~~BO14~~	W4	50571214	6447887	Site 90m on bearing 283°, 400m S along E border of NW section of reserve.
4/09/98	~~BO15~~	W5	50573201	6446656	Site 130m S of road, 550m E along N fenceline in central part of reserve.
4/09/98	~~BO16~~	H6	50575247	6447289	Site 60m S of road, 600m W along N boundary from far eastern side.
4/09/98	~~BO17~~	T2	50572618	6446213	Site 35m E of fenceline, 800m around fenceline (N border of reserve) E of Copestake Rd, eastern portion of reserve.
4/09/98	~~BO18~~	M3	50574149	6447000	Site 50m E of fenceline running N-S, 360m S along fenceline from N fence boundary.
4/09/98	~~BO19~~	H7	50574499	6447308	Site 60m on bearing 170°, 1.15km from NE corner of reserve along N boundary.
4/09/98	~~BO20~~	W1	50575727	6446359	Site 140m W of border, 500m N on far eastern border from southern border. Not flagged on fence. Peg on fence.
4/09/98	~~BO21~~	T1	50574611	6446036	Site 30m N of fenceline, 1km from SE corner of reserve along S fenceline.

571223
6445535

57189

CLM012															
Boolanelling															
Site No.	Date	Veg. Type	Topography	Age since fire	Litter	Outcropping	Aspect					Soils		Pebble	
					Cover	Type	Type	Quant	Slope	Heading	% bg	CSS ratio	Colour	Type	Size
1	3/09/98	T3	MS	>3	5	Lv,T	nil	nil		SE	50	0:02:08	10YR5/4	nil	NA
2	3/09/98	W2	MS	>3	65	Lv>T>Lg	nil	nil	1	W	30	3:02:05	10YR5/4	Quartz	<1
3	3/09/98	H9	MS	>3	5	Lv>T	nil	nil	2	S	30	0:02:08	10YR5/4	nil	NA
4	3/09/98	W3	LS	>3	80	Lv>T>Lg	nil	nil	5	SE	3	0:01:09	10YR4/2		
5	3/09/98	H5	US	>3	5	Lv>T	nil	nil		SE	30	0:02:08	10YR6/6	nil	NA
6	3/09/98	H4	MS	>3	5	Lv,T	Lat	occ	nil	NA	35	2:01:07	10YR6/4	Lat	<1
7	3/09/98	H8		>3	25	Lv>T	nil	nil	0.5	S	25	0:01:09	10YR4/2	nil	NA
8	3/09/98	H3	US	>3		Lv>T	nil	nil		N	30	0:02:08	10YR6/6	nil	NA
9	3/09/98	M4	MS	>3	60	Lv>T>Lg	nil	nil	nil	NA	7		10YR6/2	nil	NA
10	3/09/98	M2	MS	>3	70	Lv>T>Lg	nil	nil		N	10	0:04:06	10YR4/2	Lat	<1
11	4/09/98	H2	MS	>3	15	Lv>T	nil	nil	0.5	SW	27	0:01:09	10YR6/2	nil	NA
12	4/09/98	M1	MS		3	Lv>T>Lg	nil	nil	0.5	N	65	1:02:07	10YR4/2	Quartz,Lat	<10
13	4/09/98	H1	MS	>3	40	Lv>T>Lg	nil	nil	1	S	55	0:03:07	10YR5/4	Quartz,Lat	<1
14	4/09/98	W4	MS	>3		Lv>T>Lg	nil	nil	1	E	2	0:04:06	5YR3/2	nil	NA
15	4/09/98	W5	US	>3	70	Lv>T>Lg	nil	nil	nil	NA	29	1:02:07	5YR4/4	nil	NA
16	4/09/98	H6	MS	>3	60	Lv>T>Lg	nil	nil	1	NE	25	0:01:09	10YR5/2	nil	NA
17	4/09/98	T2	US	>3	5	Lv>T	Granite	occ	1	SE	30	0:02:08	10YR4/2	Quartz,Granite	<1
18	4/09/98	M3	US	>3	70	Lv,T	nil	nil	1	N	25	0:02:08	10YR5/4	Lat	<0.1
19	4/09/98	H7	US	>3	5	Lv,T	Granite	occ	2	N	80	1:02:07	10YR5/4	Quartz/Granite	<10
20	4/09/98	W1	MS	>3	65	Lv>T>Lg	nil	nil	0.5	NE	34.5	0:01:09	10YR4/2	Quartz	<0.1
21	4/09/98	T1	MS	>3	70	Lv,T	Granite	occ	nil	E	20	1:03:06	10YR2/2	Quartz/Granite	<1

Matsku Report

Charles Gardner Res.

1-21 sites

missing photos of 8, 11

Dragon Rocks Res.

1-30 sites missing 21 and ~~28~~
on the maps

photos of ~~1-21~~ missing 12
↓ 1-21 ↑

Lake Hurlstone Res

1-30 sites missing 26 on map

photos of all

(28, 29, 8 - dark photos)

Boolanelling NR

1-21 sites

(missing site 14 photo)
(16 9 dark photos)

Birdwistle NR

1-14 sites

(missing photo 13)

(10, 4, 6 photo dark)

Corrigin

Libby's code	Calm codes
AS01	KN29
AS02	KN30
AS03	KN31
AS04	KN32
AS05	KN33
AS06	KN34
AS07	KN35
AS08	KN36
AS09	KN37
AS10	KN38
AS11	KN39
AS12	KN40
AS13	KN41
AS14	KN42
AS15	KN43
BO01	KL30
BO02	KL31
BO03	KL32
BO04	KL33
BO05	KL34
BO06	KL35
BO07	KL36
BO08	KL37
BO09	KL38
BO10	KL39
BO11	KL40
BO12	KL41
BO13	KL42
BO14	KL43
BO15	KL44
BO16	KL45
BO17	KL46
BO18	KL47
BO19	KL48
BO20	KL49
BO21	KL50
BS01	WK31
BS02	WK32
BS03	WK33
BS04	WK34
BS05	WK35
BS06	WK36
BS07	WK37
BS08	WK38
BS09	WK39
BS10	WK40
BS11	WK41
BS12	WK42
BS13	WK43
BS14	WK44

Libby's code	Calm codes
CG01	QU22
CG02	QU23
CG03	QU24
CG04	QU25
CG05	QU26
CG06	QU27
CG07	QU28
CG08	QU29
CG09	QU30
CG10	QU31
CG11	QU32
CG12	QU33
CG13	QU34
CG14	QU35
CG15	QU36
CG16	QU37
CG17	QU38
CG18	QU39
CG19	QU40
CG20	QU41
CG21	QU42
DS01	HY26
DS02	HY27
DS03	HY28
DS04	HY29
DS05	HY30
DS06	HY31
DS07	HY32
DS08	HY33
DS09	HY34
DS10	HY35
DS11	HY36
DS12	HY37
DS13	HY38
DS14	HY39
DS15	HY40
DS16	HY41
DS17	HY42
DS18	HY43
DS19	HY44
DS20	HY45
DS21	HY46
DS22	HY47
DS23	HY48
DS24	HY49
DS25	HY50
DS26	HY51
DS27	HY52
DS28	HY53
DS29	HY54

Libby's code	Calm codes
DS30	HY55
HS01	HY56
HS02	HY57
HS03	HY58
HS04	HY59
HS05	HY60
HS06	HY61
HS07	HY62
HS08	HY63
HS11	HY64
HS12	HY65
HS13	HY66
HS14	HY67
HS15	HY68
HS16	HY69
HS17	HY70
HS18	HY71
HS19	HY72
HS20	HY73
HS22	HY74
HS23	HY75
HS24	HY76
HS25	HY77
HS26	HY78
HS27	HY79
HS28	HY80
HS29	HY81
HS30	HY82

01/12/2000

Wheatbelt Bending June 99

- Euc. transcontinentalis

- W. Bending 30/6/99

Wheatbelt Bending June 9922/9/00

- Phelatum ambiguum

- Oxalis pes-caprae

- Schoenus subflavus sep. "hispid culms" - ???

- Microcybe multiflora var. multiflora

- Microcybe multiflora var. multiflora

- Gaveia benthamii sep. benthamii

- Wurmbea tenella

- Iscetes drummondii

- Conospermum eatoniae

- Acacia ~~strep~~ptera

- Acacia pulchella

- Heterostylis concava

- Lepidosperma

- Lomandra effusa

- Dryandra

- Heterostylis scabra

- Eremophila drummondii

- Lepidosperma

- Heterostylis scabra

- Leucopogon

- Chamelaucium

- Euc. astringens

- Euc. phenax

- Acacia

- N. Kalbarin 29/6/99

- W. Bending NR 29/6

- WU28 -?? 30/6

- KN27 30/6

- ??

- Quir cemetery 1/7

- Granite quair 1/7

- " "

- Quir cemetery 1/7

- " "

- " "

- Quir Nth wardoo "

- " "

- " "

- W. Bending Quir 1/7

- KN27 30/6

- KN27 30/6

- KN28 30/6

- W. Bending NR 30/6

- N. Kalg 29/6

- W. Bending NR 29/6

- Spring Hill rd 1/7

- Quir Nth wardoo 1/7

- W. Bending 29/6

SITES THAT NEED RE-PHOTGRAPHING OR OTHER WORK

Page 1/2

CALM SAP SITES AND LIBBY MATISKE'S SITES

SITE NAME	MISSING PHOTOS			DARK PHOTOS			OTHER
	1997	1998	1999	1997	1998	1999	
TRAYNING	7					1, 9	5 (topo position) 8 Lat/long
HYDEN	~~12, 13, 15, 23~~						6 (surface soil)
** DRAGON ROCKS	~~12, 22-30~~ ~~25, 24, 28, 26, 27, 29, 28~~			~~8, 14, 15,~~ ~~28, 29, 21~~			
** LAKE HURLSTONE				~~8, 28, 29~~			
KONDININ				27, 28			15 (topo pos)
MERREDIN	9, 16						
QUAIRRADING	21			2			
KELLERBERRIN				3			2 (aspect), 4 (topo pos)
** BOOLANELLING	~~14~~			~~9, 13, 16,~~ ~~21~~			
** CHARLES GARDINER	~~8, 13~~			~~17~~			
YORK	1, 2, 10, 11						7 (topo pos) 10 all of it – Lat/long 11 Lat/long 14 (surface soil)
WICKEPIN				1, 14, 16			1, (surface soil) 4 reserve name/type
NARROGIN	~~1, 9~~			12			3, 4, 5, 6, 9, 10, 11, 12, (surface soil) 6, (topo pos) 12, (aspect) 17, nearly all cover sheet
** BIRDWISTLE NR	~~13~~			~~4, 6, 10~~			

CALM SAP SITES AND LIBBY MATISKE'S SITES

SITE NAME	MISSING PHOTOS			DARK PHOTOS			OTHER
	1997	1998	1999	1997	1998	1999	
NORTHAMPTON					3, 4, 6, 9, 10, 11, 13, 19, ?21		15, 20, 21 Lat/long
MULLEWA					1, 13, 17, ?18, 19, 23, 26		
MORAWA					6, 15		
BEACON					2, 6, 19		
WONGAN HILLS		4			2, 3, ?5, 11, 15, 17, 20		
JULIMAR/BOLGART		26			5, 6, 11, 21, 23		
WB		18			3, 19a		
DUMBLEYUNG			13			11	12 (aspect)
PINGERUP			14			?4, 15, 16, 17, 24	1 (topo loc)
LAKE KING						4, 5, 6, 9, 11, 15, 16,	12 (silt or sandstone) 18 (aspect)
STIRLING			13, 26			22	
UNICUP						3, 9, 13, 16, 17	
DARKIN			11			2	

**** LIBBY MATISKE'S SITES**

Changes to Make ~~Mardaga~~

was

* *Euc. gardneri*

BS401 17/8/98

now *E. densa* ssp. *densa*

* *Euc. densa*

DS2206

now *E. phaenophylla*

* *Euc. gardneri*

DS2107

now *E. phaenophylla*

CG 1.6

15/9/98

was

Stylidium ? *obtusatum*

now

~~*Stylidium* sp.~~

~~*Centrolepis pilosa*~~

~~*Centrolepis polygyna*~~

Crossula ...

5-merous

lobes as long/longer



heads
elongate

thinning at base



~~DS 19.6~~

19/8/98

~~DS 2.22~~

18/6/98

was *Hillebrandia rupestris* → now *H. sp.* sterile

now *H. gracilipes*

~~DS 3.2~~

19/6/98

~~DS 15.21~~

19/8/98

was *H. enervia*

now *H. gracilipes*

~~HS 1.13~~

11/6/98

was *H. cataractae*

now *H. sp.* (sterile)

~~DS 6.14~~

17/8/98

was *Pimelea saavedrans* sp. *flava*

now *P. aeruginosa*

~~DS 1.4~~

19/6/98

was *P. sulphurea*

now *P. aeruginosa*

Changes to make

28/3/01

Now

~~Petrophile merrallii~~
~~Petrophile merrallii~~

Was

~~P. ericifolia~~
~~P. ericifolia~~

coll #

~~DS 19.1~~
~~AS 10.12~~

oleosa ^{sp.} repleta - green patches + Esp. cells

delicata - west of above

oleosa cornuta - South coastal one

" cylindrioides - esperance + GP area

* Changes to Make *

was

~~capillose sp. polyclada~~

at HS3.1

now

phaenophylla sp. phaenophylla

DS 2.18

18/6/98

was *Leucopogon hamulosus*

now *L. sp. Lake King*

DS 23.1

15/8/98

was *L. crassifolius*

now *sp. Wheatbelt (Sm 257)*

HS 6.7 11/6/98

was *Dampiera tenuiculis*

now

Comesperma ??

integerrimum

Changes to make

Euc. sp. = *E. tener*

tree AS 6.1 4/6/98

~~Schoenus hexandrus~~

- BO 11.16

now Schoenus ^{vel.} aff. brevisetis

~~Schoenus lanatus~~

- DS 7.10

now Schoenus vel. aff. brevisetis

also - BO 16.21

~~Schoenus hexandra~~

- DS 7.50 * NOT DS 7

AD 32 37 56
118 57 23

now Schoenus ?? vel. aff. brevisetis (sterile)

~~Schoenus ^{sub}aphyllus~~

- HS 18.10 * NOT HS 18

AD 32 39 12
119 24 2

now Schoenus vel. aff. brevisetis

~~Schoenus subaphyllus~~

- HS 9.11

now Schoenus sp. Wongan hills (our name)
(curly basal hairs + hairy floral bracts)

[Changes to make on Datasheets]

* ~~Baumea juncea~~ - Galamup NR (GJK+NG 2123)

now ~~Lepidosperma~~ sp. Z

[site descr as B. juncea closed sedge land, may
now actually be L. sp. Z " "]

- ~~Lepidosperma~~ sp. ~~K. Borabbin~~ - DS 2.9 18/6/98
Pragen Rocks

now ~~Conostylis~~ ~~argentea~~

also - HS 27.5 18/6/98
Harletons

- ~~Lepidosperma~~ ~~fruticosum~~ - DS 22.2 19/8/98

now L. brunonianum

also - DS 8.51 18/8/98

- ~~Schoenus~~ ~~hexandrus~~

- AS 10.9 5/6/98

now ~~Lepidosperma~~ sp. Pl small heads

also - * DS 57.8 NO site
DS 57.

- ~~Lepidosperma~~ sp. ~~K. Borabbin~~

- DS 3.12 19/6/98

now ~~Lepidosperma~~ sp. Pl small heads

BS 8.12

9/7/98

325319

1173009

Steinle lepidosperm sp A2

not on data sheet

* DS 24.5

19/8/98

Schoenus nanius (correct)

not on data sheet

* BO 6.40

3/9/98

320728

1174526

was - Lepidobolus preissianus

x-is - L. chaetocephalus

not on d/sheet

Determined Name:

Field Identification:

Helidrysum leucopsidum

Habit:

spreading soft woolly shrub from a

Form:

Height:

10

Width:

30cm

Plant Notes:

roots thick.

Infl. white; centre yellow; in flower

Landform:

Flat

Soil Surface:

brown sandy clay

Soil Colour:

Soil Type:

Underlying Geology:

Other Horizons:

clay

Vegetation:

Eucalyptus wandoo woodland

Characteristic Species:

Abundance:

common

Other Notes:

Locality:

Quairading Shire Reserve; 3 km west

Latitude:

32° 01.417' S

Town

Longitude: 117° 22.533' E

GPS:

Y N

Collector(s):

G Keighery

No.

15584

Date:

12-10-1998

Voucher for:

Wildflower Society Survey

Record Basis

Specimen / Fruit / Wood / Seed / Wet / Photo / other /

Phenology

Sterile / Fertile / Bud / Flowering / Fruiting

SITES THAT NEED RE-PHOTGRAPHING OR OTHER WORK

Page 1/2

CALM SAP SITES AND LIBBY MATISKE'S SITES

SITE NAME	MISSING PHOTOS			DARK PHOTOS			OTHER
	1997	1998	1999	1997	1998	1999	
TRAYNING	7					1, 9	5 (topo position) 8 Lat/long
HYDEN	~~12, 13~~ 15, 23						5# (surface soil)
~~** DRAGON ROCKS~~	~~12, 22, 30~~ ~~25, 26, 27, 28, 29~~			~~8, 14, 15~~ ~~28, 29, 31~~			
~~** LAKE HURLSTONE~~				~~8, 28, 29~~	~~29~~		
KONDININ				27, 28			15 (topo pos)
MERREDIN	9, 16						
QUAIRRADING	~~21~~			~~2~~			
KELLERBERRIN				~~2~~			2 (aspect), 4 (topo pos)
~~** BOOLANELLING~~	~~14~~			~~9, 13, 16~~ ~~24~~			
~~** CHARLES GARDINER~~	~~11, 12~~			~~11~~			
~~YORK~~	~~1, 2, 10, 11~~						~~7 (topo pos)~~ ~~10 all of it Lat/long~~ ~~11 Lat/long~~ ~~13, 14 (surface soil)~~
WICKEPIN				1, 14, 16			1, (surface soil) 4 reserve name/type
NARROGIN	~~1, 9~~			~~12~~			3, 4, 5, 6, ~~9~~ 10, 11, ~~12~~ (surface soil) 6, (topo pos) ~~12, (aspect)~~ ~~17, nearly all cover sheet~~
~~** BIRDWISTLE NR~~	~~13~~			~~4, 6, 10~~			

MLM SAP SITES AND LIBBY MATISKE'S SITES

SITE NAME	MISSING PHOTOS			DARK PHOTOS			OTHER
	1997	1998	1999	1997	1998	1999	
NORTHAMPTON					3, 4, 6, 9, 10, 11, 13, 19, ?21		15, 20, 21 Lat/long
MULLEWA					1, 13, 17, ?18, 19, 23, 26	if in area maybe in 2 photos of it?	
MORAWA					6, 15		
BEACON		2 - thumb in photo			2, 6, 19		
WONGAN HILLS		4			2, 3, ?5, 11, 15, 17, 20		
JULIMAR/BOLGART		26			5, 6, 11, 21, 23		
WB - Wubin -		18			3, 19a		
DUMBLEYUNG			13			11	12 (aspect)
PINGERUP			14		2 photos same name	?4, 15, 16, 17, 24	1 (topo loc)
LAKE KING			16 - thumb in photo			4, 5, 6, 9, 11, 15, 16,	12 (silt or sandstone) 18 (aspect)
STIRLING			26			22	
UNICUP						3, 9, 13, 16, 17	
~~DARKIN~~			~~26~~			~~22~~	

** LIBBY MATISKE'S SITES

~~Wardle Cons Park - photo ECO 34~~

~~Carrigin Reserves - all photos + sites 13 + 14 covered~~

~~Lake Hurlstone - sites 29 and 24 will need to be rescaned
and re-barrit. due to site photo mix-ups~~