A Report on the Progress of a Temporal Monitoring Programme

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1.0 Introduction

Decisions concerning management of natural areas can only be meaningful, if they are based on a knowledge and an understanding of the distribution and abundance of plant species across the landscape, and an understanding of their interactions with the elements of their biophysical environment at the three levels of individual, population and community. These interactions will be caused by life history attributes such as the processes of ageing, and reproduction, and by physical

some confirmed or direct & indirect effects (2)

influences acting across the landscape such as climate and nearby land-uses. If these interactions can be understood, it would follow that environmental problems could be resolved by making appropriate management decisions. if it is within our power!!

Environmental problems can only be recognised by going into the field and monitoring biological assemblages over time. Is this the only means of recognition?

This type of monitoring is temporal monitoring, and it is the purposeful examination of defined →

biota, and it is aimed at investigating changes in plant communities in order to identify causal relationships.

At the end of 1983, I began to monitor changes in vegetation on nature reserves, and since then I have been designing a monitoring system that would have the following characteristics:

(1) Data would be encoded in the field in order to facilitate their automatic processing.

(2) Only those data should be collected whose analyses would assist the understanding of temporal processes of vegetation communities.

Thus the monitoring system would be an aid to planning in mitigating and preventing resource losses. Moreover, by improving understanding, it would also improve the effectiveness of its own assessment process.

Within the literature, two main approaches to monitoring have been adopted:

(1) The static approach is an inferential approach to the study of change, and it is based on the concept that the major force of change is succession. This approach concentrates on sites which are separated spatially rather than temporally, and then concludes that observed sequences between differently aged sites will also be found at one site through similar temporal sequences.

(2) The dynamic approach is the one adopted here, and it is based on the concept that succession is only one of the factors causing vegetation to change through time. A view gaining acceptance is that vegetation may develop individualistically at any one site. This view is in contrast to the Clementsian concept of succession that vegetation develops predictably in the same sense as a single organism develops towards a characteristically climax community.

This second approach therefore is based on an acceptance that vegetation at any one site may develop individualistically, but common principles apply, and upon extraction, these principles can be used in descriptive models of vegetation change. This second approach therefore involves monitoring vegetation within permanent quadrats through time. Among the sites described below, there are already indications that there are unique combinations of environmental factors, influencing change such as climate, position on the slope, etc.

2.0 The Questions to Be Addressed

An effective monitoring system should have the capacity to address these questions:

(1) Can common principles be extracted from causal relationships and then used to model vegetation change.

(3) Can the static approach (the inferential approach) be used to investigate and describe temporal changes.

(4) Can interactions between biophysical entities be described.

(5) Does a site's biophysical attributes influence rates, and pathways of change.

(6) Does species composition & structure influence rates and pathways of change.

(7) Do temporal changes reflect life history strategies.

(8) Do changes in cover reflect changes in biomass and productivity.

If the widest array of questions are to be addressed then the data collected must be:

(1) Statistically tractable.

(2) Cost effective.

(3) Only of those community attributes which are relevant. The data now being collected by this system are presence

and absence of all species,
biomass and cover as indices
of perennial populations,
and those concerning life
histories of perennial species.

3.0 The Study

In order to test approaches to data collection and processing that could be utilised within a temporal monitoring system I have established fixed quadrats in Darling Range Vegetation, and in York Gum and Jam communities across a rainfall gradient. The communities are described within the Appendix (Part 7.0)

To ensure that quadrats were representative, vegetation communities were first identified either by air photo interpretation or by ground traverses. Sites for permanent quadrats were selected that appeared to be representative in terms of species cover and soil type. This means that quadrats were sited to avoid vegetation boundaries. Species area curves were compiled for some communities in the following way. Nested squares were pegged out, the four outside corners being marked by star pickets. These squares were aligned N S and E W and began as 1m x 1m squares (Fig. 1). Sides were incremented in steps of 1 metre.

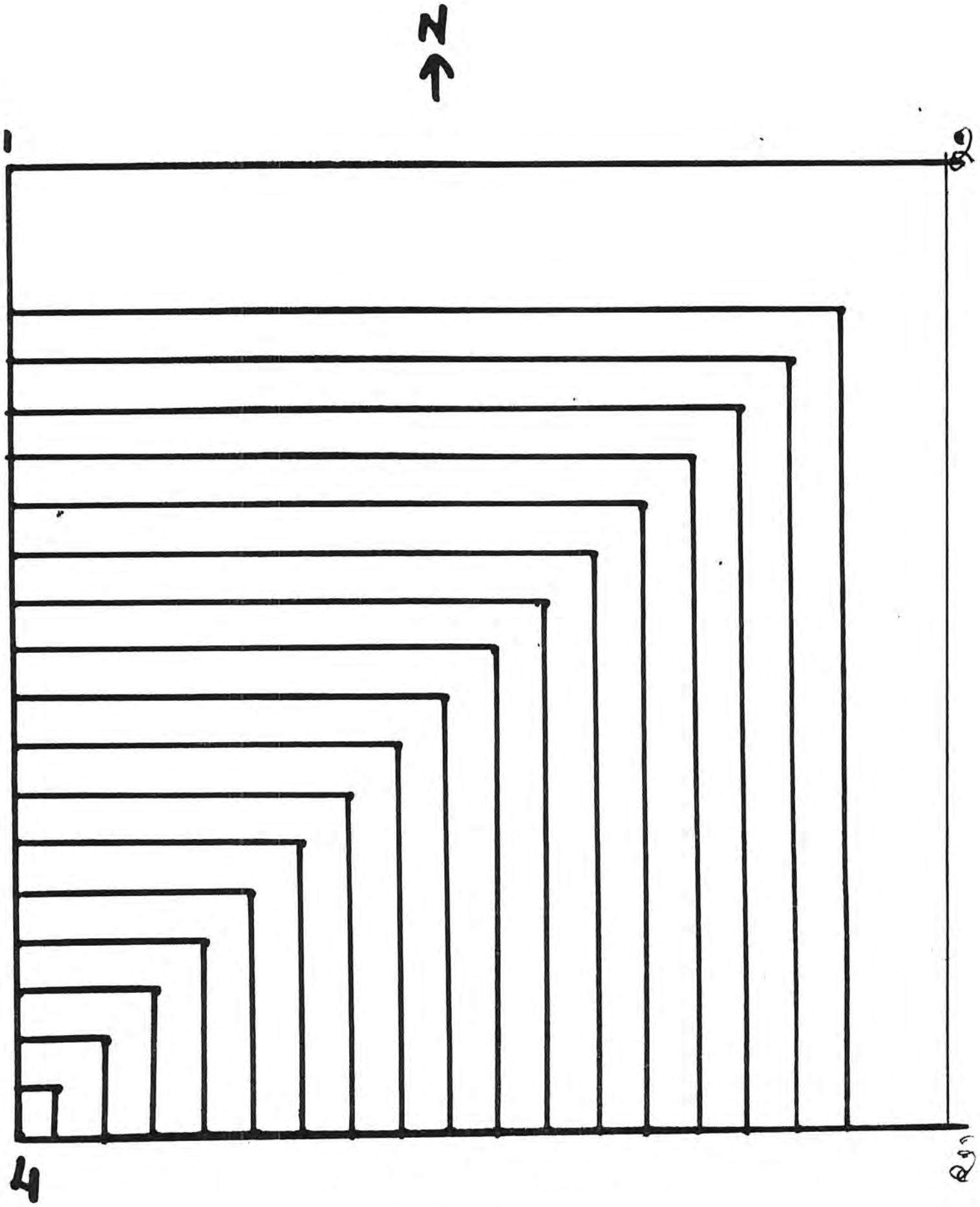


FIGURE 1

. Whether species/area curves were compiled, or not the immediate area outside the quadrat was checked for species not inside. In all examples, a 20-m × 20-m quadrat supports from 80–100% of a community's species. The corners of these squares were numbered clockwise, corner 1 being the NW corner. Cover of perennial species was determined by a line transect along two diagonals and two sides, starting at corner 1, then along corners 2, 4, 3, and returning to 1, a distance of 96.6 metres. For each individual intercepted also recorded was life form, circumference at

breast height, Height to the top and base of the crown, the presence of flowers and/or fruit. ~~and~~ Relative foliage Cover was also recorded. This is equal to the Area of Projected foliage of an Individual divided by the Area of Projected Canopy of the individual. The relationship between Cover (C) (obtained by the line intercept) and Projected Foliage Cover (P.F.C. for a number of individuals is given by:

Powell & Hernandez

$$P.F.C. = C \times R.F.C.$$

The line intercept technique adds a mapping ingredient

to this approach, and therefore facilitates demographic studies.

4.0 Analysis of the Data

Two approaches to analyzing the ~~data~~ collected data are considered. These analyses are based on Principal component ordinations, and demography.

Ordination analyses are attractive because much information can be gleaned from relatively small data sets. In other words, this is a cost effective approach. This is largely due to the fact that many single ~~communities~~ samples of different communities along an environmental spectrum can be selected

to generate a meaningful ordination. This is in contrast to a conventionally designed statistical study which would require the selection of many different communities at each node along the spectrum. The disadvantage in ordination analyses is that they are interpreted by induction, thus interpretations require some prior knowledge of the response of vegetation to the biophysical environment. If the study has been designed appropriately, then the ordination analysis can be expected to partition into components of variability identifiable as

principal component axes which
can be simulated with a
spatial or temporal force
acting on each community
(See Austin's ordination figure 3).

POORLY DRAINED

LOW HEATH 48

49 EWAN+LS

WIL 35

COR 41

32 MOK

CP 36

WA6 22

E.WAN+DRY 31

HIGH RAIN

LOW RAIN

NO2 45

PING 33

DOW 27

BOL 21

PB+DRY 52

ME 48

NO1 29

IM PUMB

BR 28

JAR+SAND 44

JAR 54

WELL

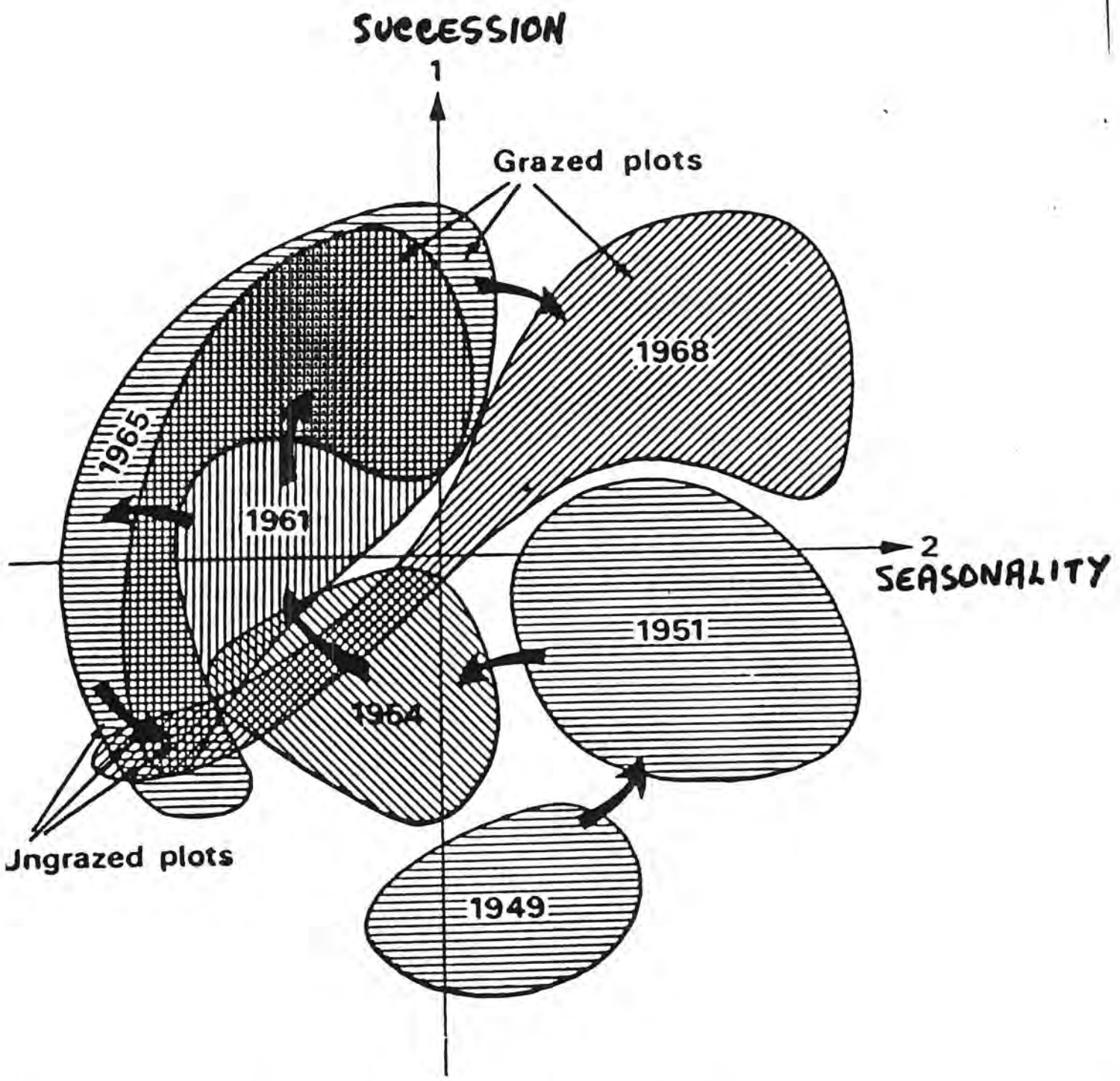
FIGURE 2

Figure 2 shows an ordination based on presence/absence data of 6 Darling Range and 13 Wheatbelt communities. All are relatively pristine and are made up of 287 species. An easily interpreted dimension of variability has been generated by combining two dissimilar groups of vegetation within the same ordination. Darling Range communities are on the right of the vertical axis (axis 2) and the Wheatbelt communities are on the left. Axis 1 (the horizontal axis) is an axis related to longitude, and accounts for 35% of the ordination's total

variability. Axis 2, the vertical axis is one of soil drainage. Sites below the horizontal axis are well drained, and sites above are poorly drained. Axis 2 accounts for 12% of the ordination's total variability. Axis 3, not included here is one of position on the slope. These first three axes of 7 generated by the ordination, account for 56% of the ordination's total variability. This ordination therefore has demonstrated significant correlations between vegetation communities and ~~~

has made it possible to interpret
by induction the causal
relationships between each
floristic assemblage and
the forces which have moulded them.
The forces being simulated by
by each principal component axis.

In the same way, if within the same ordination, the same communities are included, but which have been temporally separated by different sampling events through time, then it could be expected that the forces causing them to change could also be interpreted. In this case, by observing the temporal drift of communities around ordination axes, as in Austin's (1981) ordination of Ila data of ephemeral grassland communities (Figure 3),



distribution of quadrats from different years on the first two principal component ax

FIGURE 3

My ordination indicates that for relatively pristine communities of perennial and ephemeral species an adequate ordination analysis need only be based on presence/absence data. If however a community is impacted by fire, the cover of perennials can be expected to exhibit a dynamic phase, and the understanding of processes would depend upon creating some sorts of models of those changes. After an impact, changes in cover could be a portent of irreversible losses of species. On the other hand, the composition of ephemerals might initially remain relatively consistent for short periods after an impact, and their analysis alone might not be sensitive enough

to indicate problem causing changes. To test what sort of result an ordination based only on perennial cover would generate, I analysed the 13 Wheatbelt communities on the basis of perennial cover (See matrix of cover values Figure 5). This ordination is meaningless because of too few species, but is not due to too few communities (Figure 4).

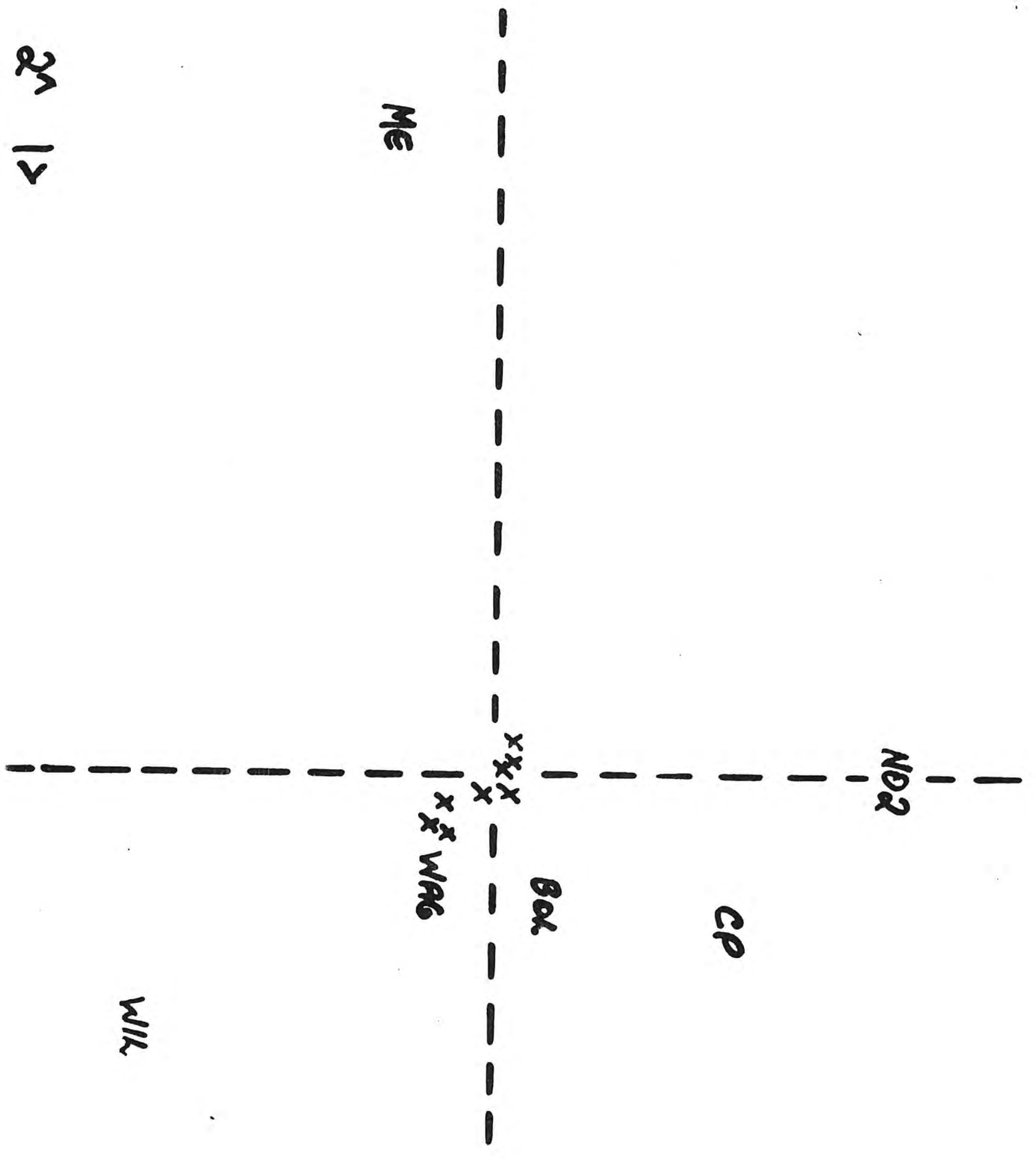


FIGURE 4

Even though the monitoring programme has been operating since the end of 1983, the collected data have not yet been subjected to comprehensive analyses. Refined techniques of data collecting and processing can only be developed from ongoing tests of manipulating and presenting data for interpretation. Even much of the monitoring literature is devoted to this topic.

A W.W.R.C. program which interfaces the Taxon Package available within the CSIRO computer, accomodates only average cover values based on an arbitary field assessment. Cover determinations made in this way by the same experienced technician can

produce objective results between separate quadrats during the same sampling event. Similarly objective results however, cannot be expected from monitoring events separated temporally, and implemented by different technicians. Even slight differences due to subjectivity could influence the ordination result, and thus unfair interpretations of temporal forces which may be operative. However, an intact ephemeral flora may produce various cover results from one year to the next. Cover distributions of ephemerals may

reflect annually fluctuating environmental conditions (Van Leeuwen, 1966). Beefelink 1975 has referred to this as "shuffling within gradient conditions," and the topic has never yet been studied. Consequently, an ordination of ephemeral species by means other than presence/absence data may prove to be very difficult to interpret. These considerations, and the ordination result here suggest that only presence/absence data of ephemerals need be utilized from quadrats of these sizes for ordination analysis. If quantitative data

of perennial cover, collected from line intercept measurements were combined in the same ordination with presence/absence data of ephemerals, then data collection and processing would be standardized, and their analyses would not be impaired by subjectivity. The value of such an approach can only be evaluated by another ordination combining those two data sets, so that the nature of principal component axes can be examined. A survey of the statistical literature suggests that this would be a valid treatment of the data, and a novel one not yet introduced into vegetation studies.

Such a test is only possible if the program interfacing the Taxon Package is slightly modified so that it can accomodate both data sets for a combined ordination analysis.
The second analytic option is based on demography. This option has been considered in the design of these permanent quadrats described here. The line intercept technique makes it possible to determine cover values (Eq. 5) and from these data to approximate cover patterns within quadrats. I expect that temporal changes in the elements of this matrix could be interpreted in the future.

(34)

Species Code / Reserve	19138 BR ROCK	23164 C.P.	16714 COMMEGIN	6313 POWERLIN	PUMBLEY	45594 HERNE D	HOKINE 13.2 L	9754 NAREHILL 01	9754 NAREHILL 02	2Ø23 KINGELLY 01	2Ø23 KINGELLY 02	2Ø23 2Ø23 03	NALLION	29313 WILLIAMS	2321Ø1 VICTORIA PK
1 AHACRH						4·5									
2 A12PHØ						3·8									
3 AØQA6T		8·28	49·8		74·Ø4	·62	86·5	53·83	33·34	67·9	51·97	35·6	61·12	1Ø·56	·Ø4
4 AØQSØT															·Ø4
5 CØJPHØ									1·4						
6 C8NHHØ										1·Ø3	13·25		99·38	51·39	
7 C36QHØ		3·3													
8 D42RHØ		32·65													·49
9 E9JLUY	129·69	47·89	39·Ø5	1Ø1·95	32·7	22·53	92·13		24·62	16Ø·45	57·56	158·12	82·4		88·36
10 E9JS2Ø	21·33														
11 E9JWBH														·83	
12 G1YCDL														·Ø4	
13 G48AHØ						4·64									
14 G84P1G						12·26									
15 HØWPKE					14·7										
16 JØ6SLD															21·1
17 LSADHØ									1Ø1						
18 LSAVHØ						31·68									
19 M3WH8H									14·16						
20 M3WARE											7·48				
21 PCØPHØ					·4										
22 PDLMHØ						7·5									
23 R2APHØ		1·66													
24 SBGSHØ						12·17			46·17						
25 S1LAHØ				18·14											
26 S1LSHØ		4·26							9·5						
27 E9JC4C														87·37	

Absolute Values %
Cover (m2)

5 SAMPLES

Temporal patterns within a quadrat could be documented with as much accuracy as might ever be required by using a coordinate system based on the square quadrat.

An analysis of the matrix in its present format, in order to identify spatial influences on the vegetation communities which have been surveyed cannot be tested now on any statistical bases, except the one described above as a P.C.A. ordination, because the matrix contains too few elements. This problem is not a temporal one, but it could be overcome by increasing the sample size at each site. i.e. install more quadrats.

Within the literature, demographic studies involve observations of density, cover, and frequency of species through time. On such information life tables can be constructed. The labour requirement is so large however, that I have avoided emphasis on this approach during the monitoring programme's early phases, even though this information is ultimately necessary for interpreting P.C.A. analyses, in order to understand causal influences of change i.e. climate, proximity to nearby land-uses, position on the slope, proximity to propagules, etc. In order to demonstrate the great values of demography and phenology to understanding vegetation dynamics, I cite below two good reviews.

Egler (1954) put forward the view that the floristic composition at a site immediately following an impact such as fire will dictate future domination of the site by different species through time. Egler considered that vegetation dynamics at a site will be attributable to concepts other than Clementsian. This type of "succession" he referred to as "relay floristics," and it is influenced by whatever propagules are able to entrench themselves on the site after the original impact. Subsequently species at the site inhibit or facilitate by toleration the entry of new species.

Developing Egler's views Connell and Slatyer (1977) have used examples from Australia and overseas, and have proposed that at a site, one of these three types of vegetation dynamics will be operative at any one time:

(1) The facilitation pathway is the classical or relay floristic pathway.

(2) The tolerance pathway involves species developing on a site because there is mutual tolerance with those species already established there.

(3) The inhibition pathway involves species not developing to maturity on a site in the presence

(3) Species already established there.

Consequently, temporoheterogeneity at a site will reflect the consequence of the availabilities of species, and the life history characteristics of all species which may be encroaching at a site. The factors therefore affecting successional phases are:

(1) Immediately after an impact species composition is influenced by propagules at or near the site.

(2) Subsequently, there is a pulse of regeneration in absence of competition for the site's resources.

(3) Regeneration slows in response to competition.
(4) Recruitment of additional species is facilitated or inhibited by those species present at the site.
(5) Long living perennials and those which can regenerate in the presence of species on the site will dominate.

Comparable phases have also been recognized during a temporal study of regeneration after fire on a [illegible] Callunal heathland (Mallik and Gimingham, 1983 Vegetatio 53 45-58) These are common

principles which may have been extracted and they indicate that common principles do apply to a community's development, but the principles are not necessarily elementary. It cannot be inferred therefore after a single observation of any particular patch of vegetation that it has developed in a certain direction in the past, or in which way it will develop in the future. Studies of vegetation dynamics should be based on an assumption that vegetation can develop along many successional pathways. It follows therefore that at any site temporal

patterns of vegetation and their causal forces need to be investigated before demographic studies can at least begin.

One good example can be found in the study of regeneration of 65 ha of prairie grassland from 1967 to 1977 on a nature reserve in Iowa (Glenn-Lewin, 1980). Grassland dynamics over the period are simply represented by isopercent lines showing the % cover of species.

Using the information cited above, the monitoring system was designed so that it would have the capacity to accomodate

a demographic component. The major problems facing demographic studies of limited labour resources are just how much data should be collected, and how they should be collected. I have compromised by combining line intersect and quadrat techniques. The line intersect has been used to plot and measure perennial cover and other life-form parameters. I have not yet attempted to collect cover of ephemeral species using this technique due to the effort required. The compromise technique adopted,

means that through time:

(1) The same individual can be located.

(2) The same individual's life history attributes can be recorded.

(3) Temporal vegetation patterns can be approximated.

This information has been recorded onto data sheets attached to each set of sample site information

5.0 Field Work

The time spent in the field installing 16 permanent Wheatbelt quadrats was 27 days. The first quadrat was installed in a dense mallee formation on Camel Peaks Nature Reserve just a few kilometres north of Kyden. This was the first time that the line intercept measurements had been taken in the field and the time actually spent on that quadrat was 1½ days, and apart from that, 1½ days was spent in selecting the site. This was the longest time taken in any one of the quadrats. The quickest time taken

was at Nallion Springs in Wagin Shire when Wildlife Officer Sylvester assisted me on that quadrat.

Installation and data coding was most efficient, taking only a few hours in the morning. I found that working alone on these quadrats was most inefficient as a quadrat is difficult to install unaided such that it is geometrically correct. In the future, 1 to 2 man days should be allowed for 2 people working together. For one person it is difficult to state a time requirement. A reasonable expectation however →

would be 2 man days for quadrat for one operator. But this could be more or less depending upon the data needed to be collected within each quadrat. My judgement is that the Data Value / Effort Ratio is a good one.

6.0 Future Work

The value of a temporal monitoring system can only be tested upon field data, their gathering, and manipulation for interpretation purposes. To date however, not much data gathering has actually been completed. I am putting forward therefore some hypotheses for testing, and these are also related to temporal processes. Hypothesis testing could be an integral aspect of the monitoring programme, and also as a means of evaluating data gathering:

The dynamics of E. wendoo communities warrant investigation. Permanent quadrats could be established within these communities to test the effect of aspect on their community dynamics. In marshall Habitat at Dryandra State Forest, 6 permanent quadrats have been established in E. wandoo communities. Some of these have been burned, so it would be opportune to begin sampling these sites as soon as possible. The Null hypothesis to be tested is that:

Ho: Aspect does affect community dynamics.

Lake Toolibin in the Wheatbelt has a dynamic environment related to fluctuating of surface and underground waters. During the last 10 years much information has been collected from about 20 permanent quadrats concerning She-oak and flooded Gum communities, and the hydrology of each site. Two null hypotheses could be tested, that are related to environmental fluctuations and their effects on the cover of

different life forms:

(i) Ho: Surface and underground water regimes do influence the dynamics of vegetation communities of the lake.

(ii) Ho: Surface and underground water regimes cause gradient shuffling in the sawfish communities of Lake Tolibin, and other lakes nearby.

The final recommendation concerning future work has been recorded in the file documentation which has been initiated for each sample site. That is that future sampling events should be at a frequency of three years, until this is found necessary to modify from site to site.

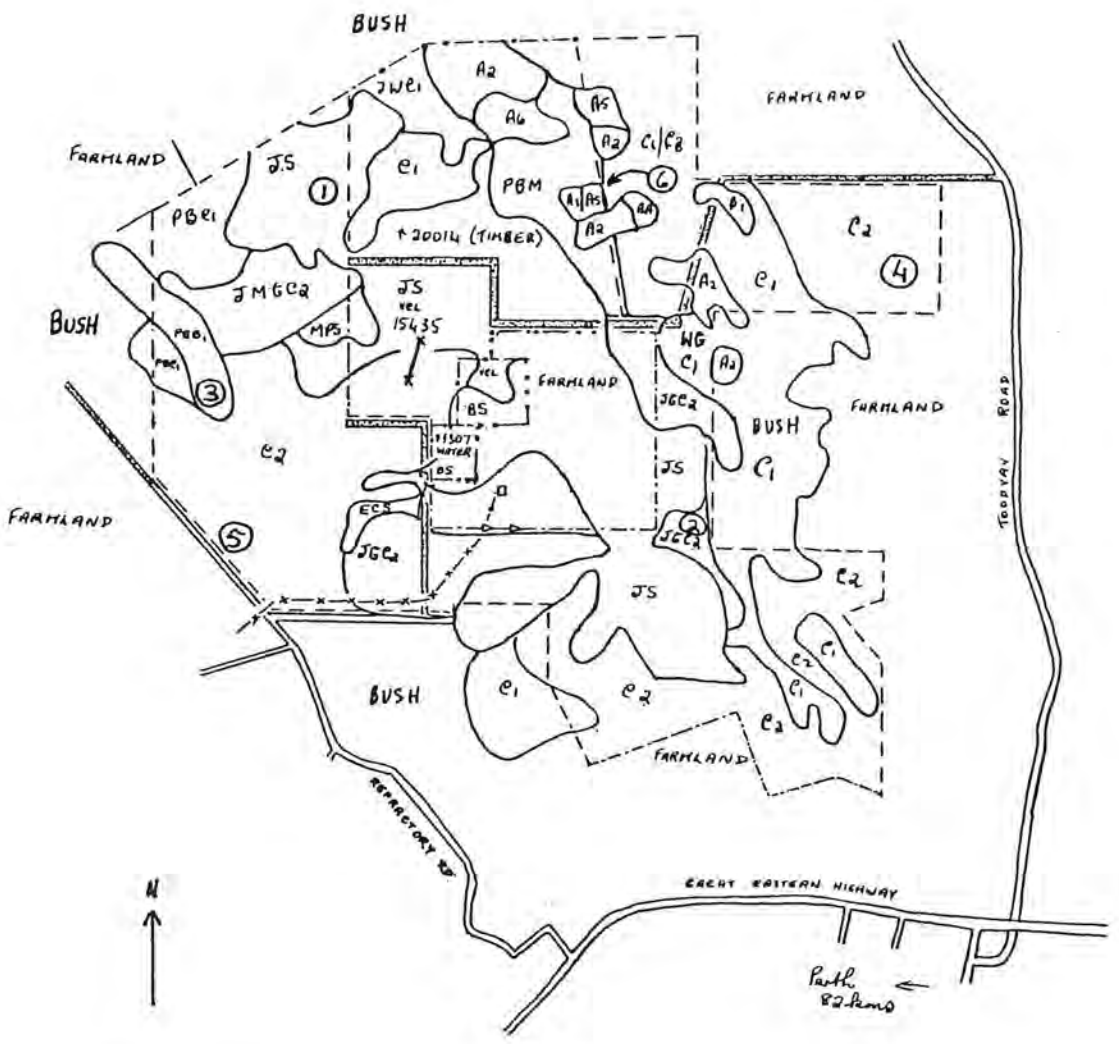
7.0 Appendix

(5/4)

Nature Reserve name and/or number	Clackline
Local Authority	Toodyay & Northam
Map	Litho 27/80
Area (ha)	864
Nearest named place	2.4 kms N of Clackline
Sample Site	01
Coordinates	31°41", 116°29"
Access	See Attached Map
Dominant Vegetation	Jarrah Woodland
Nos Species	44
Vegetation Details	Attached
Physical Features	Deep quartzitic sands
Last Fire	More than 20 years
Proceeded from Lowest Rock	Yes
Sampling Methods	20 m × 20 m Quadrat Species/area, Species/ha
Date Sampled	October 1983
Next Sampling	October 1986


AVON
"Glen Avon"
NORTHAM TOODYAY Road
Katrine
Viveash Causeway
Pipeline No
ROAD
Road
KATRINE
No
ROAD
SHIRE
GABIMINGA HILL
NOONDEENING HILL
"Balee Farm"
Gabiminnuny Spring
Jilyading
NORTHAM TOODYAY Road
Mistake
YEEGOLYNE KATTA
"Egoline"
Boundary
BOBAKINE
Road
Wandenakine Spring
SMITH
NAVAMULLEN LAKE
"Nanemullen"
HILLS
ROAD
Lawnswood
"Lawnswood"
BOBAKINE
432 m
HIGHWAY
Pipeline
Chenmier
Hill
Mokine
Gully
EASTERN
Gully
Shepherd
CLACKLINE
See Enlarged Plans
"Glen Avon"
"Range View"
GREAT
"Avon View"
Eadine Well
Pipeline
Eadine
Transmission
1:10000 BH 35/3.3
"Plumfoss"
1:2000 BH 35/12.10
"Morskate"
MOKINE A.A.
Brook
Closed Road
"Warranine"
Warranine
Warranine Spring
Cloverlea
WARRANINE SUBURBAN AREA
Spencers
CLACKLINE Rd
MOKINE HILL
"Mokine"
Mokine
Rd No 1375
CORDELIN
MOKINE
Trimmer
1106,129
1865
40.4686 ha
CG
T
S
X
Y
Z
b
b1
b2
17
16
49
768
5297
3803
3763
5077
4669
4620
2142
2082
2099
1973
2043
21584
21583
21586
21588
M144
M1375
M32
1053
PT A420

CLARKLINE NATURE RESERVE
VEGETATION COMMUNITIES



MAP 1 QUADRATS ②
TRANSECT 1 x——x

Reserve Clackline
Species at Sample Site 01

Petrophile serruriae
Hibbertia hypericoides
Dryandra nana
Gompholobium sp.
Eucalyptus marginata
Daviesia decurrens
Leptospermum angustatum
Calytrix sp.
Synaphea petiolaris
Stylidium diuroides
Xanthorrhoea preissii
Hakea multilineata
Hakea trifurcata
Leptospermum pubescens
Stackhousia brunonis
Melaleuca subtrigona
Macrozamia reidlii
Leucopogon sp.
Briozanthus humilis
Thysanotus tenellus
Lechenaultia biloba
Eremaea pauciflora
Baeckia camphorosmae
Calothamnus quadrifidus
Jacksonia floribunda
Dillwynia sp.
Briza minor
Briza maxima
Leptanthus nigricans
Stylidium filifolium
Calothamnus sanguineus

Reserve Clackline
Species at Sample Site 01

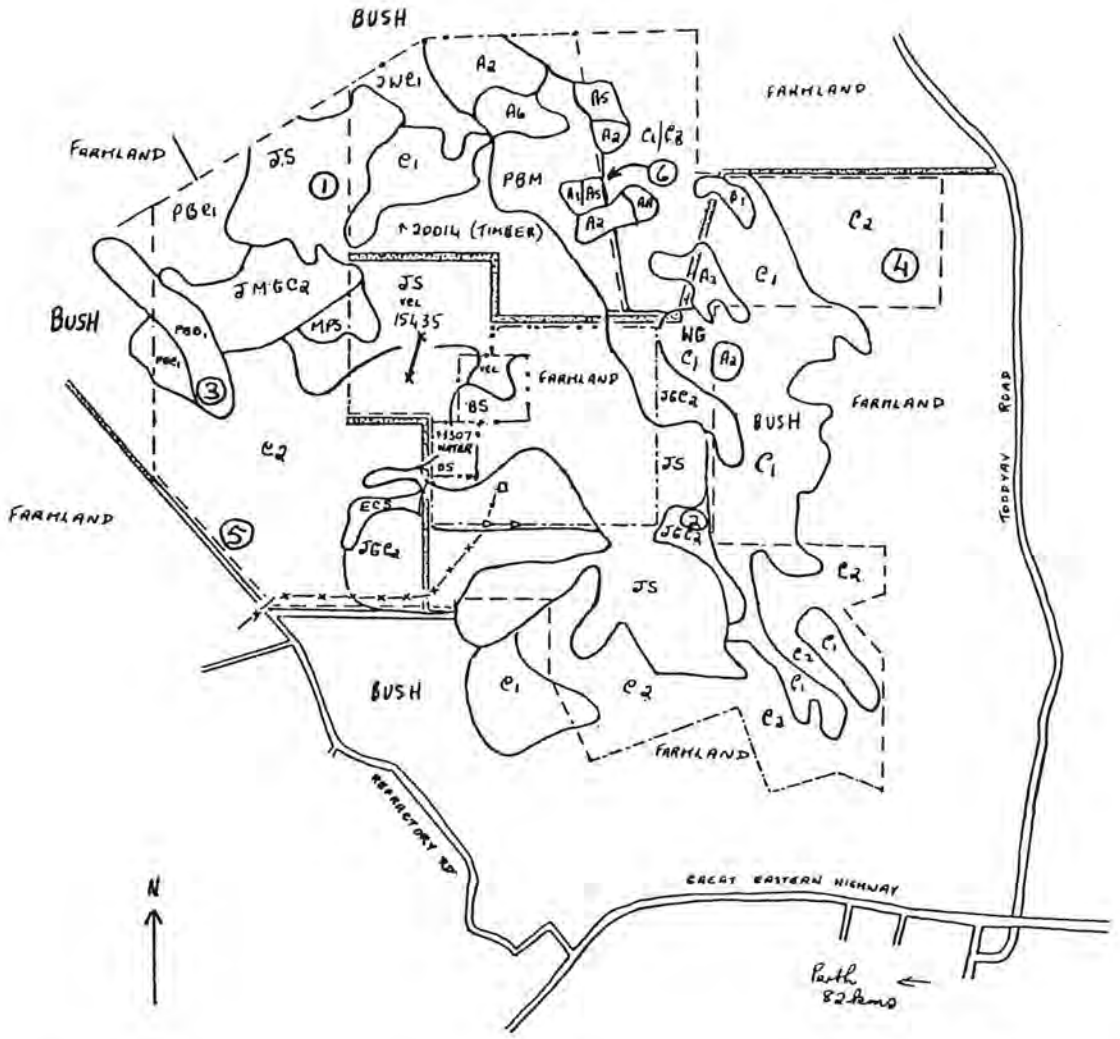
Grevillea sp.
Pterostylis turfosa
Pterostylis barbata
Andersonia sp.
Borya nitida
Drosera macrantha
Caladenia flava
Stirlingia latifolia
Hakea sp.
Leucandra sinuosolens
Bossiaea eriocarpa
Hovea trisperma
Conostylis setigera
Lygenia ciliata

Nature Reserve name and/or number	Clacklane
Local Authority	Toodyay and Northam
Map	Zitko 27/80
Area (ha)	86 ha
Nearest named place	2½ kms N of Clacklane
Sample Site	02

Sample Site	02
Coordinates	31°42", 116°30"
Access	See Attached Map
Dominant Vegetation	Jarrah Woodland
Nos species	54
Vegetation Details	Attached
Physical features	Laterite gravel ridge
Last fire	more than 20 years
Proceeded from Lemnlock	Yes
Sampling methods	20m x 20m Quadrat Species/area, Species/a
Date Sampled	October 1983
Next Sampling	October 1986


AVON
NORTHAM TOODYAY Road
"Glen Avon"
Pipeline No
Katrine
Viveash Causeway
SHIRE
ROAD
KATRINE Road
GABIMINGA HILL
NOONDEENING HILL
"Baree Farm"
Gabbinbunning Spring
Jilyading
NORTHAM TOODYAY Road
Mistake
YEEGOLYNE KATTA
"Eqline"
Pipeline
SHIRE OF TOODYAY
BOBAKINE
Wandmakine Spring
NANAMULLEN LAKE
"Nanamullen"
CLACKLINE TOODYAY Road No
HILLS
Brook ROAD
Lawnswood
"Lawnswood"
BOBAKINE 432 m
HIGHWAY
Chimney Hill
Mokine Gully
EASTERN
MONDAY HILL
"Milton Farm"
CLACKLINE
See Enlarged Plans
"Glen Avon"
"Range View"
Shepherd Gully
GREAT
"Avon View"
BAKERS HILL
See Enlarged Plans
"Bentrake"
"Oxbow"
"Plantoss"
"Alfalfa Park"
Pipeline
Eadine Well
Eadine Transmission
1:10000 BH 35/3.3
1:2000 BH 35/12.10
"Morshate"
MOKINE A.A.
"Mokine"
Warranine Spring
Warranine
WARRANINE SUBURBAN AREA
1:10000 BH 35/3.2
Closed Road
Clayerlea
MOKINE HILL
Mokine
Wandmakine Creek
SPENCERS BROOK
Spencers Brook
Clackline No
Clod Rd
COROJIN
MOKINE ROAD
Rd No 1375
PTA420
Common
TRIMMER
Pipeline
1106 1298

CLACKLINE NATURE RESERVE
VEGETATION COMMUNITIES



MAP 1 QUADRATS ②
TRANSECT 1 ×——×

Reserve Clackline
Species at Sample Site 02

Dryandra bipinnatifida
Banksia ericaefolia
Trachymene cyanopetala
Hakea carinophylla
Isopogon anethifolius
Melaleuca teretifolia
Acacia pulchella
Dryandra sessilis
Petrophile seminuda
Hibbertia hypericoides
Hibbertia commutata
Dryandra nana
Podotholobium sp.
Stylidium complicatum
Eucalyptus marginata
Eucalyptus calophylla
Eucalyptus drummondii
Daviesia decurrens
Lepidosperma tenue
Lepidosperma angustatum
Jacksonia restioides
Calytrix sp.
Podotholobium knightiana
Synaphea petiolaris
Hemiandra pungens
Conostylis setigera
Stylidium diuroides
Xanthorrhoea gracilis
Xanthorrhoea preissii
Xanthorrhoea reflexa
Tricoryne elatior
Styphelia tenuiflora

Reserve Clackline
Species at Sample Site 02

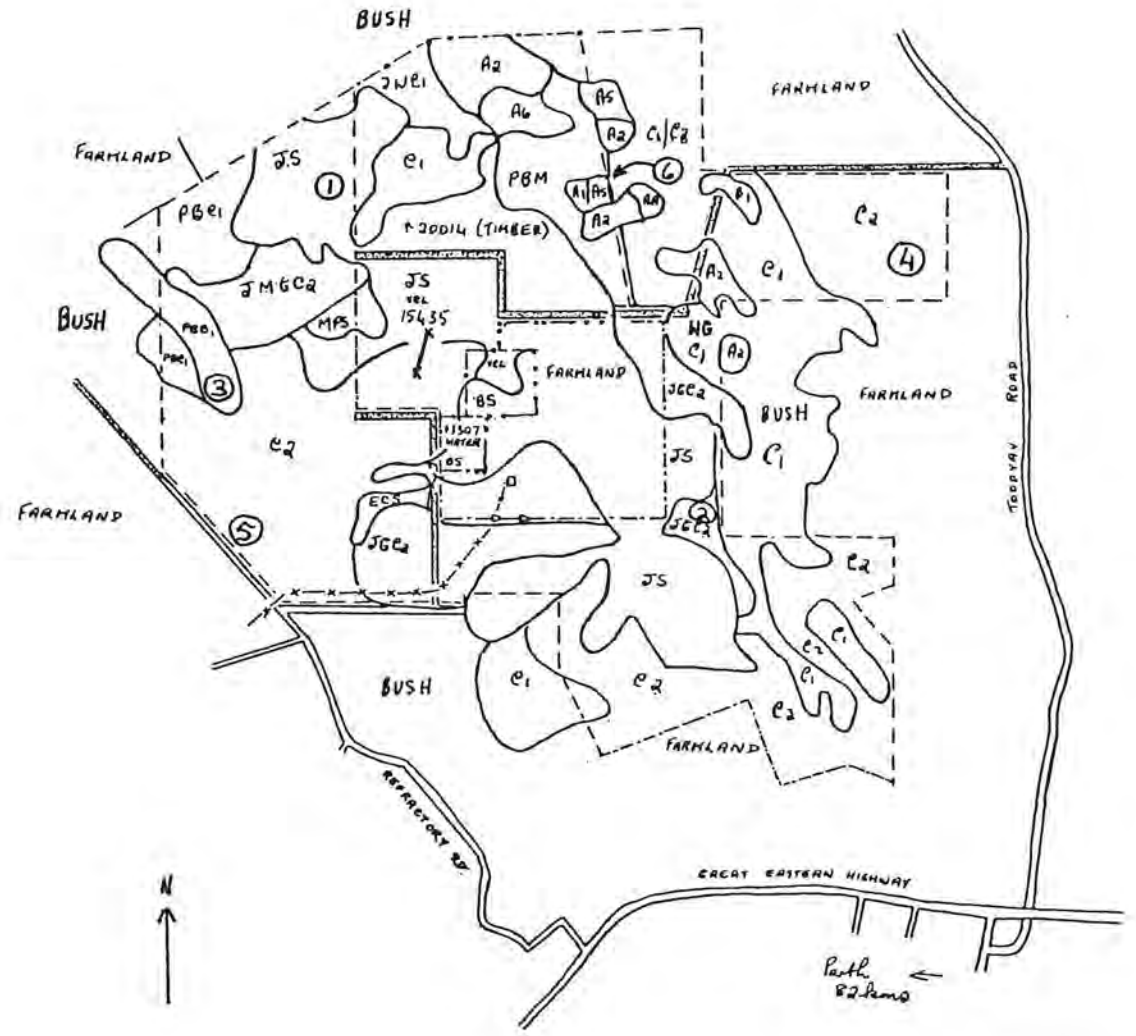
Hakea nuciferia
Hakea lissocarpha
Hakea undulata
Hakea trifurcata
Stylidium subigerum
Leptospermum erythrocoma
Leptospermum ellipticum
Paderosia juncea
Hakea ivoryana
Stylidium diuroides
Stackhousia brunonis
Drosera leucoblasta
Podotheca sp.
Waitzia sp.
Waitzia cuprina
Melaleuca holosericea
Dampiera lavandulacea
Petrophile striata
Macrozamia riedlii
Calytrix flava
Hibbertia pungens
Leucopogon sp.
Stylidium schoenoides
Hakea sp.
Amigathamnus humilis
Thysanotus tenellus
Dryandra praemorsa

Nature Reserve name and/or number	Clackline
Local Authority	Toodyay and Northam
Map	Litho 27/50
Area (ha)	864
Nearest named place	2½ kms N of Clackline
Sample Site	03

Sample Site	03
Coordinates	31°42", 116°29"
Acres	See Attached Map
Dominant Vegetation	Powder Bark Wandoo Woodland
Nos of Species	52
Vegetation Details	Attached
Physical Features	Lateritic Gravel Ridge
Last Fire	more than 20 years
Proceeded from Liverlock	Yes
Sampling methods	20 m x 20 m Quadrat Species/area, Species/10
Date Sampled	October 1983
Next sampling	October 1986


AVON
NORTHAM-TOODYAY Road
"Glen Avon"
Katrine
Viveash Causeway
ROAD
KATRINE Road
SHIRE
GABIMINGA HILL
NOONDEENING HILL
"Belee Farm"
Gabbintumming Spring
Jilyading
HIRE
OF
OODYAY
Highway
NORTHAM-TOODYAY Road
YEEGOLYNE KATTA
"Egoline"
Pipeline
BOBAKINE
Wandinakine Spring
SMITH
NANAMULLEN LAKE
"Nanamullen"
CLACKLINE-TOODYAY Road
SHIRE OF TOODYAY
HILLS
Brook ROAD
Lawnswood
"Lawnswood"
BOBAKINE
432 m
GREAT EASTERN HIGHWAY
Chimney Hill
Gully
MONDAY HILL
"Milton Farm"
CLACKLINE
See Enlarged Plans
"Glen Avon"
"Range View"
"Avon View"
BAKERS HILL
See Enlarged Plans
Bentrate
Oxbow
Plumbago
Alpha Peak
Eadine Well
Eadine
Transmission
Pipeline
1:2000 BH 35/12.11
1:2000 BH 35/12.10
1:10000 BH 35/3.3
"Morskate"
MOKINE A.A.
"Mokine"
MOKINE HILL
Mokine
Warranine
Warranine Spring
"Quverlea"
WARRANINE SUBURBAN AREA
Spencers Brook
Closed Road
Clackline Rd
Rd No 1378
CORDUN MOKINE Road
EASTERN GREAT Road
RAILWAY
Pipeline
Transmission
CG
1866
40.4686 ha
2142
43.3014 ha
2082
40.4686 ha
2099
48.1576 ha
1973
40.4686 ha
2043
40.4686 ha
M44
45.1224 ha
M1375
1963
M32
100.1572 ha
17
5297
21584
21583
22.0630 ha
22.1935 ha
4669
64.7497 ha
4620
64.7497 ha
3803
40.4686 ha
5297
73.9801 ha
3763
64.7497 ha
5077
64.7497 ha
16
384.0704 ha
49
95.7309 ha
768
98.4600 ha
PT A420
abt 336.8891 ha
Common
A 33254
A 34902
28695
1.5435 ha
Public Recreation
A 33801
28529
1.2654 ha
Public Recreation
A 14890
20632
School
104.8309 ha

CLACKLINE NATURE RESERVE
VEGETATION COMMUNITIES



MAP 1 QUADRATS ②
TRANSECT 1 ×——×

Reserve Clackline
Species at Sample Site 03

Bryandra bifimbrifida
Trachymene cyanopetala
Lira carnosophylla
Velleia dentifolia
Acacia pulchella
Petrophile serruriae
Hibbertia hypericoides
Hibbertia commutata
Bryandra nana
Eucalyptus calophylla
Daviesia decurrens
Jacksonia nematoclades
Calytrix sp.
Synaphea petiolaris
Xanthorrhoea preissii
Tricoryne elatior
Hakea lissocarpha
Hakea trifurcata
Leptospermum erubescens
Waitzia citrina
Melaleuca holosericea
Petrophile striata
Leschenaultia biloba
Lomandra suaveolens
Bossiaea eriocarpa
Conostylis setigera
Eucalyptus accedens
Bryandra sessilis
Hypocharis glabra
Chamaescilla corymbosa
Bossiaea ornata
Gompholobium marginatum

Reserve Clackline
Species at Sample Site 03

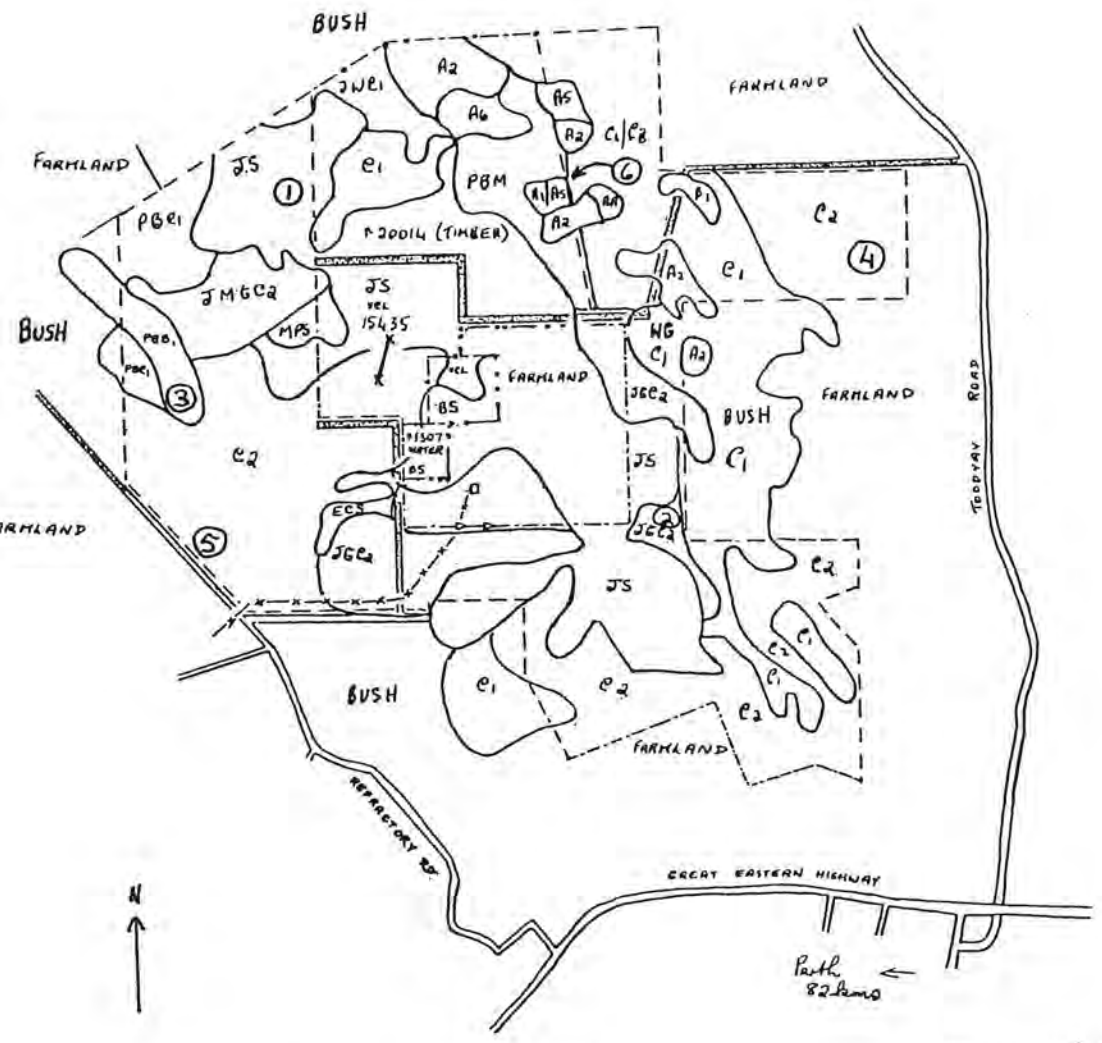
Stylidium rhynocarpum
Gyrocarpus cordiger
Sphaerolium medium
Stylidium complicatum
Waitzia paniculata
Blossazubrina campestris
Gompholobium preissii
Arctotheca calendula
Drosera leucoblasta
Adenanthos cygnorum
Neurachne alopecuroides
Eucalyptus wandoo
Podosonia juncea
Dampiera linearis
Gompholobium shuttleworthii
Melaleuca scabra
Stylidium coricifolium
Stylidium brunonianum
Patrolona fallidum
Vellia triverva

Nature Reserve name and/or number	Clackline
Local Authority	Toodyay and Northam
Map	Litho 27/80
Area (ha)	864
Nearest Named Place	2.4 km N of Clackline
Sample Site	04

Sample Site	04
Coordinates	31° 42", 116° 31"
Access	See attached map
Dominant Vegetation	Wandoo Woodland
Nos of Species	49
Vegetation Details	Attached
Physical Features	Brown loam with granite outcrops at lower slopes.
Last fire	more than 20 years
Proceeded from Quenlock	Yes
Sampling methods	20 m × 20 m quadrat Species/area, Species/a
Date Sampled	October 1983
Next Sampling	October 1986


AVON
NORTHAM-TOODYAY Road
"Glen Avon"
Pipeline No
Katrine
Viveash Causeway
ROAD
Road
KATRINE
No
SHIRE
"Belloe Farm"
GABIMINGA HILL
NOONDEENING HILL
Gabbinunning Spring
Jilyading
HIRE
OF
OODYAY
Mistake
NORTHAM-TOODYAY Road
"Egoline"
YEEGOLYNE KATTA
Pipeline
1865
40.4686 ha
CG
Z
CG
b
CG
b1
CG
b2
CG
17
CG
16
BOBAKINE
Wandinukine Spring
SMITH
Creek
EASTERN
HILLS
ROAD
Brook
Lawnswood
"Lawnswood"
BOBAKINE
432 m
HIGHWAY
GREAT
Pipeline
Chimney
Hill
Gully
Gully
Shepherd
Moxine
Brook
MONDAY HILL
"Milton Farm"
CLACKLINE
See Enlarged Plans
"Glen Avon"
"Range View"
"Avon View"
Eadline
Well
BAKERS HILL
See Enlarged Plans
"Bentvale"
"Oxbow"
"Plainfoss"
"Adelphi Park"
"Morskate"
Pipeline
Brook
Closed Road
MOKINE A.A.
"Mokine"
MOKINE HILL
Mokine
"Warranine"
Warranine
Warranine Spring
Cloverlea
WARRANINE SUBURBAN AREA
1:10000 BH 35/3.3
1:10000 BH 35/3.2
1:2000 BH 35/12.14
1:2000 BH 35/12.10
000 BH 35/11.10
2000 BH 35/11.11
NANAMULLEN LAKE
"Nanamullen"
Nanamullen
CLACKLINE TOODYAY Road
SHIRE
OF
TOODYAY
M1830
M1375
1983
M44
M32
M11
2142
2082
2099
1973
2043
5297
3803
3763
5077
4668
4620
21584
21583
21582
21586
768
49
PT A420
Cond. Rd
CORDUM
MOKINE
ROAD
Rd No
EASTERN
GREAT
NORTHERN
Spencers
Brook
Creek

CLARKLINE NATURE RESERVE
VEGETATION COMMUNITIES



MAP 1 QUADRATS ②
TRANSECT 1 ×——×

Reserve Clackline
Species at Sample Site One.

Largenifera huegelii
Cheilanthes tenuifolia
Dryandra fraseri
Hibbertia cuneiformis
Hibbertia hypericoides
Acacia pulchella
Hibbertia hypericoides
Eucalyptus calophylla
Haemodorum laxum
Conostylis setigera
Xanthorrhoea preissii
Hakea lissocarpha
Hakea undulata
Hakea trifurcata
Leptospermum erubescens
Macrozamia reidlii
Hypocalymma tenellum
Briza minor
Briza maxima
Bromus rigidus
Caladenia flava
Drosera macrantha
Hypochoeris glabra
Chamaescilla corymbosa
Gonocarpus nodosus
Arctotheca calendula
Neurachne alopecuroides
Eucalyptus wandoo
Dampiera linearis
Stylidium coronifolium
Podolepis sp.
Caladenia reptans

Reserve Clackline
Species at Sample Side 04

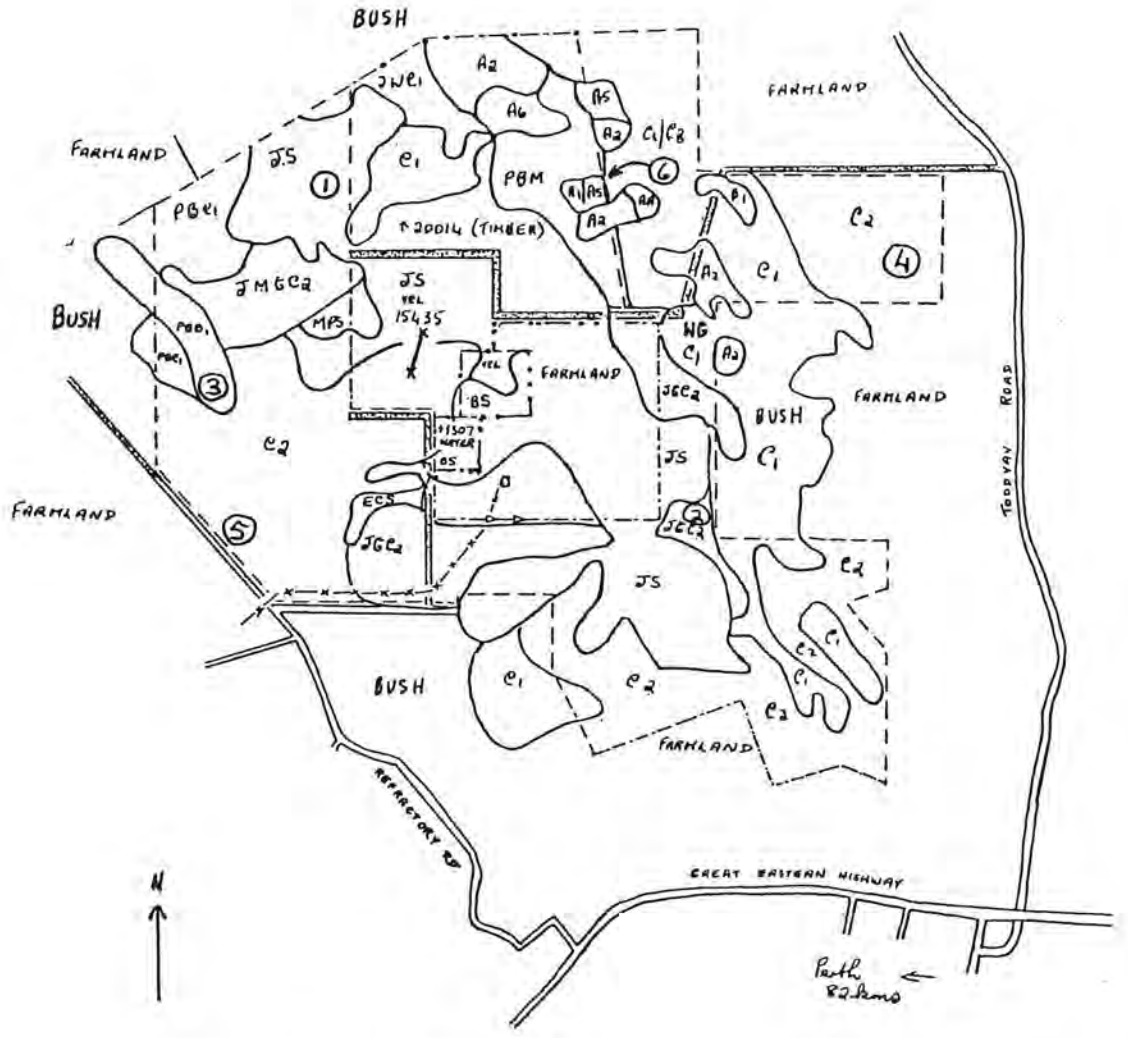
Drosera manglesii
Loxocarya sp.
Velleia, demissum
Leucheokia sp.
Psilotus manglesii
Waitzia paniculata
Velleia loreskii
Gastrolobium spinosum
Berchardia umbellata
Anagallis arvensis
Calocephala drummondii
Sowerbaea laxifolia
Phyllanthus calycinus
Waitzia aurea
Avena fatua
Hypocalymma angustifolium
Stipa sp.
Gliochrocaryon aurea
Lehania octandra

Nature Reserve name and/or number	Clacklane
Local Authority	Tendring and Northern
Map	Letho 27/80
Area (ha)	86.4
Nearest named Place	2½ kms N of Clacklane
Sample Site	05

Sample Site	05
Coordinates	31°41", 116° 29"
Recess	See attached map
Dominant Vegetation	Wandoo Woodland
Nos of species	31
Vegetation Details	Attached
Physical features	Lateritic loam at lower slopes
Last fire	more than 20 years
Protected from livestock	Yes
Sampling methods	20 m x 20 m quadrat Species/area, Species 1/a
Date sampled	October 1983
Next sampling	October 1986


AVON
NORTHAM TOODYAT Road
"Glen Avon"
Pipeline No
Katrine
Viveash Causeway
ROAD
Road
KATRINE
No
ROAD
SHIRE
GABIMINGA HILL
NOONDEENING HILL
"Balee Farm"
Gabiminning Spring
Jilyading
HIRE
OF
ODYAY
NORTHAM TOODYAT Road
Mistake
YEEGOLYNE KATTA
"Egoline"
Pipeline
CG
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b2
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CG
Y
BOBAKINE
Road
2142
43.9014 ha
2082
40.4686 ha
Wandmakine Spring
2099
48.1576 ha
2043
40.4686 ha
1973
40.4686 ha
M44
46.1324 ha
M32
100.1572 ha
M1375
331.6766 ha
1083
SMITH
435
M1830
M1365
NANAMULLEN LAKE
"Nanamullen"
Nanamullen Brook
CLACKLINE-TOODYAY
SHIRE
OF
TOODYAY
HILLS
ROAD
Brook
Lawnswood
"Lawnswood"
BOBAKINE
432 m
CLACKLINE
See Enlarged Plans
"Range View"
BAKERS HILL
See Enlarged Plans
"Bentrakin"
"Oxbow"
"Plainfoss"
"Alfalfa Park"
1:2000 BH 35/12.11
1:2000 BH 35/12.10
1:10000 BH 35/3.3
"Glen Avon"
Gully
GREAT
"Avon View"
Faulne Well
Pipeline
Eadline
Transmission
"Morskate"
Clackline
Brook
MOKINE A.A.
"Warranine"
Warranine
Warranine Spring
Closed Road
"Cloverlea"
WARRANINE SUBURBAN AREA
EASTERN
HIGHWAY
Chimney Hut
Gully
Shepherd
Mokine
Gully
Brook
Spencers
CLACKLINE No
CROSS ROAD
MOKINE HILL
"Mokine"
Mokine
Road
Clad Rd
CORDLIN
MOKINE
Rd No. 1375
Pipeline
TRAMWAY
GREAT
Road
EASTERN
Creek
PTA420
Common
"Milton Farm"
MONDAY HILL
CG 5297
CG 21584
21583
22.0630 ha
CG 4669
64.7497 ha
CG 4620
64.7497 ha
CG 3803
40.4686 ha
CG 5297
73.9801 ha
CG 3763
64.7497 ha
CG 5077
64.7497 ha
CG 16
364.0704 ha
CG 49
95.7309 ha
CG 768
98.4600 ha
CG 21582
CG 21585
CG 21586
PTA420
1106 129
4.33902
28595
4.33801
28529
Public Recreation

CLACKLINE NATURE RESERVE
VEGETATION COMMUNITIES



MAP 1 QUADRATS ②
TRANSECT 1 ×——×

Reserve Clackline
Species at Sample Site 05

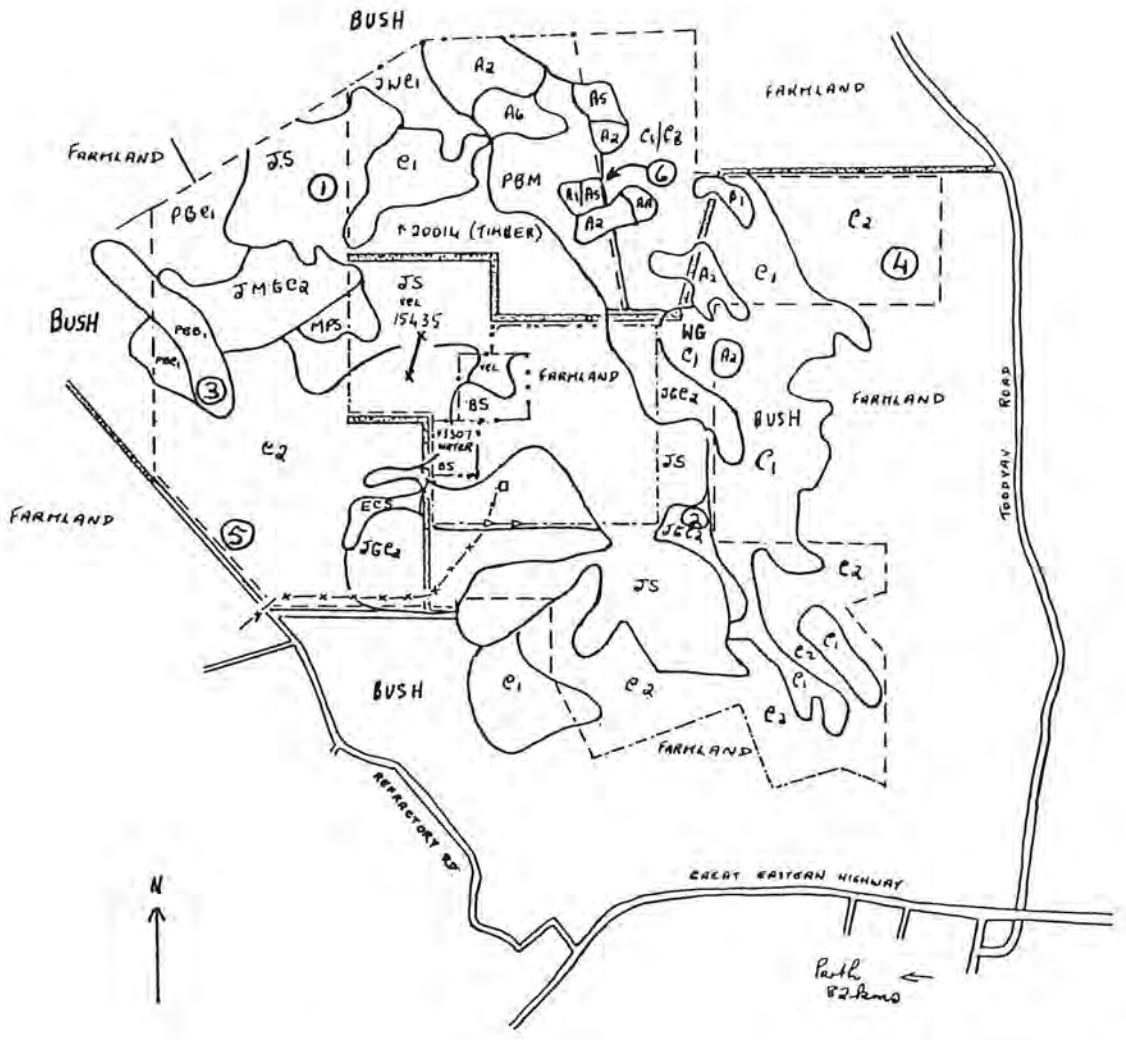
Pedrophile resupinata
Liliaceae communata
Dryandra nana
Eucalyptus calophylla
Conospermum densiflorum
Jacksonia dendroides
Xanthorrhoea preissii
Hakea lissocarpha
Leptospermum ellipticum
Waitzia citrina
Melaleuca subtrigona
Caladenia flava
Baeckia camphorosmae
Briza minor
Briza maxima
Borya nitida
Lambertia ruscifolia
Banksiaea sessilis
Chamaescilla corymbosa
Allocasuarina huegeliana
Allocasuarina campestris
Adenanthos cygnorum
Eucalyptus todtiana
Stylidium brunonianum
Leucopogon sp.
Pterostylis vanglesii
Dryandra carduacea
Jacksonia horridus
Isotropis cuneifolia
Grevillea sp.
Dryandra nobilis
Dampiera lavandulacea

Nature Reserve name and/or number	Clacklane
Local Authority	Tandridge and Northam
Map	Litho 27/80
Area (ha)	86.4
Nearest named Place	2.4 km N of Clacklane
Sample Site	06

Sample Site	06
Coordinates	31° 41", 116° 30"
Access	See attached map
Dominant Vegetation	Low heath with blackboys (X. preissii) as emergents
Nos species	48
Vegetation Details	Attached
Physical Features	Shallow gravelly soil over granite subject to intermittent waterlogging
Last fire	more than 20 years
Proceeded from Quenda	Yes
Sampling methods	20-m × 20-m quadrat Species/area, Species 1/a
Date sampled	October 1983
Next sampling	October 1986


AVON
NORTHAM TOODYAY Road
"Glen Avon"
Pipeline No
Katrine
Viveash Causeway
ROAD
Road
KATRINE
No
ROAD
SHIRE
GABIMINGA HILL
NOONDEENING HILL
"Bolee Farm"
Gabbimunnuny Spring
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OF
ODYAY
NORTHAM TOODYAY ROAD
"Egoline"
YEEGOLYNE KATTA
Pipeline
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17
BOBAKINE
Road
2142
2082
40.4686 ha
43.3014 ha
Walldinakine Spring
2099
48.1576 ha
1973
40.4686 ha
2043
40.4688 ha
M44
45.1224 ha
M1375
1963
M32
100.1572 ha
NANAMULLEN LAKE
"Nanamullen"
SHIRE
OF
TOODYAY
HILLS
ROAD
Brook
Lawnswood
"Lawnswood"
BOBAKINE
432 m
HIGHWAY
EASTERN
GREAT
Pipeline
Clummer
Hull
Gully
Shepherd
MONDAY HILL
"Milton Farm"
3803
40.4686 ha
5297
73.9801 ha
3763
64.7497 ha
5077
64.7497 ha
4669
64.7497 ha
4620
64.7497 ha
CLACKLINE
See Enlarged Plans
"Glen Avon"
"Range View"
"Avon View"
BAKERS HILL
See Enlarged Plans
Pipeline
Eadine Well
Eadine
"Bentraka"
2000 BH 35/11.11
1:2000 BH 35/12.11
"Oxbow"
"Plantoss"
"Alkala Park"
2000 BH 35/11.10
1:2000 BH 35/12.10
Pipeline
Brook
Closed Road
"Morskate"
"Warranine"
Warranine Spring
Warranine
"Cloverlea"
1:10000 BH 35/3.3
MOKINE A.A.
"Mokine"
MOKINE HILL
Mokine
Brook
Spencers
Brook
Road
CLACKLINE No
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CURBLIN
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PTA 420
Common
PTA
16
364.0704 ha
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CLARKLINE NATURE RESERVE
VEGETATION COMMUNITIES



MAP 1 QUADRATS ②
TRANSECT 1 ×——×

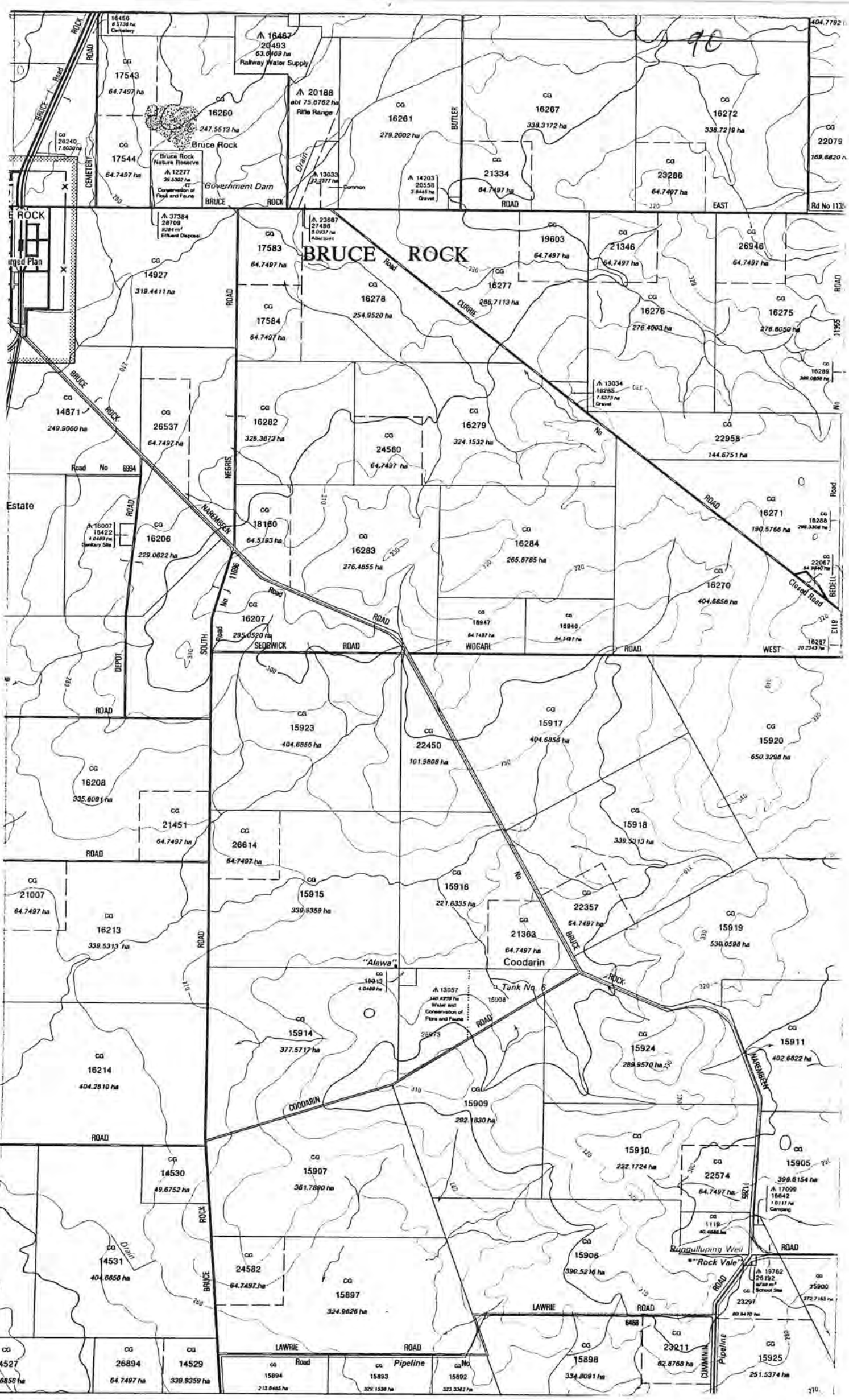
Reserve Clackline
Species at Sample Site 06
Caesia parviflora
Trachymene cyanopetala
Rina coryophylloides
Reggia pulchella
Ribbentia communtata
Eucalyptus calophylla
Jacksonia restioides
Calytrix sp.
Xanthorrhoea preissii
Hakea undulata
Leptospermum erubescens
Melaleuca holosericea
Lysinemus teretifolius
Bacchia corymbosa
Borya nitida
Drosera macrantha
Eucalyptus accedens
Chamaescilla corymbosa
Gonocarpus nodosus
Hibbertia hypericoides
Neurachne alopecuroides
Patersonia juncea
Stylidium coriifolium
Stylidium brunonianum
Loeseliochloa sp.
Trilepis drummondii
Waitzia paniculata
Waitzia suaveolens
Melaleuca radula
Stypandra sp.
Glischrocaryon aureum
Dampiera lavandulacea
Hakea ednieana
Stylidium calcaratum

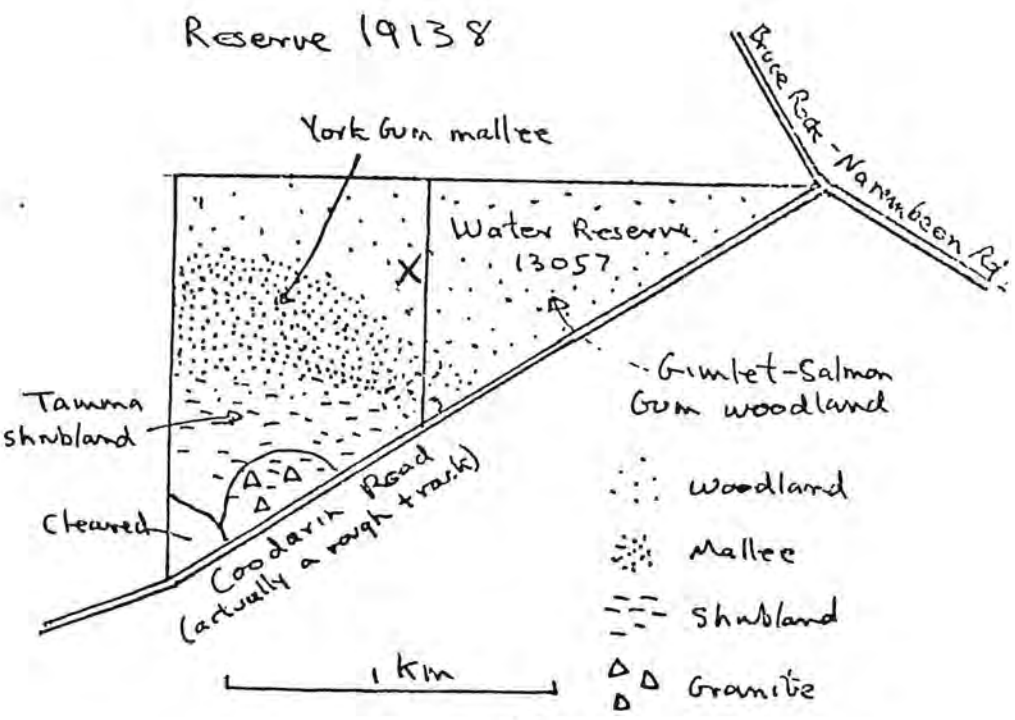
Reserve Clackline
Species at Sample Site 06

Hemigenia dielsii
Lasthenia grandiflora
Boronia sp.
Jacksonia alata
Stylidium uniflorum
Hakea incrassata
Verticordia huegelii
Stylidium leptophyllum
Lodoma hypocrateriformis
Pimelia imbricata
Acacia celastrifolia
Lomandra sonderi
Hakea bifissidiana
Pedrosfile serrata
Patrolema efasciatis

Reserve name and/or number	19138
Local Authority	Bruce Rock
Map	Litho 4/80
Area (ha)	81
Nearest named place	11 kms SE of Bruce Rock
Sample Site	01
Coordinates	31°57", 118°12"
Access	See attached map
Dominant Vegetation	York Gum Mallee
Nos of Species	28
Vegetation Details	Attached
Physical Features	Shallow sandy loam below granite
Last Fire	more than 20 years
Protected from Livestock	Yes

Sampling Methods	20m x 20m Quadrat Species f/a, Biennial cover by line intercept. Photo.
Date Sampled	October 1984
Next Sampling	October 1987


BRUCE ROCK
Bruce Rock
Bruce Rock Nature Reserve
Government Dam
Railway Water Supply
Rifle Range
Drain
Common
Effluent Disposal
Abattoirs
Gravel
Camping
Closed Road
Pipeline
"Alawa"
Tank No. 6
Coodarin
Bungulluping Well
"Rock Vale"
Estate
Rd No 113
Road No 6694
ROAD
BRUCE ROCK Road
CURRIE
NAREMBEEN
NEGRIS
SEDGWICK
WOGARL
BUTLER
EAST
WEST
BEDELL
DEPOT
SOUTH
CEMETERY
COODARIN
LAWRIE
CUMMINING
HARSHBEEN
17543
64.7497 ha
16260
247.5513 ha
17544
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279.2002 ha
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329.1536 ha
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323.3382 ha


Reserve 19138
Bruce Rock - Nammeen Rd.
York Gum mallee
Water Reserve
13057
Gimlet-Salmon
Gum woodland
Tammin
shrubland
Cleared
Coodarin (Road
(actually a rough track)
Woodland
Mallee
Shrubland
Granite
1 km



Reserve 19138

The view North West of the quadrat 01 along diagonal 3 to 1 (1M/10/8M).

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Bruce Rock
1938
QUADRAT COVER BY TRANSECT

NAME T. GOODSELL

49289/7/78-200P 03-L942

DATE	SHEET	OF
	20	48

CARD PUNCH PRINT Yes ( ) No ( ) VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
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3	C01	841 014	01	N	E9JLUY	2-2·4	P	·239	3·69	2·15	005	N-A	3
4													4
5	C01	841 014	01	N	E9JLUY	3-3·5	P	·239	3·69	2·15	005	N-A	5
6													6
7	C01	841 014	01	N	E9JLUY	3·5-6·25	P	·239	3·69	2·15	005	N-A	7
8													8
9	C01	841 014	01	N	E9JLUY	4·7-4·85	P	·119	2·461	1·69	005	N-A	9
10													10
11	C01	841 014	01	N	E9JLUY	5·15-6·25	P	·159	2·462	2·00	005	N-A	11
12													12
13	C01	841 014	01	N	E9JLUY	6·25-7·2	P	·159	3·69	2·71	005	N-A	13
14													14
15	C01	841 014	01	N	E9JLUY	7·06-7·7	P	·079	2·462	2·15	005	N-A	15
16													16
17	C01	841 014	01	N	E9JLUY	8·35-8·6	P	·199	4·923	3·07	005	N-A	17
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19	C01	841 014	01	N	E9JLUY	12·8-12·85	P	·159	3·072	2·46	005	N-A	19
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49289/7/75—200P DS—L942

DATE	SHEET 21	OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( )	No ( )

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Bruce Rock 19138
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
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4															4
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6															6
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8															8
9	C Ø 1	8 4	1	Ø 1 4	Ø 1	N	E 9 J L V Y	3 Ø · 8 5 - 3 4 · 3 5	P	· 4 7 8	5 · 5 4	4 · 9 2	Ø Ø 5	N - A	9
10															10
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12															12
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17	C Ø 1	8 4	1	Ø 1 4	Ø 1	N	E 9 J L V Y	3 6 · 4 2 - 3 7	P	· 1 5 9	4 · Ø Ø	3 · 3 8	Ø Ø 5	N - A	17
18															18
19	C Ø 1	8 4	1	Ø 1 4	Ø 1	N	E 9 J L V Y	3 7 - 3 8 · Ø 2	P	· 1 9 9	4 · 3 1	3 · 6 9	Ø Ø 5	N - A	19
20															20

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49269/7/76-200P 03-L042

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Slue of Bruce Rock
19138
QUADRAT COVER BY TRANSECT

NAME J. GOOD SELL

DATE	SHEET	OF
	22	48

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS 'Ø'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84	1	Ø14	Ø1	N	EQJLUY	38·Ø2-37·39	P	·199	4·61	4·ØØ	ØØ5	N-A	1
2															2
3	CØ1	84	1	Ø14	Ø1	N	EQJLUY	37·39-41·92	P	·319	4·61	4·ØØ	ØØ5	N-A	3
4															4
5	CØ1	84	1	Ø14	Ø1	N	V3QMNN	4Ø·35-4Ø·51	T	N--A	·128	ØØØ1	ØØ	FRT	5
6															6
7	CØ1	84	1	Ø14	Ø1	N	V3QMNN	43·Ø7-48·3	T	N--A	·128	ØØØ1	ØØ	FRT	7
8															8
9	CØ1	84	1	Ø14	Ø1	N		48·3-68·3	T	·3Ø7	·151	ØØØ1	ØØ	FRT	9
10															10
11	CØ1	84	1	Ø14	Ø1	N		73·77-76·44	T	N--A	·3Ø7	ØØØ1	ØØ	FRT	11
12															12
13	CØ1	84	1	Ø14	Ø1	N		72·59-73·64	P	·159	3·Ø7	1·84	ØØ5	N-A	13
14															14
15	CØ1	84	1	Ø14	Ø1	N		76·61-76·87	P	·159	3·Ø7	2·15	ØØ5	N-A	15
16															16
17	CØ1	84	1	Ø14	Ø1	N		8Ø·65-8Ø·8	P	·399	4·92	4·31	ØØ1	FRT	17
18															18
19	CØ1	84	1	Ø14	Ø1	N		8Ø·8-82·8	P	·478	4·92	4·31	ØØ1	FRT	19
20															20

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49259/7/78-200P 05-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Site of Bruce Rock 19138
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET	OF
	23	48

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84	1	01 14	01	N	EQJLUY	90.35-91.45	P	.319	5.54	4.6	001	N-A	1
2															2
3	C01	84	1	01 14	01	N	EQJS20	92.1-96.3	P	1.4	821.5	16.5	025	FRT	3
4															4
5	C01														5
6															6
7	C01														7
8															8
9	C01														9
10															10
11	C01														11
12															12
13	C01														13
14															14
15	C01														15
16															16
17	C01														17
18															18
19	C01														19
20															20
	1 1 2 3	4 5	6	7 8 9	10 1	1 3	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

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Reserve 19138
Species list at
Sample Site 01

Gramineae

Avena fatua
Bromus rubens
Danthonia caespitosa
Echarda longiflora
Lolium perenne
Pentaschistis airoides
Stipa elegantissima
Stipa trichophylla
Vulpia bromoides
Vulpia myuros

Chenopodiaceae

Enchylaena tomentosa
Maireana georgii
Rhagodia spinescens

Amaranthaceae

Ptilotus humilis

Rhizoaceae

Mesembryanthemum
nodiflorum

Caryophyllaceae

Spergula arvensis

Cruciferae

Raphanis raphanistrum

Mimosaceae

Acacia acuminata
Acacia oxinacea
Acacia mearnsii

Caesalpinaceae

Labichea lanceolata
Zemplectonia pulcata

Myrtaceae

Eucalyptus loxophleba
Eucalyptus salmonophloa

Umbelliferae

Hydrocotyle cyanopetala

Asteraceae

Argyanthus strictus
Olearia muelleri

Reserve name and/or number	Camel Peaks 2316 h
Local Authority	Kondeiein
Map	345/80
Area	
Nearest Named Place	17 kms NWN of Hyden
Sample Site	01
Coordinates	32°21" 118°50"
Recess	See attached map
Dominant Vegetation	York Gum Mallee
Nos of Species	36
Vegetation Details	Attached
Physical Features	Sandy loam at the foot of a granite
Last Fire	more than 30 years.
Proceeded from Fire Lookout	Yes.

Sampling Methods	20 m x 20 m Quadrat Species f/a, Perennial Cover, Lifeline intercept. Photo.
Date sampled	October 1984
Next Sampling	October 1987

101

670

675

347
16000
2536
1903.8664 ha

347
16844
2651
1488.9852 ha

HYDEN NORTH ROAD No. 12024

CG
2244
30.1836 ha

347
16838
2652
591.0712 ha

CG
2108
194.2516 ha

347
10605
2258
64.6890 ha

Road No. 6413

EAST

CG
2076
714.6846 ha

CG
1454
818.9042

CAMEL PEAKS

347
7356
2127
886.0542 ha

A 23164
2128
201.2299 ha

CG
1031
"Camel Peaks"
670.3542 ha

Drain

CAMEL PEAKS ROAD EAST

CAMEL PEAKS ROAD WEST

347
16175
2491
343.8791 ha

Scrivener Rock

HYDEN ROAD NORTH

CG
1032
448.0123 ha

CG
2334
204.3004 ha

BURMA ROAD

CG
1094
64.7497 ha

CG
1033
456.5866 ha

Hyden North

CG
1096
61.6311 ha

347
9007
2178
649.9476 ha

CG
2195
382.8807 ha

CG
2101
288.9860 ha

CG
1034
581.4953 ha

WORLAND

CG
593
616.4020 ha

"Glenorie"

CG
1037
685.4060 ha

WORLAND Road No. 13604

DYOR ROAD

CG
418
404.3846 ha

347
6787
2071
363.8352 ha

CG
768
487.0391 ha

CG
419
65.1075 ha

SHIRE

Closed Road

CG
420
64.7497 ha

CG
308
404.6452 ha

CG
307
403.0821 ha

NORTH ROAD No. 14907

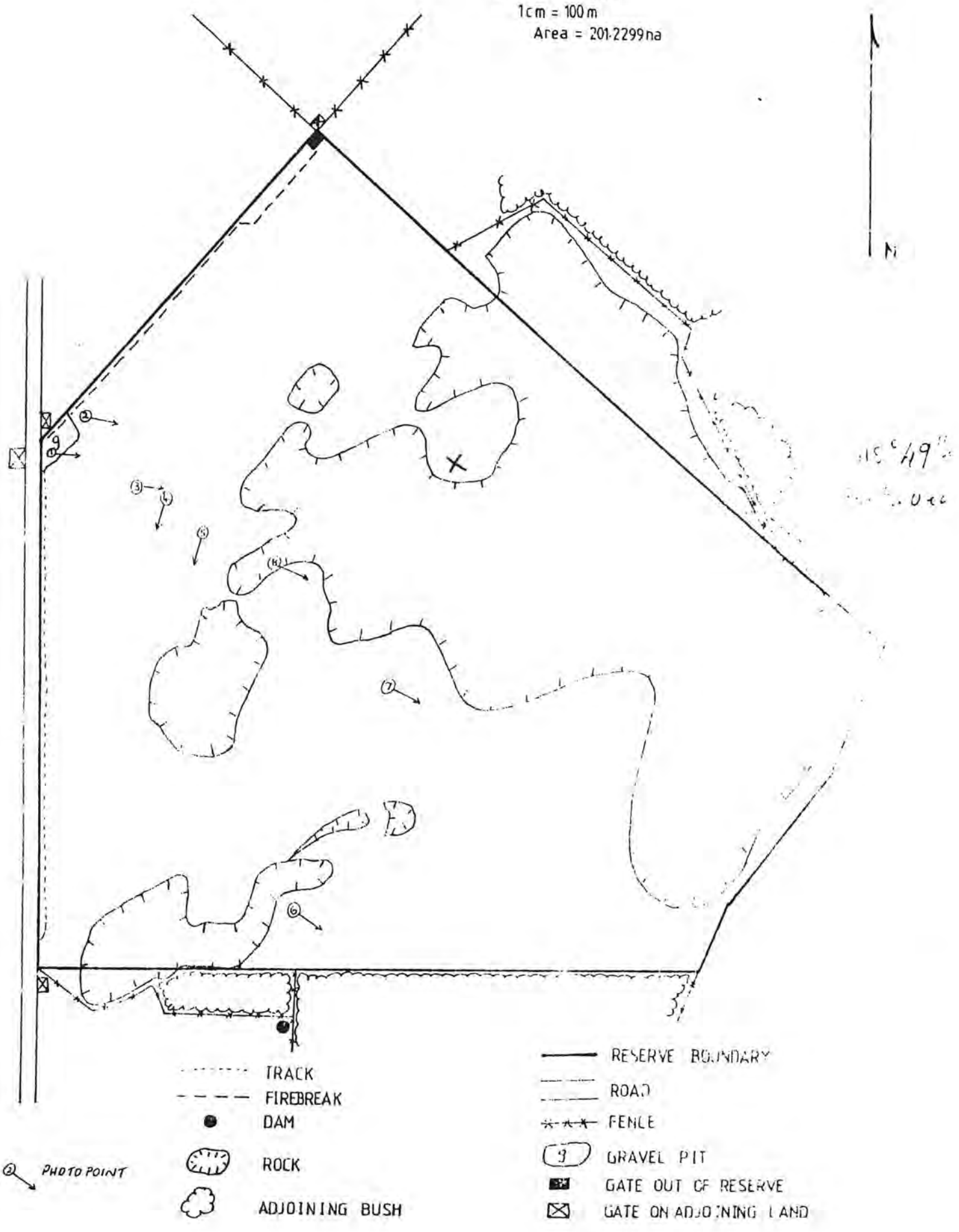
A 23267
2046

102

RESERVE ↑ 23164

CAMEL PEAKS

SCALE 1 10,000
1cm = 100m
Area = 201.2299ha





Reserve 23164

The view North West of the quadrat 01 along diagonal 3 to 1 (8/10/84)

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER CAMEL PEAKS, KONDININ SHIRE # 23164
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

49259/7/78-200P 03-L942

DATE	SHEET 1	OF 19
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( )	No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS '2'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT (Metres)	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84 1 00	01	N	D42RH0	0--056	CH	N--A	300	00	100	N-A	1
2													2
3	C01	84 1 00	01	N	D42RH0	1·65-1·90	CH	N--A	300	00	100	N-A	3
4													4
5	C01	84 1 00	01	N	E9JLUY	·05-1·05	P	·319	2·46	·307	110	FRT	5
6													6
7	C01	84 1 00	01	N	D42RH0	2·86-3·06	CH	N--A	·230	0000	010	N-A	7
8													8
9	C01	84 1 00	01	N	D42RH0	3·5-4	CH	N--A	·230	0000	010	N-A	9
10													10
11	C01	84 1 00	01	N	D42RH0	18·5-19	CH	N--A	·230	0000	010	N-A	11
12													12
13	C01	84 1 00	01	N	E9JLUY	·5-1·05	P	N--A	5·54	·307	110	FLT	13
14													14
15	C01	84 1 00	01	N	E9JLUY	2·2-3·2	P	N--A	5·54	·307	110	FLT	15
16													16
17	C01	84 1 00	01	N	E9JLUY	4·6-4·7	P	·319	5·54	·307	100	FLT	17
18													18
19	C01	84 1 00	01	N	E9JLUY	6·7-6·8	P	·319	5·54	·307	100	FLT	19
20													20
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

X 4707

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80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER CAMEL PEAKS, KONDININ SHIRE, 23164
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

49269/7/78-200PDS-L942

DATE | SHEET 2 OF 4 | CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84 1 0 1 8	01	N	EQJLUY	10·2-10·3	P	·319	5·54	·3Ø1	100	F.L.T	1
2													2
3	C01	84 1 0 1 8	01	N	EQJLUY	11·9-12	P	·159	4·61	·3Ø1	100	F.L.T	3
4													4
5	C01	84 1 0 0 8	01	N	EQJLUY	12·1-13·1	P	·398	6·77	·3Ø1	100	F.L.T	5
6													6
7	C01	84 1 0 0 8	01	N	EQJLUY	14·4-14·9	P	·319	6·15	·3Ø1	100	F.L.T	7
8													8
9	C01	84 1 0 0 8	01	N	EQJLUY	19·4-20·1	P	·478	6·77	·3Ø1	100	F.L.T	9
10													10
11	C01	84 1 0 0 8	01	N	AØQA6T	24·1-25·1	P	M--S	3·Ø7	·3Ø1	100	N-A	11
12													12
13	C01	84 1 0 0 8	01	N	D42RHØ	24·62-25·1	CH	N--A	·384	ØØØØ7Ø		N-A	13
14													14
15	C01	84 1 0 0 8	01	N	D42RHØ	26·9-27·1	CH	N--A	·384	ØØØØ7Ø		N-A	15
16													16
17	C01	84 1 0 0 8	01	N	EQJLUY	31·1-31·3	P	N--A	3·41	2·15	Ø%	F.L.I	17
18													18
19	C01	84 1 0 0 8	01	N	EQJLUY	32·1-34·8	P	·478	6·765	·84Ø25		F.L.T	19
20													20

105

49269/7/75-200P DS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Camel Peaks, Rondinin Sheep 23164
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET 3	OF 18
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( )	No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS 'Ø'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84 10 08	Ø1	N	EGJLUY	32.3-33.3	P	.239	4.61	3.07	Ø25	FLT	1
2													2
3	CØ1	84 10 08	Ø1	N	EGJLUY	37.3-37.1	P	.319	4.61	3.07	Ø25	FLT	3
4													4
5	CØ1	84 10 08	Ø1	N	EGJLUY	39.3-39.Ø5	P	.159	3.07	2.46	Ø25	N-A	5
6													6
7	CØ1	84 1Ø Ø8	Ø1	N	D42RHØ	36.5-36.54	CH	N--A	.154	ØØØØ5Ø		N-A	7
8													8
9	CØ1	84 1Ø Ø8	Ø1	N	S1LSHØ	37.65-37.7	P	N--A	.154	ØØØØ5		N-A	9
10													10
11	CØ1	84 1Ø Ø8	Ø1	N	D42RHØ	38.11-38.25	CH	N--A	.231	ØØØØ5Ø		N-A	11
12													12
13	CØ1	84 1Ø Ø8	Ø1	N	D42RHØ	37.72-37.82	CH	N--A	.154	ØØØØ5		N-A	13
14													14
15	CØ1	84 1Ø Ø8	Ø1	N	D42RHØ	39.72-4Ø.4	CH	N--A	.231	ØØØØ5		N-A	15
16													16
17	CØ1	84 1Ø Ø8	Ø1	N	S1LSHØ	4Ø.45-4Ø.83	P	N--A	.462	ØØØØ9		N-A	17
18													18
19	CØ1	84 1Ø Ø8	Ø1	N	D42RHØ	41.2-41.8	CH	N--A	.307	ØØØØ5		N-A	19
20													20

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49259/7/75-200P D3-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Camel Peaks
Kendinin Sheet, 23162
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET	OF
	4	18

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS 'Ø'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84 1 00 8	Ø1	N	C36RHØ	45·1-45·9	P 4 STEMS	N--A	1·69	·61	5Ø	FRT	1
2													2
3	CØ1	84 1 00 8	Ø1	N	D42RHØ	48·3-48·7	CH	N--A	·3Ø7	ØØ	ØØ	FLO	3
4													4
5	CØ1	84 1 00 8	Ø1	N	D42RHØ	49·9-5Ø·1	CH	N--A	·3Ø7	ØØ	ØØ	FLO	5
6													6
7	CØ1	84 1 00 8	Ø1	N	EQJLUY	5Ø·1-5Ø·2	P	·319	5·54	4·61	1Ø	FLT	7
8													8
9	CØ1	84 1 00 8	Ø1	N	D42RHØ	44·2-45·2	CH	N--A	·3Ø7	ØØ	ØØ	FLO	9
10													10
11	CØ1	84 1 00 8	Ø1	N	D42RHØ	56·2-56·7	CH	N--A	·3Ø7	ØØ	ØØ	FLO	11
12													12
13	CØ1	84 1 00 8	Ø1	N	AØQA6T	57·2-57·4	P	N--A	·923	·9Ø	ØØ	N-A	13
14													14
15	CØ1	84 1 00 8	Ø1	N	D42RHØ	58·5-58·8	CH	N--A	·154	00	00	FLO	15
16													16
17	CØ1	84 1 00 8	Ø1	N	EQJLUY	59·9-6Ø·Ø54	P	·478	6·77	4·92	00	FLT	17
18													18
19	CØ1	84 1 00 8	Ø1	N	AØQA6T	61·3-61·9	P	N--A	1·23	·923	ØØ	N-A	19
20													20

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49269/7/76-200P DS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Camel Peaks, Kondinin Shire, 23162
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE | SHEET 5 OF 18

CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84 1 0008	01	N	EQJLVY	62-63	P	.319	5.54	5.23	025	F.L.T	1
2													2
3	C01	84 1 0008	01	N	EQJLVY	63.45-63.65	P	.478	6.15	5.23	025	F.L.T	3
4													4
5	C01	84 1 0008	01	N	AQQA6T	67.1-67.9	P	N--A	2.15	1.51	001	N-A	5
6													6
7	C01	84 1 0008	01	N	EQJLVY	70-70.154	P	.478	6.77	6.46	100	F.L.T	7
8													8
9	C01	84 1 0008	01	N	EQJLVY	72-72.154	P	.478	6.77	6.15	100	F.L.T	9
10													10
11	C01	84 1 0008	01	N	EQJLVY	76.2-76.354	P	.478	5.84	5.54	100	F.L.T	11
12													12
13	C01	84 1 0008	01	N	S1LSHØ	77.1-77.7	P	N--A	4.61	0000	020	N-A	13
14													14
15	C01	84 1 0008	01	N	EQJLVY	78.8-78.85	P	.050	3.69	3.07	005	F.L.T	15
16													16
17	C01	84 1 0008	01	N	R2APHØ	79.1-79.15	CH	N--A	.614	0000	005	FRT	17
18													18
19	C01	84 1 0008	01	N	EQJLVY	88.2-88.7	P	N--A	1.54	0000	005	N-A	19
20													20

801

49269/7/78-200P D3-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Camel Peaks, Koudinin Hill, 23162
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET	OF
	6	18

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS 'Ø'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84	1	00 8	Ø1	N	D4 2RHØ	88·4-88·8	CH	N--A	·3Ø7	ØØØ	ØØ7	F L C	1
2															2
3	CØ1	84	1	00 8	Ø1	N	EQ ILLY	88·9-89·1	P	N--A	4·61	1·31	ØØ5	F L T	3
4															4
5	CØ1	84	1	00 8	Ø1	N	D4 2RHØ	9Ø·9-91·1	CH	N--A	·231	ØØØ	Ø09	N-A	5
6															6
7	CØ1	84	1	00 8	Ø1	N	D4 2RHØ	92·8-93·2	CH	N--A	·231	ØØØ	Ø07	N-A	7
8															8
9	CØ1	84	1	00 8	Ø1	N	D4 2RHØ	94·5-94·7	CH	N--A	·231	ØØØ	Ø07	N-A	9
10															10
11	CØ1	84	1	00 8	Ø1	N	EQ ILLY	96·5-96·9	P	·478	4·61	3·69	ØØ5	F L T	11
12															12
13	CØ1	84	1	00 8	Ø1	N	ANNUAL GROUND COVER		T 1% COVER	N--A	·3ØØ	ØØØ	N-A	F L T	13
14															14
15	CØ1									ISVD	125				15
16								OPEN	TREE MALLEE	Mean	5.3	Cover	62%		16
17	CØ1									Var	1.52				17
18										RelVI	132.87				18
19	CØ1														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

Reserve 23164
Species list at
Sample site 01

Polypodiaceae
Cheilanthes tenuifolia

Gramineae
Bromus rubens
Danthonia caespitosa
Neurachne alopecuroides
Stipa trichophylla
Vulpia myuros

Dasypogonaceae
Lomandra effusa

Dianellaceae
Dianella revoluta

Anthericaceae
Borya nitida
Chamaescilla corymbosa

Casuarinaceae
Allocasuarina campestris

Proteaceae
Hakea recurva

Santalaceae

Santalum spicatum

Chenopodiaceae

Rhagodia preissii

Rosaceae

Rosea subhirtella

Mimosaceae

Acacia acuminata

Stackhousiaceae

Stackhousia monogyna

Myrtaceae

Eucalyptus loxophleba
Calothamnus quadrifidus
Melaleuca uncinata

Haloragaceae

Glischrocaryon aureum

Umbelliferae

Trachymene ornata

Primulaceae

Anagallis arvensis

Scrophulariaceae

Parentucellia latifolia

Stylidiaceae

Stylidium calcaratum

Asteraceae

Arctotheca calendula
Brachycome bellidioides
Cleonia rotata
Podolepis capillaris
Podolepis lessonii
Podotheca gnaphaloides
Sonchus oleraceus
Vittadinia australasica
Waitzia acuminata

Nature Reserve name and/or number	A 167/4
Local Authority	Corrigin
Map Litho	377/80
Area (ha)	27
Nearest named place	19 kms SSE of Corrigin
Sample site	01
Coordinates	32°25", 118°0"
Access	See Attached Map
Dominant Vegetation	York Gum Dense Forest
No species	41
Vegetation Details	Attached
Physical features	Pink sandy clay loam below granite
Last fire	more than 30 years
Protected from livestock	Yes
Sampling methods	20 m x 20 m quadrat species f/a, Perennial Cover by line intercept Photo
Date sampled	October 1984
Next sampling	October 1987

SHIRE

"Cheviot Hills"

Gnerkadilling Spring

Gnarlarking Spring

Gorge Rock

Gorge Rock

"Geodlin"

"Granji"

"Barclay"

Wedgengully

SHIRE OF KULIN

FULWOOD ROAD

GNERKADILLING ROAD

CROSSLAND ROAD

ROGERS ROAD

REED ROAD

KONDININ ROAD

CORRIGIN ROAD

ARTLETT ROAD

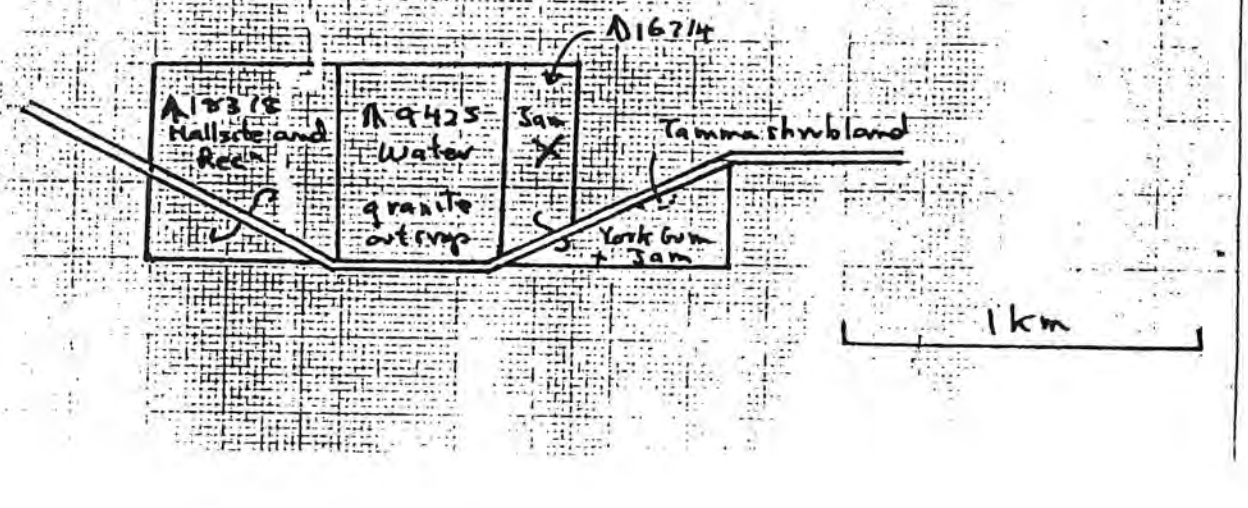
BULLARING GORGE ROCK ROAD

KULIN CORRIGIN No. 1 Road

590000mE

595000mN

A 16714


A16714
A18378
Hallsite and Rock
A9425
Water
granite outcrop
Jam
Tamma shrubland
York Gum + Jam
1km



Reserve 16714

Consign

Reverse of the quadrat 01 looking east (16/10/84).

49289/7/75—200P 03—L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Irrigin
16714
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE | SHEET 24 OF 118

CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
1	C01	84	1	015	01	N	ANNUAL GROUND COVER		T 2% COVER	N--A	.500	00	00	N-A	FLT	1
2																2
3	C01	84	1	015	01	N	AQQA6T	89-1.92	P	.797	9.67	6.41	001	N-A		3
4																4
5	C01	84	1	015	01	N	EQJLUY	25.24-25.44	P	1.19	.384	.154	001	N-A		5
6																6
7	C01	84	1	015	01	N	AQQA6T	26.02-27.07	P	.718	6.15	4.92	005	N-A		7
8																8
9	C01	84	1	015	01	N	EQJLUY	27.09-28.52	P	.395	6.54	4.92	001	N-A		9
10																10
11	C01	84	1	015	01	N	EQJLUY	49.18-49.48	P	.079	2.15	1.38	001	N-A		11
12																12
13	C01	84	1	015	01	N	AQQA6T	58.08-58.38	P	.797	7.96	4.92	001	N-A		13
14																14
15	C01	84	1	015	01	N	EQJLUY	66.58-66.83	P	.957	9.44	4.92	001	N-A		15
16	C01	84	1	015	01	N	EQJLUY	69.35-70.16	P	.957	9.44	4.92	005	N-A		16
17	C01	84	1	015	01	N	AQQA6T	81.4-90	P	.718	6.61	4.62	005	N-A		17
18																18
19	C01	84	1	015	01	N	AQQA6T	95.55-96.16	P	.957	10.18	01	001	N-A		19
20																20

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Reserve 16714
Species list #1
Sample Site 01

Polypodiaceae

Cheilanthes tenuifolia

Gramineae

Bita coryophylla
Amphipogon strictus
Avena fatua
Briza maxima
Danthonia caespitosa
Neurachne alopecuroides
Pentaschistis airoides
Stipa trichophylla
Vulpia myuros

Cyperaceae

Lepidosperma gracile
Lepidosperma costale

Dianellaceae

Dianella revoluta
Stypandra imbricata

Anthericaceae

Borya nitida
Thysanotus tenellus

Caryophyllaceae
Allocasuarina huegeliana
Amaranthaceae
Ptilotus polystachyus
Caryophyllaceae
Silene gallica
Cruciferae
Raphanis raphanistrum
Crassulaceae
Crassula colorata
Stackhousiaceae
Stackhausia monogyna
Myrtaceae
Eucalyptus loxophleba
Haloragaceae
Glischrocaryon aureum
Umbelliferae
Trachymene cyanopetala

Primulaceae

Anagallis arvensis

Goodeniaceae

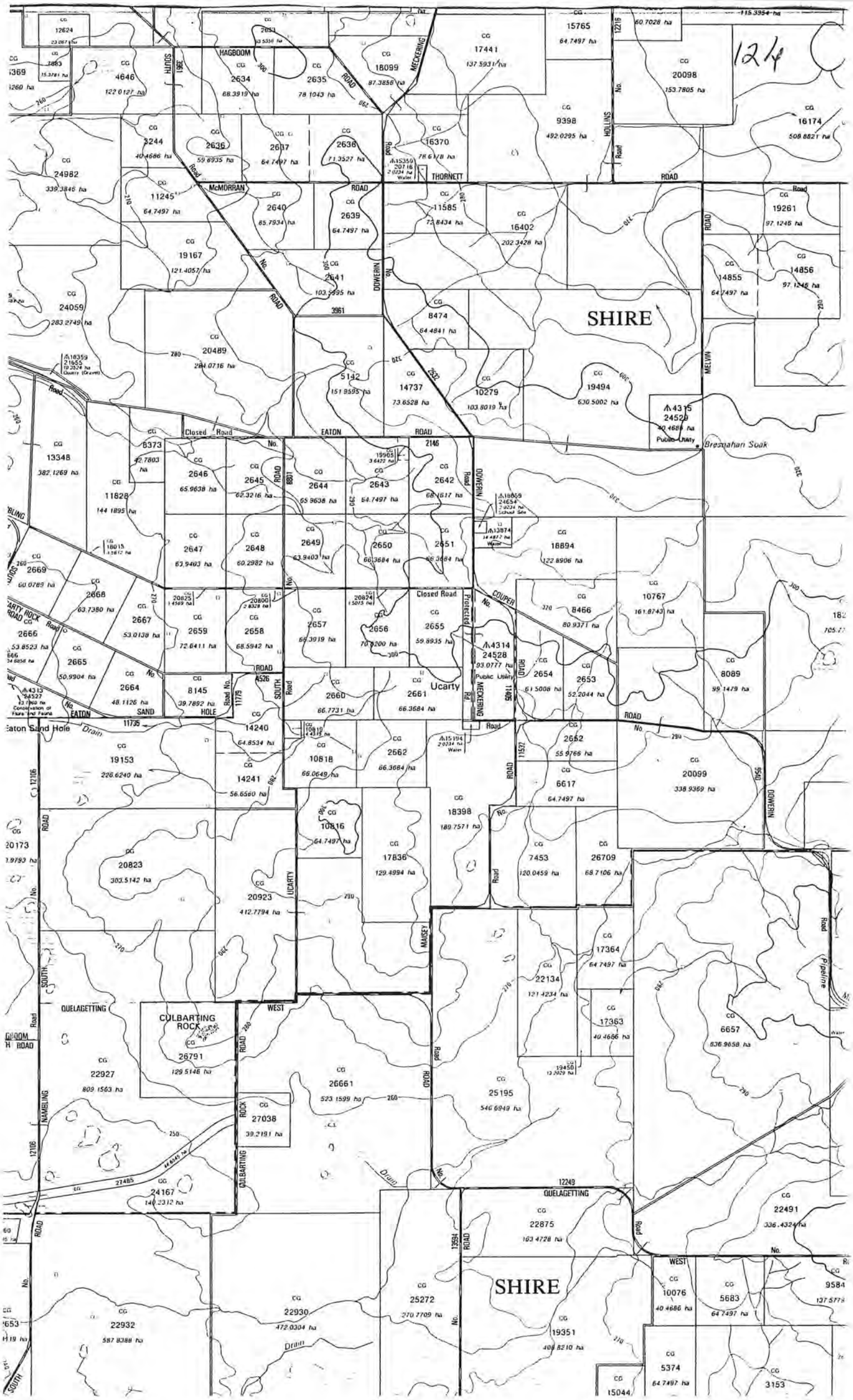
Brunonia australis
Dampiera lavandulacea
Velleia cycnopotamica

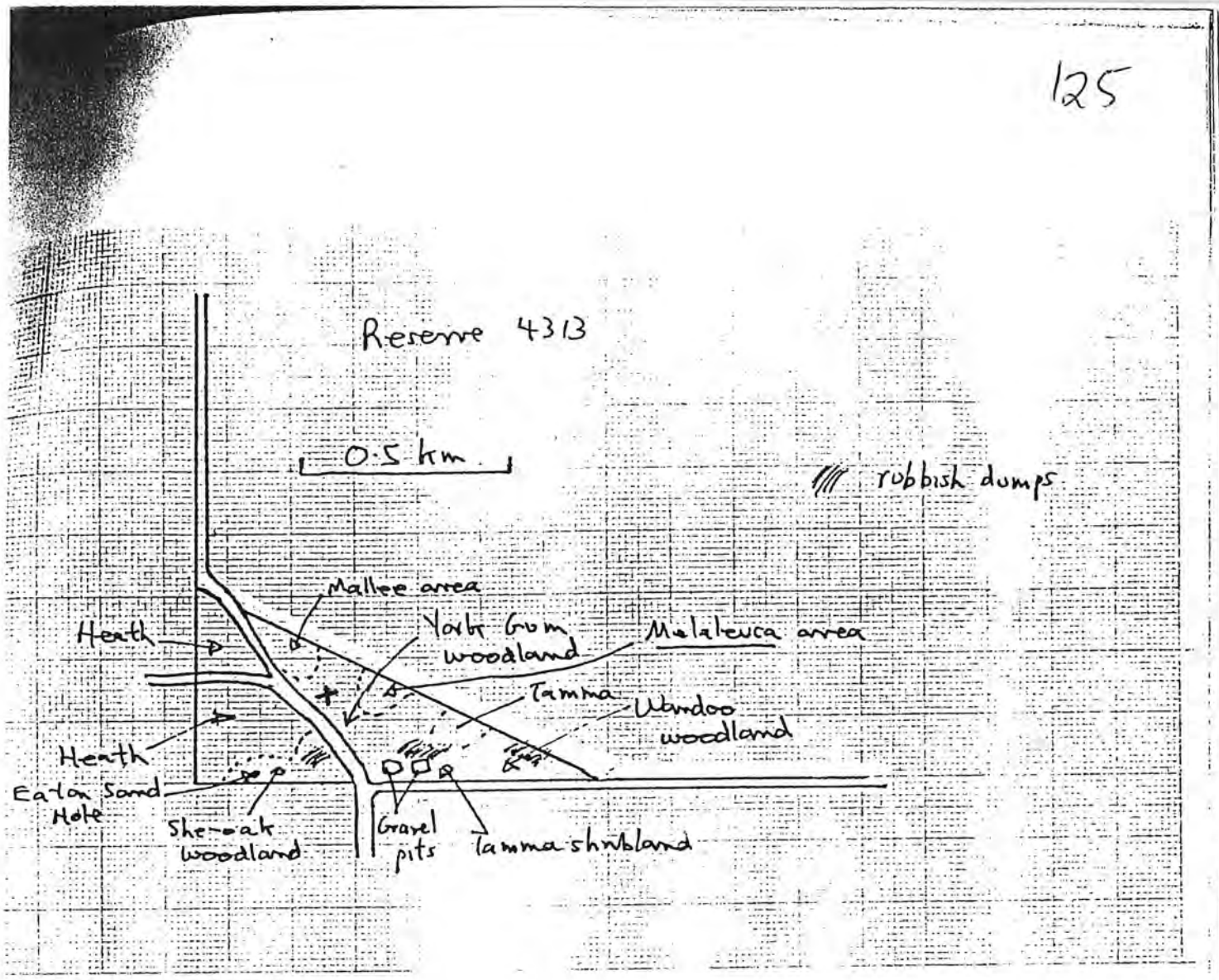
Asteraceae

Arctotheca calendula
Brachycome iberidifolia
Felicia mangleseii
Hypochoeris glabra
Hypochoeris radicata
Lactuca serriola
Ursinia anthemoides
Waitzia acuminata

Nature Reserve name and lot number	16313
Local Authority	Boyanup
Map	Litho 20/80
Area (ha)	44
Nearest named Place	16.7 kms SSW of Boyanup
Sample Site	01
Coordinates	31° 22", 117° 01"
Access	See attached map
Dominant Vegetation	York Gum Woodland
Nos of Species	27
Vegetation Details	Attached
Physical Features	Sandy loams
Last Fire	more than 30 years
Proceeded from Fire Lookout	Yes

Sampling Methods	20 m x 20 m Quadrat Species I/d, Perennial Cover by line intercept. Photo.
Date sampled	October 1984
Next sampling	October 1987


124
SHIRE
SHIRE
HAGBOOM ROAD
SOUTH
MECKERING
ROAD
HOLLINS
Road
McMORRAN
ROAD
THORNETT
ROAD
DOWERIN
No.
ROAD
EATON
ROAD
Closed Road
Bremahan Soak
MELVIN
Road
Closed Road
COUPER
No.
Protected
Road
Eaton Sand Hole
Drain
EATON
SAND
HOLE
SOUTH
Road
ROAD
Ucarty
MAISEY
LUCARTY
ROAD
QUELAGETTING
WEST
ROAD
CULBARTING
ROCK
ROAD
NAMBLING
ROAD
CULBARTING
ROCK
Road
Drain
Drain
Pipeline
QUELAGETTING
Road
WEST
No.
ROAD
DOWERIN
No.
Road
No.
ROAD
No.
ROAD
No.
ROAD


Reserve 4313
0·5 km
rubbish dumps
Mallee area
Yate Gum woodland
Melaleuca area
Heath
Tamma
Ubindoo woodland
Heath
Eaton Sand Hole
She-oak woodland
Gravel pits
Tamma-shrubland



Reserve 4313

The view of the quadrat looking east. 26/10/1984

49280/7/75-200P 05-L842

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Powelton 4313
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE

SHEET 27 OF 118

CARD PUNCH PRINT Yes ( ) No ( )

VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	E 9 I L V Y	1·65-1·7	P	·239	3·Ø7	2·15	Ø Ø 5	F R T	1
2													2
3	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	E 9 I L V Y	3·85-7·64	P	·2395	·84	3·Ø1	Ø Ø 5	F R T	3
4													4
5	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	E 9 I L V Y	6·38-6·56	P	·45Ø	2·76	1·54	Ø Ø 5	F R T	5
6													6
7	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	E 9 I L V Y	17·2-17·34	P	·45Ø	1Ø·Ø	3·71	Ø Ø 5	F R T	7
8													8
9	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	E 9 I L V Y	21·68-27·73	P	·Ø79	2·15	·71	2·3	Ø Ø 5	F R T	9
10													10
11	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	E 9 I L V Y	27·7-28·71	P	·42Ø	9·38	3·74	Ø Ø 5	F R T	11
12													12
13	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	E 9 I L V Y	32·95-35·15	P	·61Ø	9·78	5·5Ø	Ø Ø 5	F R T	13
14													14
15	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	E 9 I L V Y	35·2-36·12	P	·79Ø	1Ø·7	5·71	Ø Ø 5	F R T	15
16													16
17	C Ø 1												17
18													18
19	C Ø 1												19
20													20
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

27

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Powerlin 4313
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

49289/7/78—200P DS—L942

DATE | SHEET 28 OF 48

CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	841 02 01	01	N	E9JLUY	40.45-44.05	P	.740	14.3	11.5	005	FRT	1
2													2
3	C01	841 02 01	01	N	E9JLUY	46.6-48.3	P	.715	14.3	7.5	005	FRT	3
4													4
5	C01	841 02 01	01	N	E9JLUY	52.4-52.5	P	.615	14.3	11.9	001	FRT	5
6													6
7	C01	841 02 01	01	N	E9JLUY	50.76-51.75	P	.280	5.234	4.31	001	N-A	7
8													8
9	C01	841 02 01	01	N	S1LAHØ	51.33-51.6	P	N--A	1.23	.30	005	N-A	9
10													10
11	C01	841 02 01	01	N	S1LAHØ	62.6-62.66	P	N--A	.231	000	001	N-A	11
12													12
13	C01	841 02 01	01	N	S1LAHØ	61.6-64.9	P	N--A	.615	000	001	N-A	13
14													14
15	C01	841 02 01	01	N	E9JLUY	69.01-69.11	P	.398	5.84	4.92	005	FRT	15
16													16
17	C01	841 02 01	01	N	S1LAHØ	67.5-67.6	P	N--A	1.84	.154	005	N-A	17
18													18
19	C01												19
20													20

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40289/7/76-200P 03-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Dowerin 6313
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET 29	OF 28
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( )	No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS 'Ø'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C Ø 1	8 4 1 Ø 2 7	Ø 1	N	S 1 L A H Ø	7 3 · 5 - 7 4 · Ø 5	P	N - - A	1 · 6 9	· 9 2 3	Ø Ø 5	1 - A	1
2													2
3	C Ø 1	8 4 1 Ø 2 7	1	N	E 9 J L V Y	7 2 · 8 5 - 7 7 · Ø 5	P	· 9 5 7	1 6 · 3 5 ·	5 3	Ø Ø 5	F R T	3
4													4
5	C Ø 1	8 4 1 Ø 2 7	1	N	E 9 J L V Y	7 8 · 4 - 7 8 · 7	P	· 9 5 7	1 1 · 4	6 · 2 4	Ø Ø 5	F R T	5
6													6
7	C Ø 1	8 4 1 Ø 2 7	1	N	A 1 2 P H Ø	8 Ø · 2 - 8 1 · 1 3	P	N - - A	· 3 Ø 7	Ø Ø Ø	Ø 1 Ø Ø	N - A	7
8													8
9	C Ø 1	8 4 1 Ø 2 7	1	N	S 1 L A H Ø	8 1 · 6 5 - 8 1 · 8 5	P	N - - A	1 · 2 3	· 1 5 1	Ø Ø 1	N - A	9
10													10
11	C Ø 1	8 4 1 Ø 2 7	1	N	E 9 J L V Y	8 2 · Ø 5 - 8 2 · 3 5	P	· 9 5 7	9 · 9 7	5 · 5 8	Ø Ø 1	F R T	11
12													12
13	C Ø 1	8 4 1 Ø 2 7	1	N	E 9 J L V Y	8 4 · 8 - 8 5 · 8	P	· 3 9 8	5 · 5 4	3 · 6 9	Ø Ø 1	F R T	13
14													14
15	C Ø 1	8 4 1 Ø 2 7	1	N	E 9 J L V Y	8 7 · 6 5 - 9 Ø · 8 2	P	· 9 5 7	1 3 · 1 6 ·	9 7	Ø Ø 5	F R T	15
16													16
17	C Ø 1	8 4 1 Ø 2 7	1	N	E 9 J L V Y	9 2 · Ø 5 - 9 4 · 2 5	P	· 7 9 7	3 · Ø 7	1 · 2 3	Ø Ø 5	F R T	17
18													18
19	C Ø 1												19
20													20
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

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Reveree 4313
Species of
Sample Site 01

Gramineae

Briza fabya
Bromus rubens
Neurachne alopecuroides
Stipa elegantissima
Stipa dentifolia

Restionaceae

Ecdeicolea monostachya
Lepocarya pubescens

Dasypogonaceae

Acanthocarpus preissii
Lomandra effusa

Dianellaceae

Dianella revoluta

Anthericaceae

Borya nitida.

Casuarinaceae

Allocasuarina huegeliana

Santalaceae

Santalum acuminatum

Chenopodiaceae

Enchylaena tomentosa

Aizoaceae

Carpobrotus aequilaterale

Cruciferae

Raphanis raphanistrum

Pittosporaceae

Pittosporum phylliraeoides

Rosaceae

Stylobasium australe

Mimosaceae

Acacia acuminata

Polygalaceae

Comesperma volubile

Stereuliaceae

GUICHENOTIA macrantha

Myrtaceae

Eucalyptus loxophleba

Goodeniaceae

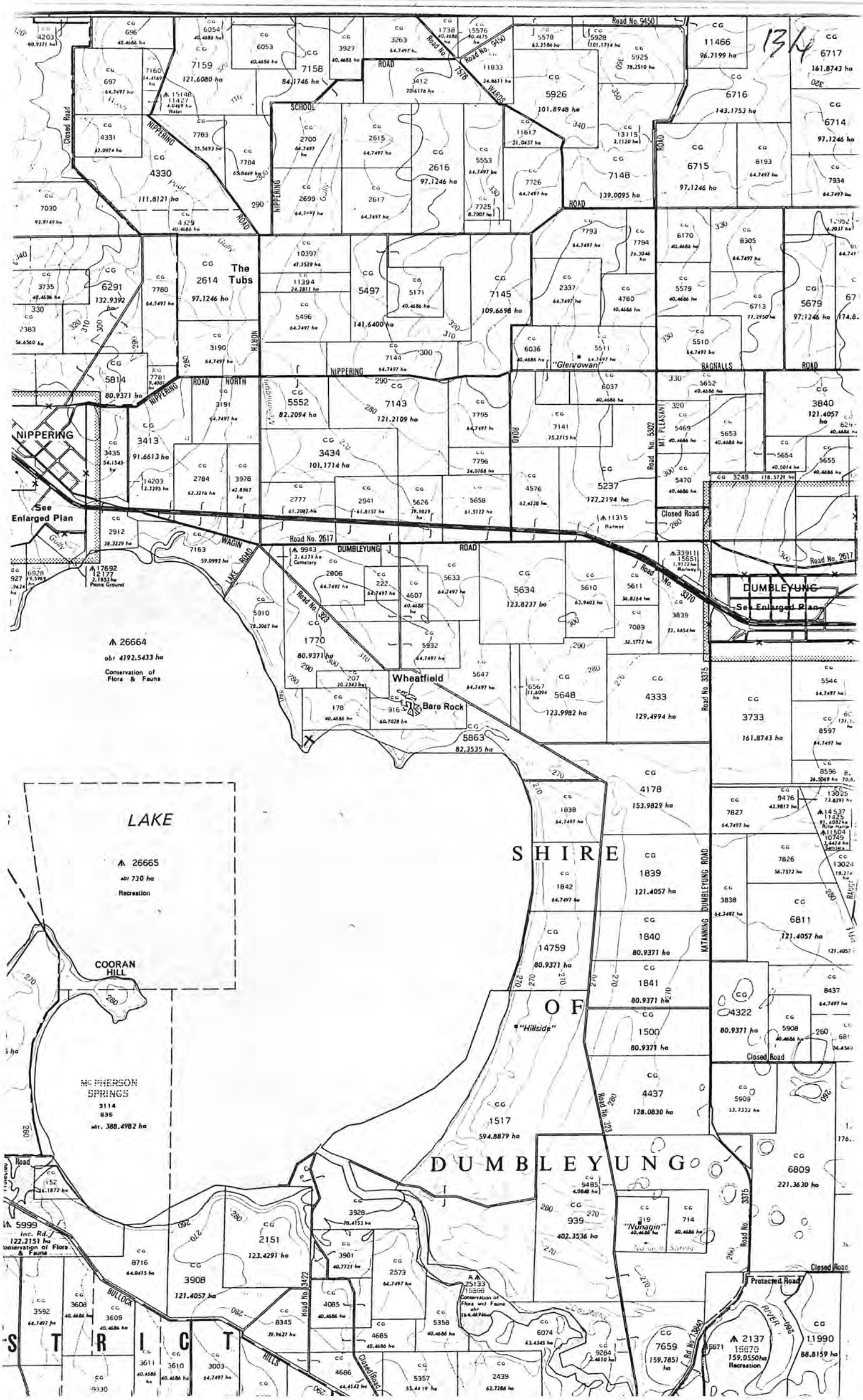
Dampiera lavandulacea
Dampiera preissii

Asteraceae

Podotheca gnaphaloides
Ursinia anthemoides
Waitzia acuminata

Reserve name and/or number	Pembleyung
Local Authority	Pembleyung
Map	Map 1:250,000 SI 50-7
Area	Small promontory of a few ha jutting into the lake
Nearest named Place	1.6 kms SW of Pembleyung
Sample Site	01
Coordinates	33° 29", 117° 41"
Recess	See attached map
Dominant Vegetation	Jarrah Green Sam Woodland
Nos of Species	17
Vegetation Details	Attached
Physical Features	Red loam over Granite at Bottom of Slope
Last Fire	more than 20 years
Protected from Livestock	Yes

Sampling Methods	20-m x 20-m Quadrat Species Ifq, perennial cover by line intercept. Photo.
Date Sampled	November 1984
Next Sampling	October 1987


Road No. 9450
Road No. 9450
ROAD
1516
WARDS
SCHOOL
Closed Road
NIPPERING
NIPPERING
ROAD
Pool
Gully
The Tubs
97.1246 ha
NORTH
ROAD
NORTH
NIPPERING
NIPPERING
Gully
"Glenrowan"
BAGNALLS
ROAD
MT. PLEASANT
Road No. 5302
NIPPERING
See Enlarged Plan
WAGIN
LAKE ROAD
Road No. 2617
DUMBLEYUNG
ROAD
Closed Road
Road No. 2617
DUMBLEYUNG
See Enlarged Plan
Road No. 3370
Road No. 3323
Wheatfield
Bare Rock
LAKE
26665
abt 730 ha
Recreation
COORAN HILL
Mc PHERSON SPRINGS
3114
836
abt. 388.4982 ha
SHIRE
OF
DUMBLEYUNG
"Hillside"
DUMBLEYUNG ROAD
KATANNING
Road No. 3375
Road No. 3323
Road No. 3422
"Numagin"
Closed Road
Protected Road
BULLOCK HILLS
RIVER
Closed Road
26664
abt 4192.5433 ha
Conservation of Flora & Fauna
Inc. Rd.
122.2151 ha
Conservation of Flora & Fauna
Conservation of Flora and Fauna
Recreation
Picnic Ground
Cemetery
Water
Railway
Railway
Rotor Hangs
Service
Tank
Tank
Tank



Doubleyung Reserve
Shrub of quadrat 01, looking east. 10/11/1984

49259/7/75-200PDS-L942

DATE	SHEET 34 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

80-COLUMN CARD PUNCH LAYOUT

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Dumbleyung - Lake Dumbleyung Reserve
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS "0"; LETTER "I" AS "I"; LETTER "Z" AS "Z".)

FIELD IDENTIFICATION

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72	73 74	75 76 77	78 79 80	
1	C01	84 11 10	01	N	ANNUAL GROUND COVER		T 100% COVE						1
2													2
3	C01	84 11 10	01	N	GRASS	6.15-14.05	P	2.21	10.5	3.4	2C	5	FRT 3
4													4
5	C01	84 11 10	01	N	ROCK	10.75-11.35	P	N--A	2.76	1.5	4	0	1C N-A 5
6													6
7	C01	84 11 10	01	N	HOWPKE	24.8-28.35	P	.797	3.69	1.8	4	0	1C N-A 7
8													8
9	C01	84 11 10	01	N	PEPHO	28.45-28.55	P	.785	3.38	.30	71	10	0 N-A 9
10													10
11	C01	84 11 10	01	N	ROCK	29.45-30.35	P	.786	3.69	2.1	5	0	5C N-A 11
12													12
13	C01	84 11 10	01	N	ROCK	35.85-39.35	P	.797	5.53	3.6	9	0	5C N-A 13
14													14
15	C01	84 11 10	01	N	ROCK	44.45-44.95	P	.398	3.69	3.0	7	0	5C N-A 15
16													16
17	C01	84 11 10	01	N	ROCK	48.3-50.45	P	.718	5.54	3.6	9	0	5C N-A 17
18													18
19	C01												19
20													20

126

49259/7/78-200PDS-L942

DATE	SHEET 35 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Isle of Pumbleyeung
Lake Pumbleyeung Reserve
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72	73 74	75 76 77	78 79 80	
1	C01	84 1 11	01	N	ANNUAL GROUND COVER		T 100% COVE	N--A	50	00	00	N-A	FLT	1
2														2
3	C01	84 1 11	01	N	FRUIT	6.15-14.05	P	2.21	10.5	3.4	20	05	FRT	3
4														4
5	C01	84 1 11	01	N	AQQAGT	10.75-11.35	P	N--A	2.76	1.54	01	N-A		5
6														6
7	C01	84 1 11	01	N	HOWPKE	24.8-28.35	P	.797	3.69	1.84	01	FRT		7
8														8
9	C01	84 1 11	01	N	PCOPHO	28.45-28.55	P	.785	3.38	.301	100	N-A		9
10														10
11	C01	84 1 11	01	N	AQQAGT	29.45-30.35	P	.785	3.69	2.15	050	N-A		11
12														12
13	C01	84 1 11	01	N	AQQAGT	35.85-39.35	P	.797	5.53	3.69	050	N-A		13
14														14
15	C01	84 1 11	01	N	AQQAGT	44.45-44.95	P	.398	3.69	3.01	050	N-A		15
16														16
17	C01	84 1 11	01	N	IQQAGT	48.3-50.45	P	.718	5.54	3.69	050	N-A		17
18														18
19	C01													19
20														20
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72	73 74	75 76 77	78 79 80	

49289/7/78-200P DS-L942

DATE	SHEET 3 OF 18
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

80-COLUMN CARD PUNCH LAYOUT

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Slice of Pumbleyerng
Pumbleyerng Reserve
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

FIELD IDENTIFICATION

(WRITE ZERO AS '0'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84 11 10	01	N	A00A6T	50.45-52.91	P 2 STEMS	.56.4	5.54	3.6.9	05.1	N-A	1
2													2
3	C01	84 11 10	01	N	A00A6T	56.96-59.61	P	.56.4	5.54	3.6.9	05.0	N-A	3
4													4
5	C01	84 11 10	01	N	A00A6T	69.95-73.05	P	.63.8	4.61	3.01	05.6	N-A	5
6													6
7	C01	84 11 10	01	N	A00A6T	75.95-77.85	P	.39.8	4.00	3.07	05.8	N-A	7
8													8
9	C01												9
10													10
11	C01												11
12													12
13	C01												13
14													14
15	C01												15
16													16
17	C01												17
18													18
19	C01												19
20													20

1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80

821

Dumbleyung Reserve
Species at
Sample Site 01

Polypodiaceae

Cheilanthes tenuifolia

Gramineae

Aira caryophyllea
Avena fatua
Danthonia caespitosa
Bromus diandrus
Ehrarta longiflora
Lolium rigidum
Pentaschistis airoides
Stipa elegantissima
Vulpia bromoides

Proteaceae

Hakea preissii

Chenopodiaceae

Rhagodia preissii

Amaranthaceae

Ptilotus humilis
Ptilotus polystachyus

Pittosporaceae

Pittosporum phillyraeoides

Mimosaceae

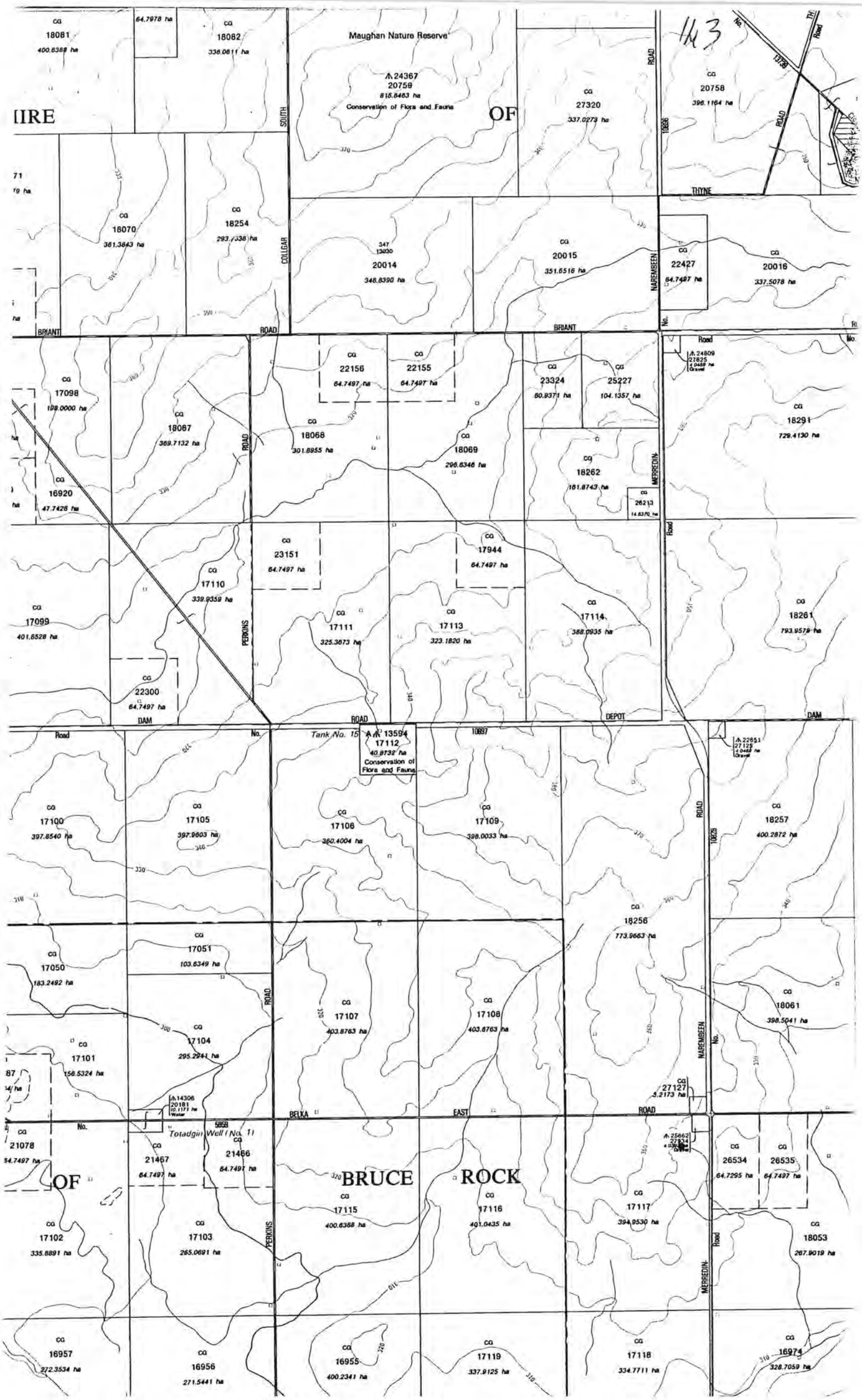
Acacia acuminata

Myrtaceae

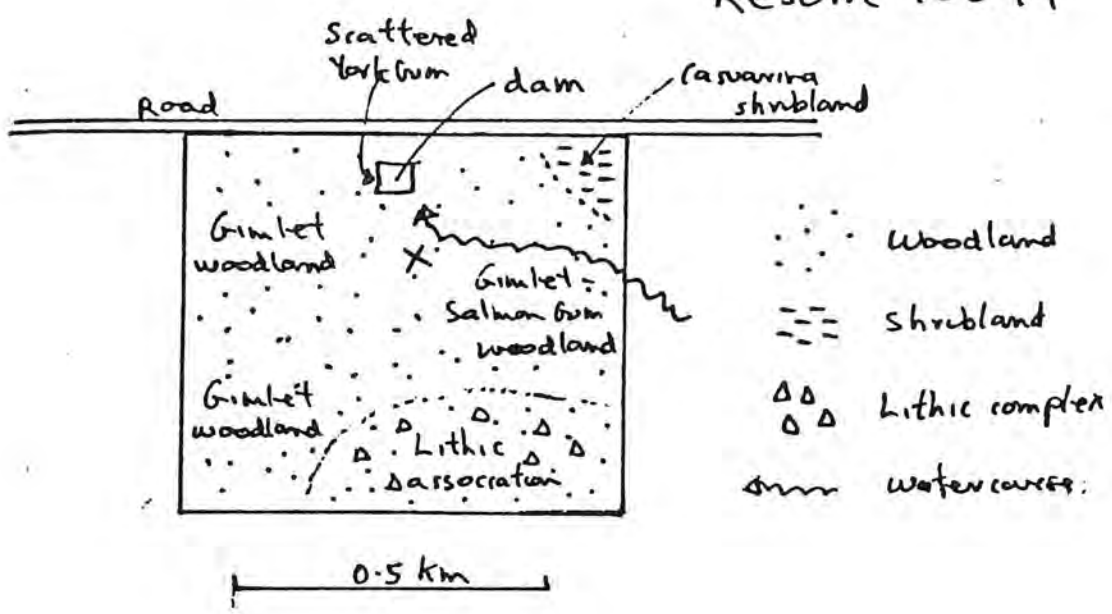
Eucalyptus botryoides

Nature Reserve name and/or number	A 13594
Local Authority	Hexedin
Map	Litho 24/80
Area (ha)	40.5
Nearest named place	26 kms SSE of Hexedin
Sample Site	01
Coordinates	31°41", 118° 21"
Access	see attached map
Dominant Vegetation	York Gum Jam Woodland
Nos of species	48
Vegetation Details	Attached
Physical Features	Deep Sandy loam near flood line
Last Fire	more than 20 years
Proceeded from Lineblock	Yes

Sampling Methods	20m x 20m Quadrat Species I/A, Perennial cover by line intercept Photo
Date Sampled	October 1984
Next Sampling	October 1987


Maughan Nature Reserve
A24367
20759
815.8463 ha
Conservation of Flora and Fauna
CG 18081 400.6388 ha
64.7978 ha
CG 18082 336.0611 ha
CG 20758 396.1164 ha
CG 27320 337.0273 ha
CG 18070 361.3843 ha
CG 18254 293.7338 ha
347 13030
CG 20014 348.8390 ha
CG 20015 351.6516 ha
CG 22427 64.7497 ha
CG 20016 337.5078 ha
CG 22156 64.7497 ha
CG 22155 64.7497 ha
CG 23324 60.9371 ha
CG 25227 104.1357 ha
CG 17098 108.0000 ha
CG 18067 369.7132 ha
CG 18068 301.8955 ha
CG 18069 296.6346 ha
CG 18262 161.8743 ha
CG 18291 729.4130 ha
CG 16920 47.7426 ha
CG 23151 64.7497 ha
CG 17944 64.7497 ha
CG 17110 339.9359 ha
CG 17099 401.6528 ha
CG 17111 325.3673 ha
CG 17113 323.1820 ha
CG 17114 388.0935 ha
CG 18261 793.9579 ha
CG 22300 64.7497 ha
Tank No. 15
A 13594
17112
40.8732 ha
Conservation of Flora and Fauna
CG 17100 397.8540 ha
CG 17105 397.9603 ha
CG 17106 360.4004 ha
CG 17109 398.0033 ha
CG 18257 400.2872 ha
CG 17051 103.6349 ha
CG 17050 183.2492 ha
CG 18256 773.9663 ha
CG 17107 403.8763 ha
CG 17108 403.8763 ha
CG 18061 398.5041 ha
CG 17104 295.2941 ha
CG 17101 156.5324 ha
A 14306
20181
10.1171 ha
Water
Totadgin Well (No. 1)
CG 27127 5.2173 ha
CG 21078
CG 21467 64.7497 ha
CG 21466 64.7497 ha
CG 26534 64.7295 ha
CG 26535 64.7497 ha
CG 17115 400.6368 ha
CG 17116 401.0435 ha
CG 17117 394.9530 ha
CG 17102 335.8891 ha
CG 17103 265.0691 ha
CG 18053 267.9019 ha
CG 16957 272.3534 ha
CG 16956 271.5441 ha
CG 16955 400.2341 ha
CG 17119 337.9125 ha
CG 17118 334.7711 ha
CG 16974 328.7059 ha
BRIANT ROAD
COLLGAR ROAD
NAREMBEEN ROAD
PERKINS ROAD
MERREDIN ROAD
THYNE ROAD
DEPOT ROAD
DAM ROAD
BELKA EAST ROAD
OF BRUCE ROCK

Reserve 13594





Reserve 13594

The view of the quadrat 01 looking north west along diagonal 3 to 1 (12/10/84).

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Heil of Mercedes 13594
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS '0'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

49289/7/75-200P DS-L942

DATE	SHEET 15	OF 18
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )	

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84 1 013	01	N	E9JLUY	2.3-2.4	P	.118	6.15	3.07	000	FRT	1
2													2
3	C01	84 1 013	01	N	E84P1G	3.6-4.85	P 6 STEMS	N--A	1.23	.615	000	FRT	3
4													4
5	C01	84 1 013	01	N	L5AVH0	6.39-6.41	CH	N--A	.615	000	000	N-A	5
6													6
7	C01	84 1 012	01	N	E9JLUY	10.4-10.401	P	N--A	1.54	000	010	N-A	7
8													8
9	C01	84 1 012	01	N	A00A6T	11.3-11.35	P 2 STEMS	.1896	1.55	.23	005	N-A	9
10													10
11	C01	84 1 013	01	N	SBGSH0	10.56-11.3	CH	N--A	1.23	000	025	FRT	11
12													12
13	C01	84 1 013	01	N	SBGSH0	12.19-13.6	CH	N--A	1.23	000	025	FRT	13
14													14
15	C01	84 1 013	01	N	E9JLUY	12.4-12.52	P	.3176	.155	.23	005	FRT	15
16													16
17	C01	84 1 013	01	N	L5AVH0	13.94-14.37	CH	N--A	.615	000	001	N-A	17
18													18
19	C01												19
20													20
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

49289/7/75-200PDS-L042

DATE	SHEET	OF
	16	18

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Moreeden
13596
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80
1	C01	84 1 01 3	01	N	A00A6T	14·5-14·6	P	·47	84·9	4·3	001	N-A
2												
3	C01	84 1 01 3	01	N	SBGSH0	16·2-16·75	CH	N--A	·230	000	008	FRT
4												
5	C01	84 1 01 3	01	N	E9JLUY	16·7-16·72	P	·47	3·07	2·7	005	FRT
6												
7	C01	84 1 01 3	01	N	LSAVH0	17·85-18·62	CH	N--A	·461	000	000	N-A
8												
9	C01	84 1 01 3	01	N	G4B8H0	20-21·12	CH	N--A	·461	000	000	N-A
10												
11	C01	84 1 01 3	01	N	LSAVH0	22·8-24·17	CH	N--A	·615	000	000	N-A
12												
13	C01	84 1 01 3	01	N	PDLMH0	23·93-24·3	CH	N--A	·615	000	000	FRT
14												
15	C01	84 1 01 3	01	N	PDLMH0	24·6-25·5	CH	N--A	·615	000	000	FRT
16												
17	C01	84 1 01 3	01	N	GBLP1G	25·8-26·8	P 6 SITES	M--S	1·84	·923	001	FRT
18												
19	C01	84 1 01 3	01	N	LSAVH0	27·44-28·3	P	N--A	·923	000	000	FRT
20												

49259/7/75-200PDS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Merredin 13594
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET	OF
	17	18

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS "Ø"; LETTER "I" AS "1"; LETTER "Z" AS "2".)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C Ø 1	8 4 1 0 1 3	Ø 1	N	P D L M H Ø	2 9 . 7 7 - 3 Ø . 2	C H	N - - A	. 5 Ø Ø			F R T	1
2													2
3	C Ø 1	8 4 1 0 1 3	Ø 1	N	P D L M H Ø	3 1 . 9 - 3 2 . Ø 2	C H	N - - A	. 5 Ø Ø			F R T	3
4													4
5	C Ø 1	8 4 1 0 1 3	Ø 1	N	C 8 4 P 1 G	3 6 . 2 - 3 8 . 1 6	P	N - - A	1 . 2 3				5
6													6
7	C Ø 1	8 4 1 0 1 3	Ø 1	N	L S A V H Ø	5 4 . 4 4 - 5 5 . Ø 5	C H	N - - A	. 6 1 5				7
8													8
9	C Ø 1	8 4 1 0 1 3	Ø 1	N	L S A V H Ø	5 8 - 5 8 . 5 1	C H	N - - A	. 6 1 5			N - A	9
10													10
11	C Ø 1	8 4 1 0 1 3	Ø 1	N	L S A V H Ø	6 Ø . 5 - 6 Ø . 9 5	C H	N - - A	. 6 1 5			F R T	11
12													12
13	C Ø 1	8 4 1 Ø 1 3	Ø 1	N	A H A C R A	6 Ø . 9 5 - 6 1 . 8 4	C H	N - - A	. 1 5 4			F R T	13
14													14
15	C Ø 1	8 4 1 0 1 3	Ø 1	N	D 4 2 R H Ø	6 3 . 6 7 - 6 3 . 8 2	C H	N - - A	. 7 6 9			F R T	15
16													16
17	C Ø 1	8 4 1 Ø 1 3	Ø 1	N	L S A V H Ø	6 3 . 7 6 - 6 4 . 4	C H	N - - A	. 6 1 5			F R T	17
18													18
19	C Ø 1												19
20													20

	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

18

49289/7/78-200PDS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Site of Herredia
13594
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET	OF
	18	48

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84 1 01 30	01	N	EGJLUY	62.9-63	P	.478	5.84	4.92	001	FRT	1
2													2
3	C01	84 1 01 30	01	N	EGJLUY	67.5-67.6	P	.478	5.84	4.92	001	FRT	3
4													4
5	C01	84 1 01 30	01	N	ANNUAL GROUND COVER		T 30% COVER	AN--A	.500	0000	00	FLT	5
6													6
7	C01	84 1 01 30	01	N	EGJLUY	71.4-71.5	P	.797	4.14	4.00	005	FRT	7
8													8
9	C01	84 1 01 30	01	N	AHAERH	74.13-74.33	CH	N--A	.154	0000	005	FRT	9
10													10
11	C01	84 1 01 30	01	N	LSAVHØ	78.92-80.35	CH	N--A	.384	0000	005	N-A	11
12													12
13	C01	84 1 01 30	01	N	EGJLUY	83.6-85.5	P	.399	2.77	.923	005	FRT	13
14													14
15	C01	84 1 01 30	01	N	LSAVHØ	85.02-85.3	CH	N--A	.461	0000	005	FRT	15
16													16
17	C01	84 1 01 30	01	N	SBGSHØ	86.9-87.14	CH	N--A	.307	0000	002	FRT	17
18													18
19	C01	84 1 01 30	01	N	EGJLUY	87.1-89.3	P	.478	3.69	2.15	002	FRT	19
20													20
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

49259/7/75-200P D5-L042

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Slice of Moredun
13594
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET 19 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C Ø1	84	1	Ø13	Ø1	N	E9JLVY	91·1-91·8	P	·478	3·69	2·15		FRT	1
2															2
3	C Ø1	84	1	Ø13	Ø1	N	E9JLVY	92·9-93	P	·478	6·76	3·69		FRT	3
4															4
5	C Ø1	84	1	Ø13	Ø1	N	LSAVHØ	93·8-94·11	CH	N--A	·615			FRT	5
6															6
7	C Ø1														7
8															8
9	C Ø1														9
10															10
11	C Ø1														11
12															12
13	C Ø1														13
14															14
15	C Ø1														15
16															16
17	C Ø1														17
18															18
19	C Ø1														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

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Reserve 13594
Species at
Sample Site 01

Gramineae

Aristida contorta
Avena fatua
Briza maxima
Bromus rubens
Danthonia setacea
Lolium perenne
Rentaschizdis airoides
Stardochloa scirpoidea
Stipa elegantissima
Stipa trichophylla
Vulpia bromoides
Vulpia myuros

Cyperaceae

Lepidosperma viscidum

Dasypogonaceae

Lomandra collina
Lomandra effusa

Dianellaceae

Dianella revoluta

Proteaceae

Grevillea paniculata

Santalaceae

Santalum acuminatum

Chenopodiaceae

Rhagodia preissii

Amaranthaceae

Ptilotus quadchaudi
Ptilotus humilis
Ptilotus polystachyus

Mimosaceae

Acacia acuminata
Acacia hemiteles

Papillionaceae

Medicago truncatula
Oxylobium lanceolatum

Dilleniaceae

Hibbertia rupicola

Thymelaceae

Pimelia argentea

Myrtaceae

Eucalyptus loxophleba
Eucalyptus salmonophloia

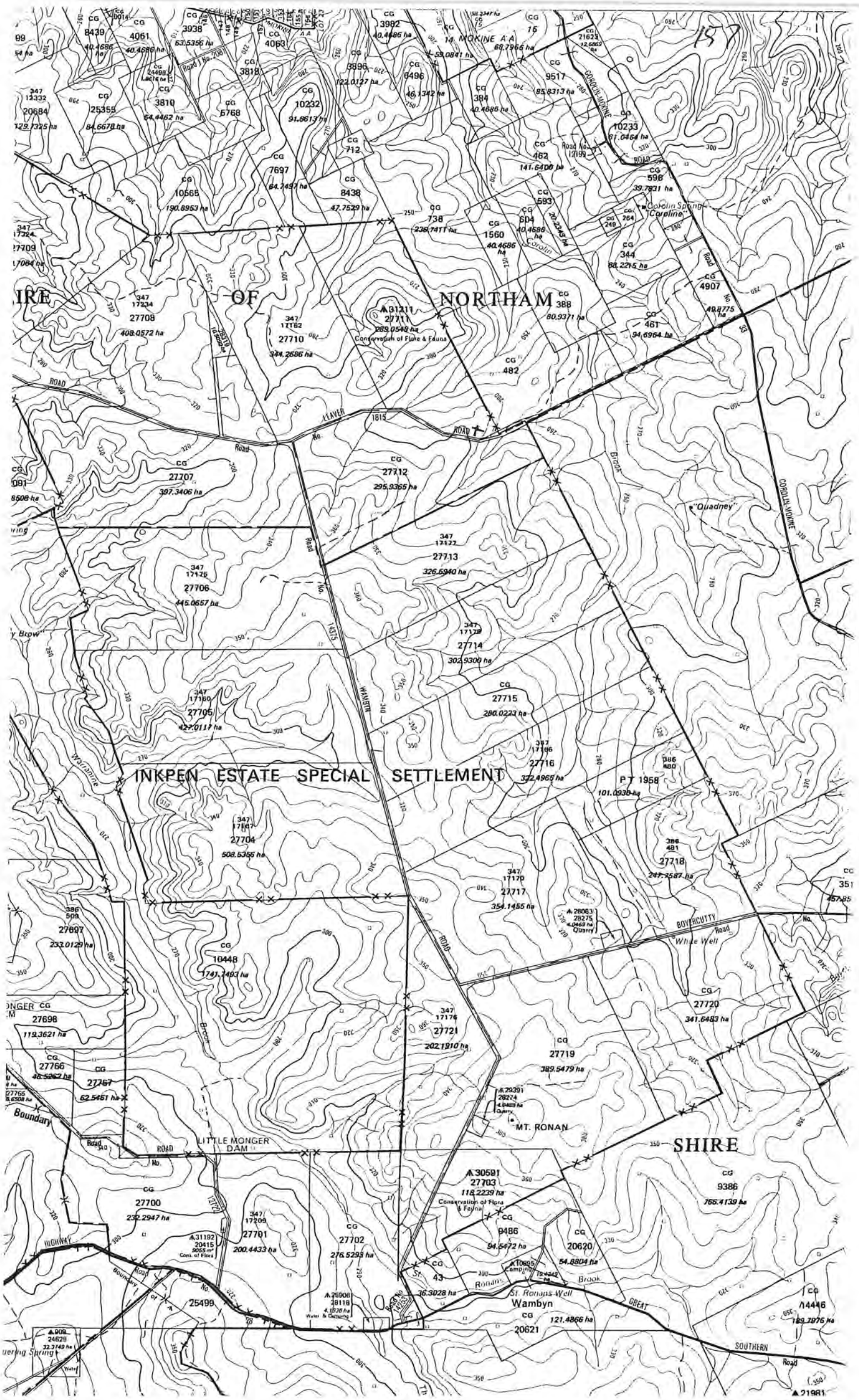
Haloragaceae
Glischrocaryon aureum
Umbelliferae
Platysace maxwellii
Trachymene cyanopetala
Trachymene pilosa
Primulaceae
Anagallis arvensis
Lamiaceae
Hemigenia westringioides
Solanaceae
Nicotiana rotundifolia
Myoporaceae
Eremophila drummondii
Goodeniaceae
Dampiera wellsiana
Rubiaceae
Pedinopole uliginosum
Bretschneidera calendula
Brachycome bellidioides

Asteraceae

Helichrysum lindleyi
Hypochoeris glabra
Pololepis lessonii
Podotheca gnaphaloides
Sonchus asper ssp. wymanii
Ursinia anthemoides
Waitzia acuminata

Nature Reserve name and/or number	Mokine C31211
Local Authority	Northam
Map	2/80
Area (ha)	289
Nearest named Place	20 kms N W of York
Sample Site	01
Coordinates	31°46', 116°35"
Access	See attached map
Dominant Vegetation	York Gum Jam Low Woodland B
Nos of species	32
Vegetation Details	Attached
Physical Features	Shallow dark loam over granite at mid slopes
Last Fire	Spring 1976
Protected from Livestock	Yes

Sampling Methods	20 m x 20 m Quadrat Species I/a, Perennial Cover by line intercept Photo.
Date Sampled	November 1984
Next Sampling	October 1987


OF NORTHAM
INKPEN ESTATE SPECIAL SETTLEMENT
SHIRE
MOKINE A A
CORDLIN-MOKINE
Road No. 1815
Road No. 14315
Road No. 12199
Road No. 14203
ROAD
Road
Brook
WANGEN
Warrabinne
Cordlin Spring
"Cordline"
"Quadney"
Conservation of Flora & Fauna
LITTLE MONGER DAM
MT. RONAN
BOYERCUTTY
White Well
Wambyn
St. Ronans Well
HIGHWAY
Boundary
SOUTHERN
GREAT
27708
27710
27711
27712
27713
27714
27715
27716
27717
27718
27720
27721
27707
27706
27705
27704
27697
27698
27766
27767
27700
27701
27702
27703
9386
20620
20621
25499
PT 1958

49259/7/76-200PDS-L942

DATE	SHEET 4	OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( )	No ( )

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER
Mohave Reserve
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS 'Ø'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84	1	15	Ø1	N	ANNUAL GROUND COVER		T 1ØØ% COVE	N--A	.5ØØ	ØØØC	N-A	FLT	1
2															2
3	CØ1	84	1	15	Ø1	N	ERIOGONUM	3.25-3.55	P	N--A	1.69	ØØØØ	Ø5ØØ	N-A	3
4															4
5	CØ1	84	1	15	Ø1	N	ERIOGONUM	4.35-4.45	P	N--A	.923	ØØØØ	Ø5ØØ	N-A	5
6															6
7	CØ1	84	1	15	Ø1	N	ERIOGONUM	4.6-4.65	P	N--A	1.23	ØØØØ	Ø5ØØ	N-A	7
8															8
9	CØ1	84	1	15	Ø1	N	ERIOGONUM	5.7-5.72	P	N--A	1.23	ØØØØ	Ø5ØØ	N-A	9
10															10
11	CØ1	84	1	15	Ø1	N	ERIOGONUM	2.14-4.12	P	.351	12.9	1.55	Ø5ØØ	FRT	11
12															12
13	CØ1	84	1	15	Ø1	N	ERIOGONUM	1Ø.35-1Ø.55	P	N--A	1.69	1.22	Ø6ØØ	FRT	13
14															14
15	CØ1	84	1	15	Ø1	N	AØØA6T	12.52-15.47	P	.311	3.69	2.77	Ø6ØØ	N-A	15
16															16
17	CØ1	84	1	15	Ø1	N	AØØA6T	17.75-18.8	P 6 STEMS	N--S	2.46	.3Ø7	Ø5ØØ	N-A	17
18															18
19	CØ1														19
20															20

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49259/7/78-200PDS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Mokine Reserve
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE | SHEET 45 OF 48

CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
C01	841 1 11 5	01	N	AQQA6T	21.45-21.92	P 6 STEMS	N--A	2.46	.301	050	N-A	1
												2
C01	841 1 11 5	01	N	AQQA6T	29.7-30.95	P	.199	3.07	1.84	050	N-A	3
												4
C01	841 1 11 5	01	N	AQQA6T	33.35-34.2	P	.159	2.76	1.69	050	N-A	5
												6
C01	841 1 11 5	01	N	AQQA6T	33.35-34.15	P	.279	3.07	2.15	070	N-A	7
												8
C01	841 1 11 5	01	N	E9JLUY	34.45-34.5	P	N--A	1.54	1.23	050	N-A	9
												10
C01	841 1 11 5	01	N	E9JLUY	34.6-34.65	P	.129	3.38	1.69	050	N-A	11
												12
C01	841 1 11 5	01	N	AQQA6T	34.65-35.8	P 2 STEMS	.366	4.31	2.76	050	N-A	13
												14
C01	841 1 11 5	01	N	E9JLUY	35.55-35.9	P	N--A	1.84	1.23	050	N-A	15
												16
C01	841 1 11 5	01	N	E9JLUY	35.55-35.9	P	N--A	2.46	1.23	050	N-A	17
												18
C01												19
												20

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80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER
Mobrie Reserve
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS 'Ø'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

49259/7/76-200P DS-L942

DATE	SHEET 46	OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )	

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	8:4	1	1:1:5	Ø1	N	E9JLVY	37·25-37·3	P	N--A	3·ØM	1·69	Ø5Ø	N-A	1
2															2
3	CØ1	8:4	1	1:1:5	Ø1	N	E9JLVY	37·6-37·85	P	N--A	2·76	1·54	Ø5Ø	N-A	3
4															4
5	CØ1	8:4	1	1:1:5	Ø1	N	E9JLVY	38·3-38·75	P	N--A	3·38	1·23	Ø5Ø	ERT	5
6															6
7	CØ1	8:4	1	1:1:5	Ø1	N	E9JLVY	51·95-52·45	P	N--A	2·7M	1·Ø7	Ø5Ø	N-A	7
8															8
9	CØ1	8:4	1	1:1:5	Ø1	N	E9JLVY	51·65-52·85	P	·6389	·43	3·13	Ø5Ø	ERT	9
10															10
11	CØ1	8:4	1	1:1:5	Ø1	N	AØQA6T	55·85-56·42	P	N--A	1·84	·923	Ø5Ø	N-A	11
12															12
13	CØ1	8:4	1	1:1:5	Ø1	N	AØQA6T	55·9-6Ø·Ø5	P	·4784	·31	3·ØM	Ø6Ø	N-A	13
14															14
15	CØ1	8:4	1	1:1:5	Ø1	N	AØQA6T	62·M-62·75	P	N--A	2·7M	1·54	Ø5Ø	N-A	15
16															16
17	CØ1	8:4	1	1:1:5	Ø1	N	E9JLVY	59·35-63·85	P	1·26	8·4M	3·42	Ø5Ø	ERI	17
18															18
19	CØ1														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

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49289/7/78-200PDS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER
Mokeiwa Reserve
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET 47 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS "Ø"; LETTER "I" AS "I"; LETTER "Z" AS "Z".)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	B4	1	15	Ø1	N	AØØA6T	66.85-67.15	P	.319	4.ØØ	2.15	ØSØ	N-A	1
2															2
3	CØ1	B4	1	15	Ø1	C	AØØA6T	69.55-70.6	P	.319	4.ØØ	2.15	ØSØ	N-A	3
4															4
5	CØ1	B4	1	15	Ø1	N	E9JLVY	12.Ø5-78.65	P	1.26	8.81	3.49	ØØS	ERT	5
6															6
7	CØ1	B4	1	15	Ø1	N	AØØA6T	76.75-78.85	P	.119	3.38	2.77	Ø25	N-A	7
8															8
9	CØ1	B4	1	15	Ø1	N	AØØA6T	81.55-82.5	P	.319	3.69	3.Ø7	Ø25	N-A	9
10															10
11	CØ1	B4	1	15	Ø1	N	E9JLVY	82.9-82.95	P	N--A	1.54	1.23	ØSØ	N-A	11
12															12
13	CØ1	B4	1	15	Ø1	N	AØØA6T	82.1-83.4	P	.366	4.31	2.15	ØSØ	N-A	13
14															14
15	CØ1	B4	1	15	Ø1	N	E9JLVY	83.2-84.35	P	.119	3.38	1.69	ØSØ	N-A	15
16															16
17	CØ1	B4	1	15	Ø1	N	AØØA6T	85.1-85.8	P	N--A	1.54	1.23	Ø05	N-A	17
18															18
19	CØ1														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Mobine Reserve
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

49259/7/75-200P DS-L942

DATE | SHEET 48 OF 48

CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	E.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84	1	11 5	01	N	AQQA6T	84.95-86.15	P	.226	3.38	2.1	MMC4C	N-A	1
2															2
3	C01	84	1	11 5	01	N	AQQA6T	90.75-90.85	P	.119	2.MM	1.1	84C05	N-A	3
4															4
5	C01	84	1	11 5	01	N	EQJLUY	92.55-96.16	P 2 STEMS	.508	11.5	2.1	MMC4C	FRT	5
6															6
7	C01														7
8															8
9	C01														9
10															10
11	C01														11
12															12
13	C01														13
14															14
15	C01														15
16															16
17	C01														17
18															18
19	C01														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

Mokine Reserve
Species at Site 01

Polypodiaceae

Cheilanthes tenuifolia

Gramineae

Bira coryophyllea
Avena fatua
Briza maxima
Briza minor
Danthonia setacea
Neurachne alopecuroides
Pentaschistis airoides
Stipa pycnostachya
Stipa tenuifolia

Cyperaceae

Lepidosperma angustatum

Dasypogonaceae

Xanthorrhoea preissii

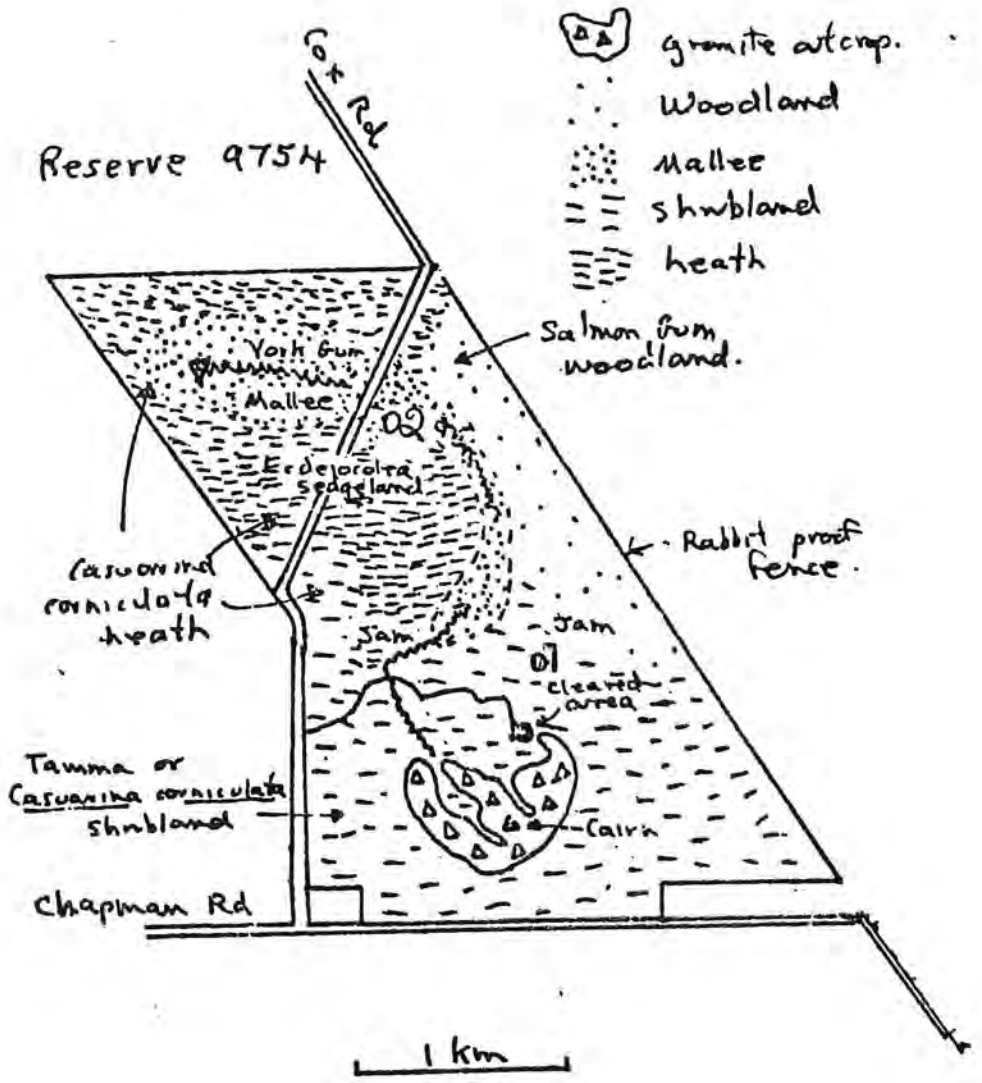
Dianellaceae

Stypandra imbricata
Arthropodium capillipes
Borya nitida

Iridaceae

Romulea rosea

Nature Reserve name and/or number	9754
Local Authority	Norseman
Map	Litho 6/80
Area (ha)	688
Nearest named Place	26 kms ENS of Camphorn Siding
Sample Site	01
Coordinates	31°51", 118°51"
Access	See attached map
Dominant Vegetation	Jam Woodland
Nos Species	29
Vegetation Details	Attached
Physical Features	Light red clay poorly drained & shallow over granite
Last Fire	more than 30 years
Proceeded from Livestock	Yes


granite outcrop.
Woodland
Mallee
shrubland
heath
Cox Rd
Reserve 9754
York Gum
Mallee
Salmon Gum
woodland.
Eremophila
sedgeland
Rabbit proof
fence.
Casuarina
cunninghamiana
heath
Jam
Jam
cleared
area
Tamma or
Casuarina cunninghamiana
shrubland
Cairn
Chapman Rd
1 km

Sample Site 01

Sampling Methods 20 m × 20 m Quadrat
Species I/A, Perennial
Cover by line
intercept. Photo.

Date Sampled. 11/10/84

Next Sampling October 1987



The view of the quadrat 01 looking North 11/10/82.

Reserve 9754
Species list at
Sample Site 01

Polypodiaceae

Cheilanthes tenuifolia

Gramineae

Bromus diandrus
Bromus rubens
Danthonia caespitosa
Polypogon monspeliensis
Stipa trichophylla
Vulpia bromoides
Vulpia myuros

Santalaceae

Santalum spicatum

Polygonaceae

Muehlenbeckia adpressa

Amaranthaceae

Ptilotus villosum

Caryophyllaceae

Silene gallica

Cruciferae

Raphanus raphanistrum

Pittosporaceae

Pittosporum phylliraeoides

Mimosaceae

Acacia decemineda

Geraniaceae

Erodium botrys

Solanaceae

Nicotiana rotundifolia

Solanum nigrum

Scrophulariaceae

Parentucellia latifolia

Asteraceae

Angianthus tomentosus
Arctotheca calendula
Brachyscome bellidioides
Centaurea melitensis
Chrysocoryne drummondii
Hypochaeris glabra
Podolepis canillosis
Podolepis lessonii
Podotheca gnaphaloides
Waitzia acuminata

49259/7/75-200PDS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Naremburn Shire, 9754
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET 7 OF 18
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

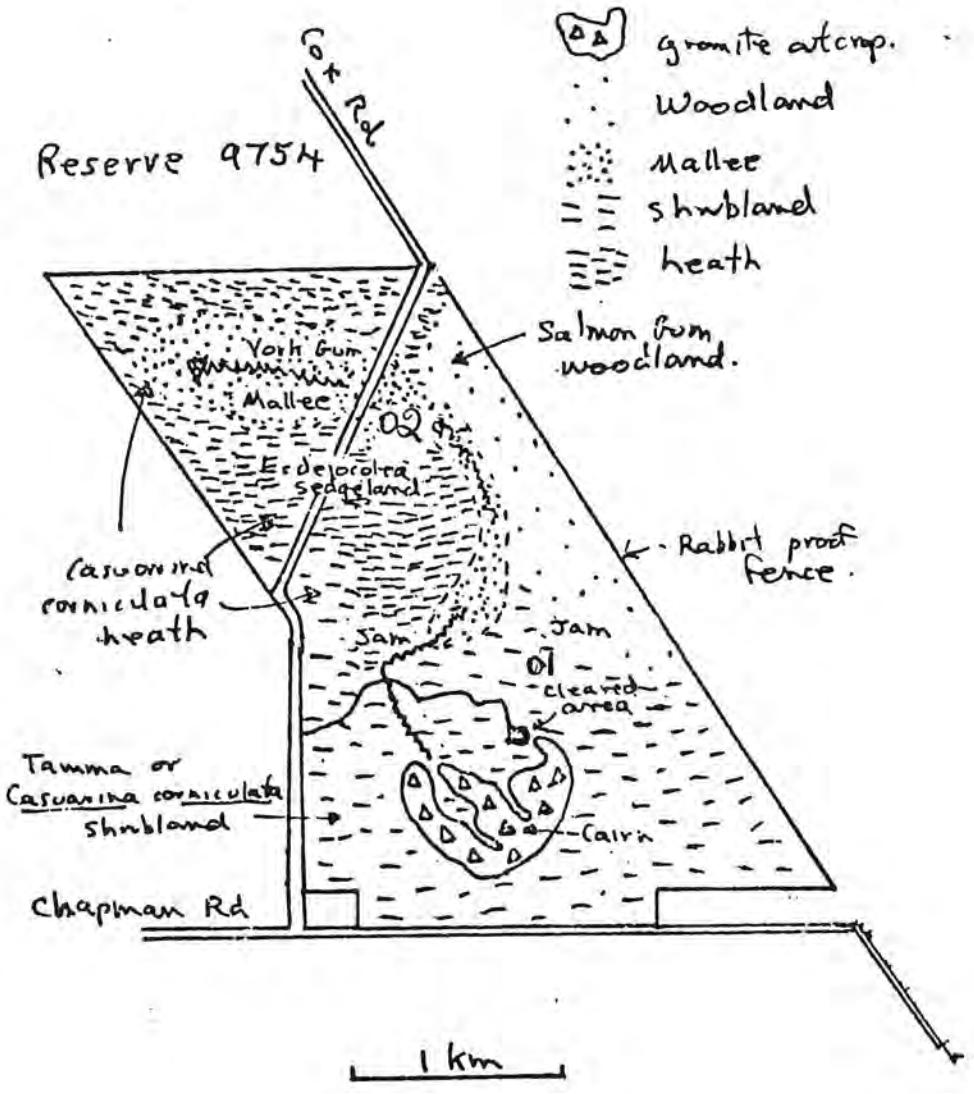
ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84	1	011	01	N	A00QA6T	33.7-35.1	P	.239	2.46	1.84	030	N-A	1
2															2
3	C01	84	1	011	01	N	A00QA6T	34.4-37.3	P	.558	3.07	2.46	030	N-A	3
4															4
5	C01	84	1	011	01	N	A00QA6T	53.3-56.8	P	M--S	2.31	1.23	030	N-A	5
6															6
7	C01	84	1	011	01	N	A00QA6T	75.8-79	P	.677	3.07	1.54	030	N-A	7
8															8
9	C01	84	1	011	01	N	A00QA6T	82.2-83.2	P	.239	2.77	1.54	030	N-A	9
10															10
11	C01	84	1	011	01	N	A00QA6T	85-86	P	.478	4.00	2.15	030	N-A	11
12															12
13	C01	84	1	011	01	N	ANNUAL GROUND COVER		T 100% COVE	N--A	.500	0000	N-A	FLT	13
14															14
15	C01														15
16															16
17	C01														17
18															18
19	C01														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

021

Nature Reserve name and/or number	9754
Local Authority	Naremburn
Map	Litho 6/80
Area (ha)	688
Nearest named Place	26 kms ENS of Cranfhorn Siding
Sample Site	02
Coordinates	31°50", 118°50"
Access	See attached map
Dominant Vegetation	York gum Mallee
Nos species	65
Vegetation Details	Attached
Physical Features	Sandy grey clay in flow line.
Last fire	more than 30 years ago.

Sample Site	02
Proceeded from Lubbock	Yes
Sampling Methods	20 m x 20 m Quadrat Species I/a, perennial cover by line intercept. Photo.
Date Sampled	October 1984
Next Sampling	October 1987


granite outcrop.
Woodland
Mallee
shrubland
heath
Cox Rd
Reserve 9754
York Gum
Mallee
Eremophila
Casuarina
cornicularia
heath
Salmon Gum
woodland.
Rabbit proof
fence.
Jam
Jam
cleared
area
Tamma or
Casuarina cornicularia
shrubland
Cairn
Chapman Rd
1 km

49289/7/78-200PDS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shore of Naremburn
9754
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET	OF
	8	48

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84	1	01	20	2	MAØQA6T	Ø-·4	P	N--A	2·15	·615	ØØ5	N-A	1
2															2
3	C01	84	1	01	20	2	NSBGSHØ	1·1-1·8	CH	N--A	·615	ØØØØ	10	FLO	3
4															4
5	C01	84	1	01	20	2	NLSADHØ	3·8-5	CH	N--A	·461	ØØØØ	10	FLO	5
6															6
7	C01	84	1	01	20	2	NE9JLUY	5·33-5·43	P	·Ø79	2·76	1·23	ØØ1	N-A	7
8															8
9	C01	84	1	01	20	2	NSBGSHØ	6·4-7·7	CH	N--A	1·23	ØØØØ	100	FLO	9
10															10
11	C01	84	1	01	20	2	NE9JLUY	9·6-9·7	P	·478	3·69	2·77	ØØ5	FRT	11
12															12
13	C01	84	1	01	20	2	NLSADHØ	9·85-13·3	CH	N--A	5·54	ØØØØ	90	FRT	13
14															14
15	C01	84	1	01	20	2	NAØQA6T	11·8-11·9	P 2 STEMS	·451	3·69	3·07	ØØ5	N-A	15
16															16
17	C01	84	1	01	20	2	NAØQA6T	14·9-15·5	P 2 STEMS	·338	3·38	2·77	ØØ5	N-A	17
18															18
19	C01	84	1	01	20	2	N M3WARE	18·7-19·3	P 5 STEMS	M--S	2·46	1·54	ØØ5	FRT	19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

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80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Size of Nelson 9754
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

49259/7/76-200PDS-L942

DATE	SHEET 9	OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( )	No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84	1	Ø12	Ø2	N	M3WH8H	2Ø-21	P 5 STEMS	·718	2·76	1·54	ØØ5	FRT	1
2															2
3	CØ1	84	1	Ø12	Ø2	N	S1LSHØ	21-21·6	P 4 STEMS	·718	2·ØØ	1·54	ØØ5	FLO	3
4															4
5	CØ1	84	1	Ø12	Ø2	N	E9JLUY	22·2-22·7	P	·319	3·Ø7	2·46	ØØ5	FRT	5
6															6
7	CØ1	84	1	Ø12	Ø2	N	L5ADHØ	24·72-25·5	CH	N--A	·461	ØØ	ØØ	FRT	7
8															8
9	CØ1	84	1	Ø12	Ø2	N	L5ADHØ	28·55-29·2	CH	N--A	·461	ØØ	ØØ5	FRT	9
10															10
11	CØ1	84	1	Ø12	Ø2	N	L5ADHØ	31·15-32·3	CH	N--A	·461	ØØ	Ø3Ø	FRT	11
12															12
13	CØ1	84	1	Ø12	Ø2	N	L5ADHØ	32·78-33·4	CH	N--A	·461	ØØ	ØØ1	FRT	13
14															14
15	CØ1	84	1	Ø12	Ø2	N	E9JLUY	33·4-34·4	P	·478	4·61	3·38	ØØ5	FRT	15
16															16
17	CØ1	84	1	Ø12	Ø2	N	SBGSHØ	34·36-36·14	CH	N--A	·461	ØØ	ØØ5	FRT	17
18															18
19	CØ1	84	1	Ø12	Ø2	N	CØJPHØ	36·7-37·Ø4	CH	N--A	·923	ØØ	ØØ1	FRT	19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

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49289/7/75-200PDS-L942

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Slave Lake Northern
9754
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET	OF
	10	18

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	A Ø Ø A 6 T	3 5 · 1 - 3 8 · 1	P 2 STEMS	· 3 9 5	3 · 6 9	2 · 7 1	Ø Ø 5	N - A	1
2													2
3	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	E 9 I L V Y	3 9 · 8 - 3 9 · 9	P	· 3 1 9	5 · 5 4	1 · 8 4	Ø Ø 5	F R T	3
4													4
5	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	S B G S H Ø	4 2 - 4 2 · 5	C H	N - - A	· 4 6 1	Ø Ø Ø	Ø Ø 5	F R T	5
6													6
7	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	A Ø Ø A 6 T	4 3 · 4 - 4 3 · 6	P	· 3 1 9	· 4 6 1	2 · 7 1	Ø Ø 5	N - A	7
8													8
9	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	S I L S H Ø	4 3 · 9 - 4 4 · 9	P 2 STEMS	· 4 5 1	2 · 4 1	1 · 8 4	Ø Ø 5	N - A	9
10													10
11	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	S B G S H Ø	4 3 · 6 - 4 4 · 9	C H	N - - A	· 4 6 1	Ø Ø Ø	Ø Ø 5	F R T	11
12													12
13	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	S B G S H Ø	4 6 · 5 - 4 6 · 9	C H	N - - A	· 4 6 1	Ø Ø Ø	Ø Ø 5	F R T	13
14													14
15	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	H 3 W H B H	4 8 · 3 - 4 8 · 5	P 5 STEMS	· 4 7 9	3 · Ø 7	1 · 8 4	Ø Ø 5	F R T	15
16													16
17	C Ø 1	8 4 1 Ø 1 2	Ø 2	N	S B G S H Ø	5 Ø · 4 - 5 Ø · 8	C H	N - - A	· 9 2 3	Ø Ø Ø	Ø Ø 5	F R I	17
18													18
19	C Ø 1												19
20													20
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

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49259/7/76-200P D5-L942

DATE	SHEET	OF
	11	48

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Noarlunga 9756
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84	1	012	02	N	AQQA6T	52-52.1	P	.319	3.07	3.38	001	N-A	1
2															2
3	C01	84	1	012	02	N	E9JLUY	52-52.1	P	.319	6.15	4.31	005	FRT	3
4															4
5	C01	84	1	012	02	N	S1LSHØ	54.6-55.3	P	.399	2.15	1.23	005	N-A	5
6															6
7	C01	84	1	012	02	N	LSADHØ	54.5-55.3	CH	N--A	.615	0.00	100	FRT	7
8															8
9	C01	84	1	012	02	N	E9JLUY	55-55.8	P	.319	4.61	3.38	005	FRT	9
10															10
11	C01	84	1	012	02	N	AQQA6T	56-56.5	P	.005	2.00	1.01	001	N-A	11
12															12
13	C01	84	1	012	02	N	LSADHØ	56-58.26	CH	N--A	.461	00	025	FRT	13
14															14
15	C01	84	1	012	02	N	LSADHØ	58.9-59.7	CH	N--A	.461	00	010	FRT	15
16															16
17	C01	84	1	012	02	N	SBGSHØ	59.8-59.91	CH	N--A	.461	00	001	FRT	17
18															18
19	C01														19
20															20

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49289/7/75-200P DS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Slave of Nasenboon 9751e
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET 12 OF 18
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS 'Ø'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A
1 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	M 3 W H B H	6 Ø · 5 9 - 6 1 · Ø 1	P	N - - A	· 2 3 Ø	Ø Ø	Ø Ø	N - A
2											
3 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	L S A D H Ø	6 2 - 6 5 · 6	C H	N - - A	· 1 4 2	Ø Ø	Ø Ø	F R T
4											
5 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	M 3 W H B H	6 4 · 1 - 6 5 · 4	P 5 STEMS	· 7 1 B	3 · Ø 7	1 · 8 4	Ø Ø	F R T
6											
7 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	S B G S H Ø	6 6 · 9 4 - 6 9 · 3	C H	N - - A	· 9 2 3	Ø Ø	Ø Ø	F R T
8											
9 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	S B G S H Ø	7 Ø · 2 2 - 7 Ø · 2 3	C H	N - - A	· 1 4 2	Ø Ø	Ø Ø	F R T
10											
11 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	E 9 J L U Y	6 9 · 2 - 6 9 · 7 5	P	· 4 7 8	4 · 6 1	2 · 4 6	Ø Ø 5	F R T
12											
13 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	M 3 W H B H	7 1 · 6 - 7 2 · 1	P 5 STEMS	· 7 1 8	3 · Ø 7	2 · 4 6	Ø Ø 1	F R T
14											
15 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	S B G S H Ø	7 3 · 2 - 7 4 · 4 5	C H	N - - A	· 1 4 2	Ø Ø	Ø Ø 1	F R T
16											
17 C Ø 1	8 4 1 Ø 1 2	Ø 2	N	A Ø Q A 6 T	7 2 · 7 - 7 5 · 5 5	P 6 STEMS	· 9 5 7	3 · 3 8	1 · 8 4	Ø Ø 1	N - A
18											
19 C Ø 1											
20											

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49259/7/76—200PDS—L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Isle of Noreumbeer 9754
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE | SHEET 13 OF 18

CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1-2-3	4-5	6	7-8-9	10-11	12	13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34	35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51	52-53-54-55-56-57-58-59-60-61-62	63-64-65-66	67-68-69-70	71-72-73-74	75-76-77	78-79-80	
1	C01	84	1	012	02	N	EGJLUY	16.1-16.5	P	.319	4.92	3.07	005	FRT	1
2															2
3	C01	84	1	012	02	N	LSADH0	78.1-81.8	CH	N--A	.461	0000	005	FRT	3
4															4
5	C01	84	1	012	02	N	SBGSH0	81.87-82.1	CH	N--A	.461	0000	005	FRT	5
6															6
7	C01	84	1	012	02	N	LSADH0	82.78-83.9	CH	N--A	.461	0000	005	FRT	7
8															8
9	C01	84	1	012	02	N	LSADH0	85.45-86.01	CH	N--A	.461	0000	010	FRT	9
10															10
11	C01	84	1	012	02	N	SBGSH0	87.83-8.04	CH	N--A	1.07	0000	001	FRT	11
12															12
13	C01	84	1	012	02	N	LSADH0	88.4-89	CH	N--A	1.07	0000	001	FRT	13
14															14
15	C01	84	1	012	02	N	LSADH0	96.01-96.1	CH	N--A	.923	0000	001	FRT	15
16															16
17	C01	84	1	012	02	N	EGJLUY	81.1-81.227	P	.399	5.54	2.46	001	FRT	17
18															18
19	C01														19
20															20

49259/7/75-200P DS-L942

DATE	SHEET	OF
	14	68

CARD PUNCH PRINT Yes	CARD PUNCH PRINT No	VERIFY Yes	VERIFY No
( )	( )	( )	( )

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Slice of November 9754
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS 'Ø'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84	1	Ø12	Ø2	N	EQJLUY	81.1-81.Ø7	P	.239	2.46	1.23	ØC1	N-A	1
2															2
3	CØ1	84	1	Ø12	Ø2	N	AØQA6T	83.9-84.6	P	.239	2.77	1.54	ØC1	N-A	3
4															4
5	CØ1	84	1	Ø12	Ø2	N	EQJLUY	92-94.2	P	.478	1.69	4.CC	CCS	FRT	5
6															6
7	CØ1	84	1	Ø12	Ø2	N	AØQA6T	95.8-95.9	P	.Ø59	2.ØØ	1.23	ØC1	N-A	7
8															8
9	CØ1	84	1	Ø12	Ø2	N	ANNUAL GROUND COVER		T 9Ø% COVER	N--A	.5ØC	CC	CC	N-A	ELT 9
10															10
11	CØ1														11
12															12
13	CØ1														13
14															14
15	CØ1														15
16															16
17	CØ1														17
18															18
19	CØ1														19
20															20

Ø81



The view of the quadrat 02 looking North along side 3 to 2 (11/10/84).

Reserve 9754
Species at
Sample Site 02

Gramineae

Aulleina michellii
Briza maxima
Bromus rubens
Danthonia caespitosa
Lolium perenne
Neurachne alopecuroides
Rytidosperma airoides
Stenotaphrum secundatum
Tetrarrhena distichophylla
Tetrarrhena laevis
Tetrarrhena pungens
Schoenus benthamii
Schoenus nitens

Centrolepidaceae

Centrolepis aristata

Anthericaceae

Caesia parviflora
Thysanotus patersonii

Orchidaceae

Caladenia reticulata
Thelymitra crinita

Proteaceae

Grevillea paniculata

Orchidaceae

Santalum acuminatum

Proteaceae

Prosea glanduligera

Mimosaceae

Acacia acuminata
Acacia hemiteles

Euphorbiaceae

Poranthera microphyla

Myrtaceae

Eucalyptus loxophleba
Melaleuca acuminata
Melaleuca hamulosa

Haloragaceae

Gonocarpus nodulosus

Umbelliferae

Trachymene cyanopetala
Trachymene ornata
Trachymene pilosa

Primulaceae

Anagallis arvensis

Goodeniaceae
Selaea obovata
Campanulaceae
Wahlenbergia gracilenta
Goodeniaceae
Dampiera lavandulacea
Asteraceae
Arctotheca calendula
Brachyscome bellidioides
Helipterum lave
Hypochoeris glabra
Podolepis lessonii
Podotheca angustifolia
Podotheca gnaphaloides
Waitzia denominata
Waitzia suaeda
Waitzia citrina

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Pungelly, LeDuen, 2023
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS '0'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

49259/7/75-200P DS-L942

DATE	SHEET 40 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

	CODE	DATE YR MN DY			SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84	1	1-12	01	N	ANNUAL GROUND COVER		T 100% COVER	N--A	.500	00	N-A	FLT	1
2															2
3	C01	84	1	1-12	01	N	ECHIVY	9.65-36.75	P	1.72	27.79	5.4	005	FRT	3
4															4
5	C01	84	1	1-12	01	N	AOQA6T	3.85-4.35	P	.3984	.924	00	050	N-A	5
6															6
7	C01	84	1	1-12	01	N	AOQA6T	3.35-3.85	P	.6384	.924	00	050	N-A	7
8															8
9	C01	84	1	1-12	01	N	AOQA6T	12.55-13.35	P 2 STEMS	4.654	.924	00	005	N-A	9
10															10
11	C01	84	1	1-12	01	N	AOQA6T	17.25-18.25	P	.3194	.924	00	005	N-A	11
12															12
13	C01	84	1	1-12	01	N	CSNHH0	20.9-21.15	P	.7976	.154	.921	00	FRT	13
14															14
15	C01	84	1	1-12	01	N	AOQA6T	23.65-24.25	P	.3194	.924	00	050	N-A	15
16															16
17	C01	84	1	1-12	01	N	AOQA6T	37.65-42.25	P	.3195	.544	.616	00	N-A	17
18															18
19	C01														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

69

49259/7/76-200PDS-L942

DATE	SHEET 41	OF 118
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( )	No ( )

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Pingelly, The Queens, 2023
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS 'Ø'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80
1	CØ1	84	1	1-1-2	Ø1	N	AØQA:6T	41.65-44.Ø5	P 2 STEMS	.399	5.54	4.61	ØØØ	N-A
2														
3	CØ1	84	1	1-1-2	Ø1	N	E9JLUY	5Ø.85-55.45	P	1.82	12.9	6.Ø6	ØØ5	FRT
4														
5	CØ1	84	1	1-1-2	Ø1	N	AØQA:6T	62.95-63.95	P	.159	5.54	4.61	Ø5Ø	N-A
6														
7	CØ1	84	1	1-1-2	Ø1	N	AØQA:6T	63.85-64.85	P	.319	5.54	4.61	Ø5Ø	N-A
8														
9	CØ1	84	1	1-1-2	Ø1	N	E9JLUY	8Ø.15-81.45	P	.51Ø	8.93	6.37	Ø5Ø	FRT
10														
11	CØ1	84	1	1-1-2	Ø1	N	E9JLUY	84.4-9Ø.15	P	.957	15.39	.28	ØØ1	FRT
12														
13	CØ1	84	1	1-1-2	Ø1	N	AØQA:6T	92.95-94.95	P	.797	5.54	4.61	ØØ5	N-A
14														
15	CØ1													
16														
17	CØ1													
18														
19	CØ1													
20														

140

Reserve 2023
Species at
Sample Side 01 2 + 3 + 4.
lists the same
species present the same at each plot?

codes

Gramineae

Aira caryophyllea
Anisidida bonariensis
Avena fatua
Briza maxima
Bromus diandrus
Bromus hordaceus
Bromus rubens
Danthonia caespitosa
Ehrharta longiflora
Hordeum glaucum
Lolium perenne
Nassella delicatissima
Pentaschistis airoides
Polypogon monspeliensis
Stipa elegantissima
Stipa lemmonii
Vulpia myuros

Dianellaceae

Stypandra imbricata

Anthericaceae

Arthropodium callosum
Borya nitida
Tricoryne elatior

Casuarinaceae

Allocasuarina huegeliana

Polygonaceae

Muehlenbeckia adpressa

Amaranthaceae

Ptilotus manglesii

Mimosaceae

Acacia acuminata

Oxalidaceae

Oxalis corniculata

Stackhousiaceae

Stackhousia monogyna

Myrtaceae

Eucalyptus loxophleba

Primulaceae

Anagallis arvensis

Asteraceae

Cotula coronopifolia
Podolepis canescens
Sonchus oleraceus
Waitzia citrina

1964

Nature Reserve name and/or number	The Oven A 2023
Local Authority	Bingelly
Map	1:50 000 Wagerup 2332-I
Area (ha)	35
Nearest named place	16.7 kms W of Bingelly
Sample Sides Nos	01 02 03 04
Coordinates	01 : 32° 33" 117° 16" 02 : 32° 33" 117° 16" 03 : 32° 33" 117° 15" 04 : 32° 36" 117° 15"
Access	See attached map
Dominant Vegetation	York Gum Jam Woodland
Nos of Species	33
Vegetation Details	Attached
Physical Features	Deep alluvial red loams
Last Fire	more than 30 years
Protected from Livestock	Yes

Sampling Methods	20 m x 20 m Quadrat Species I/a, Perennial Cover by line intercept M. Rhodo.
Date sampled	October 1984
Next sampling	October 1987

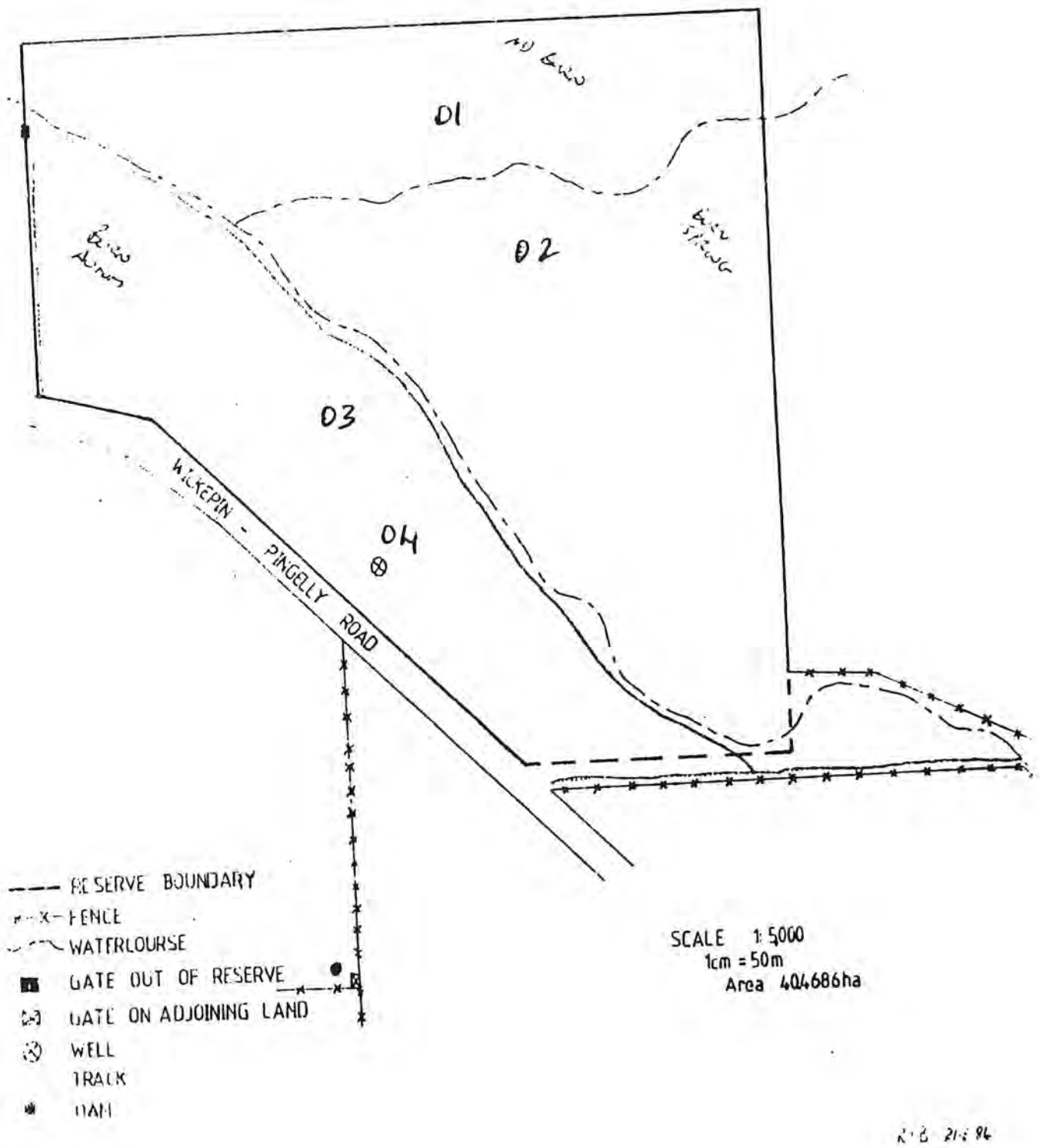

Petercarring Nature Reserve A20095
Petercarring Spring
Petercarring
Dalyerkaup Spring
P486
27175
1066.0356 ha
Tutanning Nature Reserve
A25555
2099.0139 ha
Conservation of Flora and Fauna
SHIRE
AVON
AVON RANGE
Mockerdungulling Nature Reserve
MOCKERDUNGULLING HILL
The Oven
Bungurra Soak
Ruin
TUTANNING
Jangering Waterhole
Calcoran Rockhole
Neamutin Spring
Trigonometrical Station Site
449 m
P841
14893
1407.4840 ha
Yellelin Spring
Toontoonling Spring
"Llanfair"
"Adavale"
BULLARING ROAD
PINGELLY ROAD
STEWART ROAD
SHADDOCK ROAD
FAIRHEAD ROAD
KEITHS ROAD
DIMUS ROAD
MARSHALL ROAD
CHOPPING ROAD
NEAMUTIN ROAD
LADYMANS ROAD
POPANYINNING ROAD
MACKENZIES ROAD
ENGLISH ROAD
STRATHERNE ROAD
Sand Plain
Creek
Brook
Gully

197

NATURE RESERVE † 2023

FIRE BREAKS PLOUGHED 28/8/86.
3 hours. including pushing in of
break along south of creek
carried out by R.I.B.

N



SCALE 1:5000
1cm = 50m
Area 404686ha

R.I.B. 21.8.86

49289/7/75-200PDS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER The Ovens, Pingelly, 2023
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE | SHEET 37 OF 48

CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLD. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C01	84	1	11 2	02	N	ANNUAL GROUND COVER		T 25% COVER	N--A	.500	00	N-A	FLT	1
2															2
3	C01	84	1	11 2	02	N	A00A6T	2.45-3.05	P 2 STEMS	.282	2.76	.923	005	N-A	3
4															4
5	C01	84	1	11 2	02	N	A00A6T	2.85-3.25	P 3 STEMS	.138	2.76	.923	005	N-A	5
6															6
7	C01	84	1	11 2	02	N	A00A6T	16.25-16.95	P	N--A	6.35	4.75	002	N-A	7
8															8
9	C01	84	1	11 2	02	N	A00A6T	19.95-19.952	P	N--A	1.23	.301	001	N-A	9
10															10
11	C01	84	1	11 2	02	N	A00A6T	21.85-30.55	P	1.194	.00	3.69	002	N-A	11
12															12
13	C01														13
14															14
15	C01														15
16															16
17	C01														17
18															18
19	C01														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

48

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Pengelly, The Overs, 2023
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS "Ø"; LETTER "I" AS "I"; LETTER "Z" AS "Z".)

49259/7/78-200P DS-L942

DATE	SHEET 38 OF 68
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84 1 1 1 2	Ø2	N	AØØA6T	31·75-35·15	P	·638	4·ØØ	3·6	9	ØØ5	N-A
2													
3	CØ1	84 1 1 1 2	Ø2	N	CBNHHØ	39·Ø5-39·15	P	·378	4·ØØ	1·8	4	Ø5Ø	N-A
4													
5	CØ1	84 1 1 1 2	Ø2	N	E9ZLUY	35·85-4Ø·75	P	1·15	14·8	9·3	9	Ø1Ø	FRT
6													
7	CØ1	84 1 1 1 2	Ø2	N	AØØA6T	5Ø·55-51·75	P	·398	4·92	3·6	9	ØØ2	N-A
8													
9	CØ1	84 1 1 1 2	Ø2	N	AØØA6T	56·15-56·9	P	·239	3·38	2·7	6	ØØ2	N-A
10													
11	CØ1	84 1 1 1 2	Ø2	N	E9ZLUY	59·Ø5-64·15	P	1·96	8·47	2·5	8	ØØ5	FRT
12													
13	CØ1	84 1 1 1 2	Ø2	N	AØØA6T	63·55-64·95	P	·398	5·53	4·6	1	ØØ5	N-A
14													
15	CØ1	84 1 1 1 2	Ø2	N	CBNHHØ	68·3-7Ø·45	P	·319	4·61	1·8	4	Ø5Ø	N-A
16													
17	CØ1	84 1 1 1 2	Ø2	N	E9ZLUY	73·95-76·85	P	1·96	16·56	6·2	6	ØØ5	FRT
18													
19	CØ1												
20													

199

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Pungelly, The Queens, 2023
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

49259/7/78-200P DS-LB42

DATE

SHEET 39 OF 48

CARD PUNCH PRINT Yes ( ) No ( )

VERIFY Yes ( ) No ( )

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C Ø 1	8 4 1 1 1 2	Ø 2	N	A Ø Q A 6 T	8 Ø · 8 5 - 8 2 · 2 5	P	· 6 3 8	4 · 6 7	3 · 6 9	Ø 1 5	N · A	1
2													2
3	C Ø 1	8 4 1 1 1 2	Ø 2	N	C 9 J L U Y	8 1 · 5 - 8 2 · 5	P	1 · 1 3	1 4 · 9	7 · 7 2	Ø 1 5	F R T	3
4													4
5	C Ø 1	8 4 1 1 1 2	Ø 2	N	C 8 N H H Ø	9 5 · 9 5 - 9 6 · 9	P	· 3 9 8	4 · Ø Ø	1 · 8 4	Ø 1 5	F R T	5
6													6
7	C Ø 1												7
8													8
9	C Ø 1												9
10													10
11	C Ø 1												11
12													12
13	C Ø 1												13
14													14
15	C Ø 1												15
16													16
17	C Ø 1												17
18													18
19	C Ø 1												19
20													20
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

200

Reserve 2023
Species at
Sample Side 02

Gramineae

Aira caryophyllea
Anisida capillaris
Avena fatua
Briza maxima
Bromus diandrus
Bromus hordaceus
Bromus rubens
Danthonia caespitosa
Ehrharta longiflora
Hordeum glaucum
Lolium perenne
Nassella lolaceoides
Pentaschistis airoides
Polypogon monspeliensis
Stipa elegantissima
Stipa lepidotia
Vulpia myuros

Dianellaceae

Stypandra imbricata

Anthericaceae

Arthropodium callifes
Borya nitida
Tricoryne elatior

Casuarinaceae
Allocasuarina huegeliana
Polygonaceae
Muehlenbeckia adpressa
Amaranthaceae
Ptilotus manglesii
Mimosaceae
Acacia acuminata
Oxalidaceae
Oxalis corniculata
Stackhousiaceae
Stackhousia monogyna
Myrtaceae
Eucalyptus loxophleba
Primulaceae
Anagallis arvensis

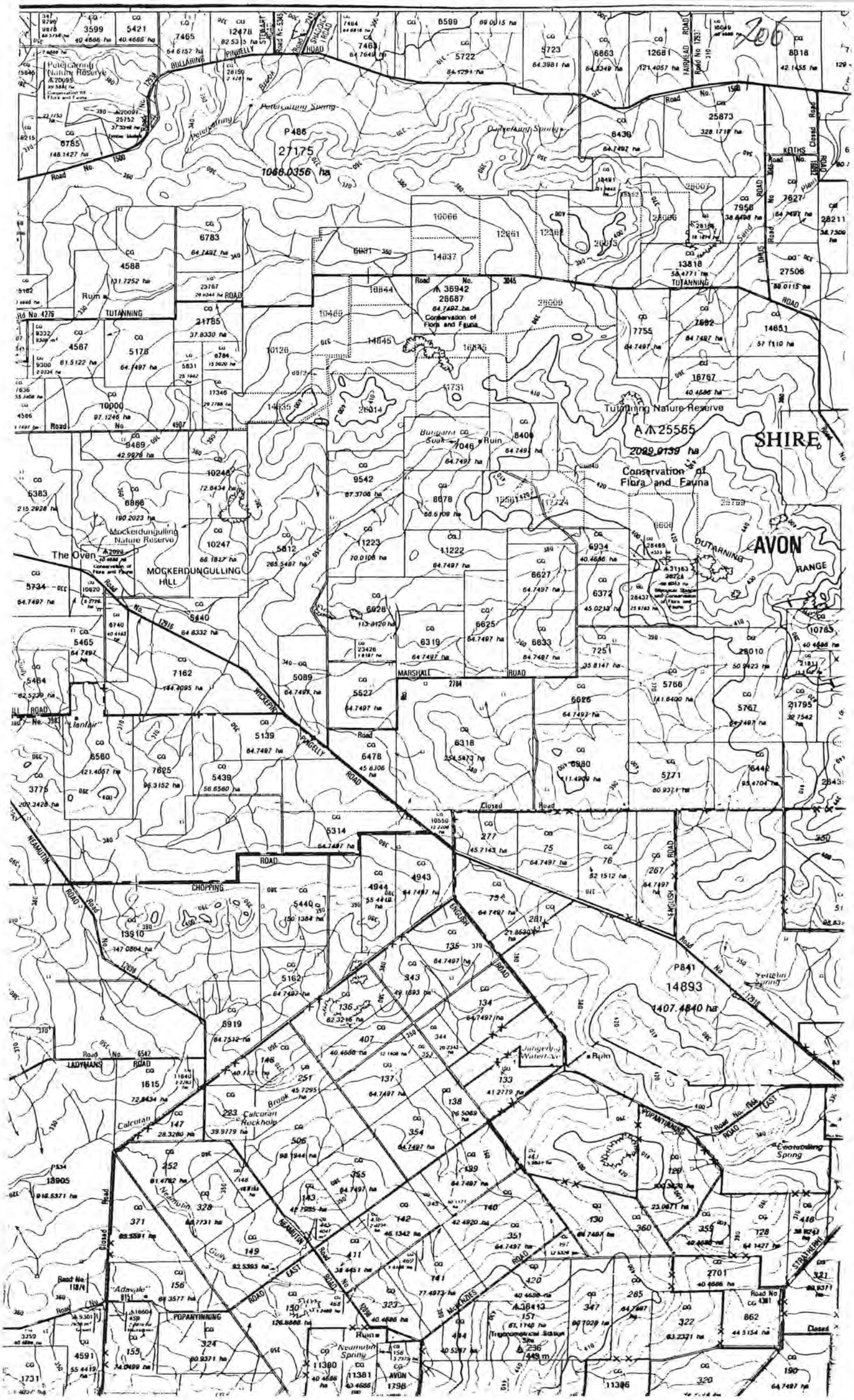
Asteraceae

Cotula coronopifolia
Podolepis canescens
Sonchus oleraceus
Waitzia citrina

2014

Nature Reserve name and/or number	The Oven A 2023
Local Authority	Bingelly
Map	1:50 000 Wayerling 2332-1
Area (ha)	35
Nearest named place	16.7 kms W of Bingelly
Sample Sides Nos	01 02 03 04
Coordinates	01 : 32° 33" 117° 16" 02 : 32° 33" 117° 16" 03 : 32° 33" 117° 15" 04 : 32° 36" 117° 15"
Recess	See attached map
Dominant Vegetation	York Gum Jam Woodland
Nos of Species	33
Vegetation Details	Attached
Physical Features	Deep alluvial red loams
Last Fire	more than 30 years
Produced from Livestock	Yes

Sampling Methods	20 m x 20 m Quadrat Species I/a, Perennial Cover by line intercept M. Rhodo.
Date sampled	October 1984
Next sampling	October 1987

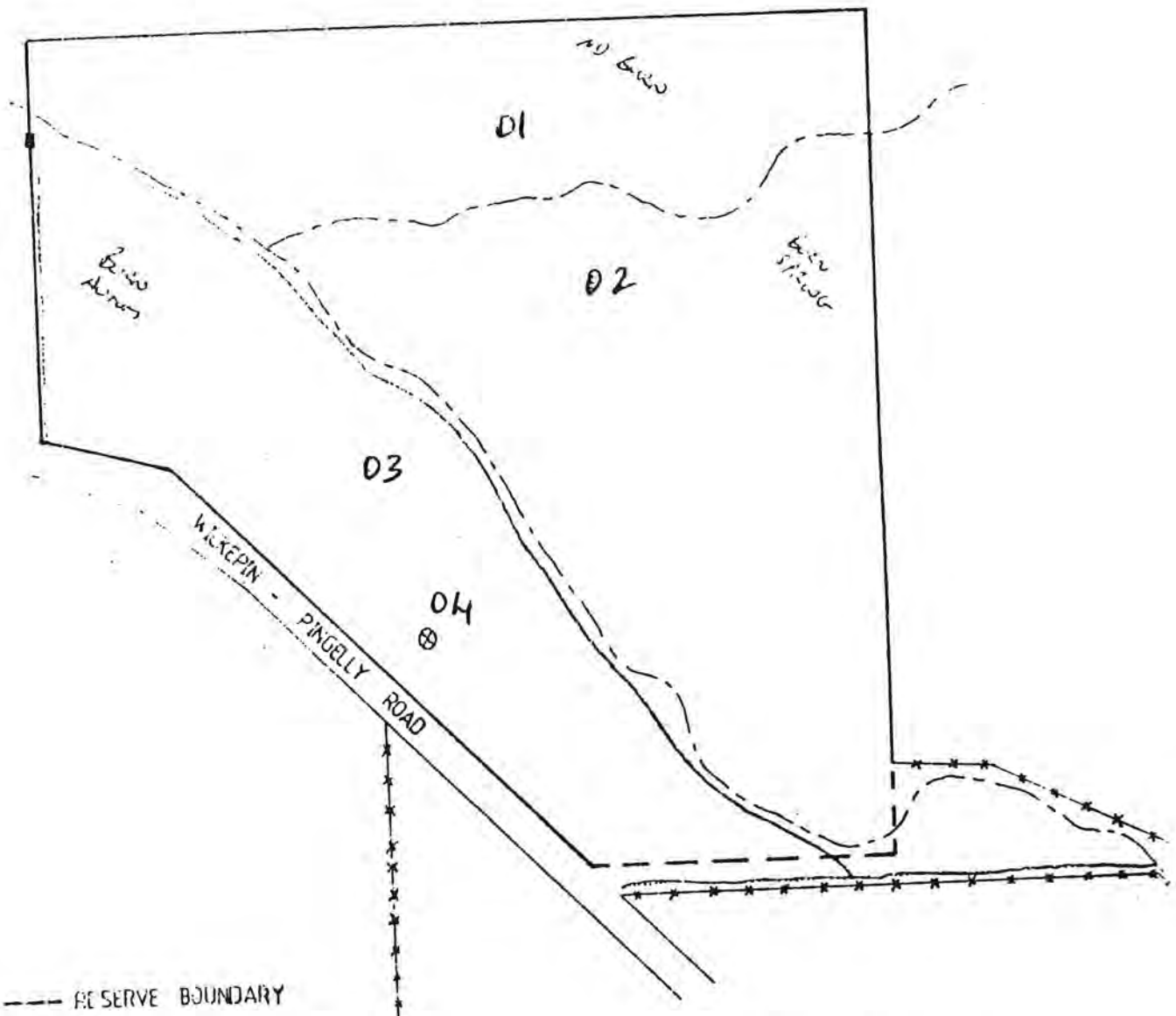

Peter Carong (Wildlife Reserve) A20095
Peter Carong Spring
P486
27175
1066.0356 ha
Outer Laang Spring
Rum
TUTANNING
Tutanning Nature Reserve
A25565
2099.0139 ha
Conservation of Flora and Fauna
SHIRE
AVON
RANGE
DUTTANNING
Mockerdungulling Nature Reserve
The Oven
MOCKERDUNGULLING HILL
Burgarra Soak
Ruin
Yellagin Spring
P841
14893
1407.4840 ha
Calcoran Rockhole
Calcoran Brook
Neamuthin Spring
Coolabaring Spring
Jangeyring Waterhole
"Planfair"
"Adawyle"
POPANYINNING
NEAMUTHIN
WICKEPIN
SPANGLY
CHOPPING
LADYMANS
MARSHALL
ENGLISH
DAVIS
KATHS
STEWART
BULLARING
PINGELLY
SHALLOCK
FAIRHEAD
Road No 4276
Road No 4907
Road No 3981
Road No 6542
Road No 1318
Road No 1716
Road No 1798
Road No 1359
Road No 1500
Road No 1345
Road No 1753
Road No 1318
Road No 1318
Road No 1318

NATURE RESERVE 1 2023

207

FIRE BREAKS PLOUGHED 28/8/84.
3 hours. including pushing in of
break along south of creek
carried out by R.D.

N



RESERVE BOUNDARY
FENCE
WATERCOURSE
GATE OUT OF RESERVE
GATE ON ADJOINING LAND
WELL
TRACK
DAM

SCALE 1:5000
1cm = 50m
Area 404686ha

21.8.96

49259/7/76-200PDS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Pungelly, The Dens, 2023
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE | SHEET 42 OF 48

CARD PUNCH PRINT Yes [ ] No [ ] | VERIFY Yes [ ] No [ ]

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A
1	C01	84 1 1	203	N	ANNUAL GROUND COVER		T 100% COVE	N--A	.500	0000	N-A	FLT
2												
3	C01	84 1 1	203	N	E9JLUY	3.45-11.65	P	1.35	12.85	5.2	025	FRT
4												
5	C01	84 1 1	203	N	E9JLUY	11.65-29.15	P	.871	12.85	5.2	025	FRT
6												
7	C01	84 1 1	203	N	E9JLUY	0-3.45	P	.638	12.85	5.2	025	FRT
8												
9	C01	84 1 1	203	N	A00A6T	10.85-12.95	P	.558	12.85	5.2	015	N-A
10												
11	C01	84 1 1	203	N	A00A6T	33.35-34.25	P	.319	5.534	6.1	015	N-A
12												
13	C01	84 1 1	203	N	A00A6T	33.75-34.25	P	.319	5.534	6.1	015	N-A
14												
15	C01	84 1 1	203	N	E9JLUY	51.15-57.85	P	.871	19.0	5.2	015	FRT
16												
17	C01											
18												
19	C01											
20												

209

49259/7/75-200P DS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Pingelly 2
The Grove, 2023
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE	SHEET 43 OF 68
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS '0'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	C Ø 1	8 4	1	1 1 2	Ø 3	N	A Ø Ø A 6 T	6 5 . 4 5 - 6 7 . 2 5	P	. 2 7 9	4 . 6 1	3 . 6 9	Ø 5 Ø	N - A	1
2															2
3	C Ø 1	8 4	1	1 1 2	Ø 3	N	A Ø Ø A 6 T	7 6 . 8 5 - 8 Ø . 1 5	P	. 5 5 8	5 . 5 4	4 . 6 1	Ø 5 Ø	N - A	3
4															4
5	C Ø 1	8 4	1	1 1 2	Ø 3	N	E 9 J L U Y	9 1 . 1 7 - 9 3 . 1 5	P	. 4 7 8	1 7 . 5	9 . 1 3	Ø 5 Ø	R T	5
6															6
7	C Ø 1	8 4	1	1 1 2	Ø 3	N	E 9 J L U Y	6 9 . 1 - 6 9 . 6	P	. 6 3 8	1 7 . 5	9 . 1 3	Ø 5 Ø	F R T	7
8															8
9	C Ø 1														9
10															10
11	C Ø 1														11
12															12
13	C Ø 1														13
14															14
15	C Ø 1														15
16															16
17	C Ø 1														17
18															18
19	C Ø 1														19
20															20
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

Reserve 2023
Species at
Sample Side 03

Gramineae

Aira caryophyllea
Aristida congesta
Avena fatua
Briza maxima
Bromus diandrus
Bromus hordaceus
Bromus rubens
Danthonia caespitosa
Ehrharta longiflora
Hordeum glaucum
Lolium perenne
Nassella lolseuroides
Pentaschistis airoides
Polypogon monspeliensis
Stipa elegantissima
Stipa lepidotia
Vulpia myuros

Dianellaceae

Stypandra imbricata

Anthericaceae

Arthropodium callifes
Borya nitida
Tricoryne elatior

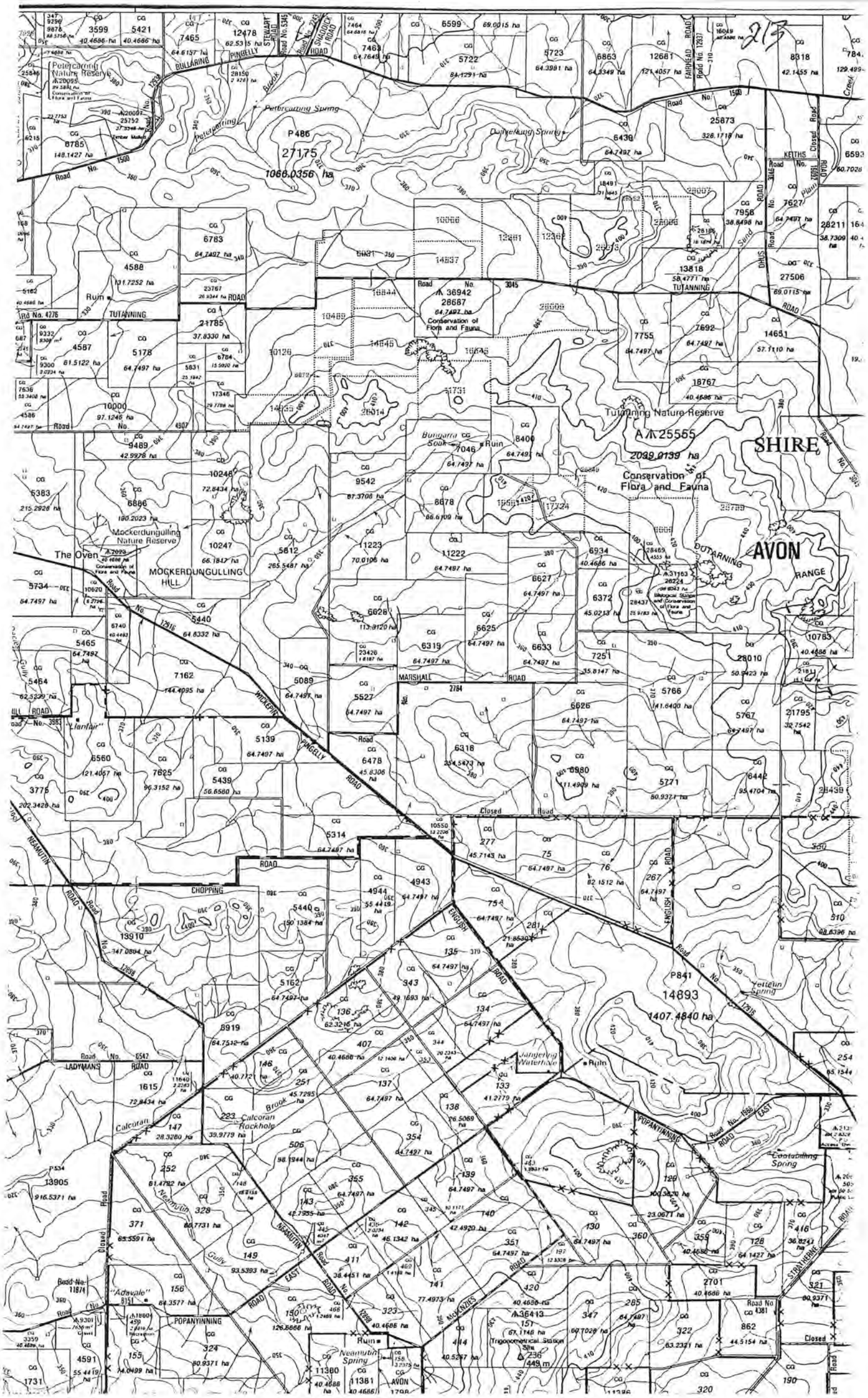
Casuarinaceae
Allocasuarina huegeliana
Polygonaceae
Muehlenbeckia adpressa
Amaranthaceae
Ptilotus manglesii
Mimosaceae
Acacia acuminata
Oxalidaceae
Oxalis corniculata
Stackhousiaceae
Stackhousia monogyna
Myrtaceae
Eucalyptus loxophleba
Primulaceae
Anagallis arvensis

Asteraceae

Cotula coronopifolia
Podolepis canescens
Sonchus oleraceus
Waitzia citrina

Nature Reserve name and/or number	The Oven A 2023
Local Authority	Pingelly
Map	1:50 000 Wagerling 2332-1
Area (ha)	35
Nearest named place	16.7 kms W of Pingelly
Sample Sides Nos	01 02 03 04
Coordinates	01 : 32° 33" 117° 16" 02 : 32° 33" 117° 16" 03 : 32° 33" 117° 15" 04 : 32° 36" 117° 15"
Access	See attached map
Dominant Vegetation	York Gum Jam Woodland
Nos of Species	33
Vegetation Details	Attached
Physical Features	Deep alluvial red loams
Last Fire	more than 30 years
Protected from Livestock	Yes

Sampling Methods	20m x 20m Quadrat Species I/a ; Perennial Cover by line intercept. Photo.
Date sampled	October 1984
Next sampling	October 1987

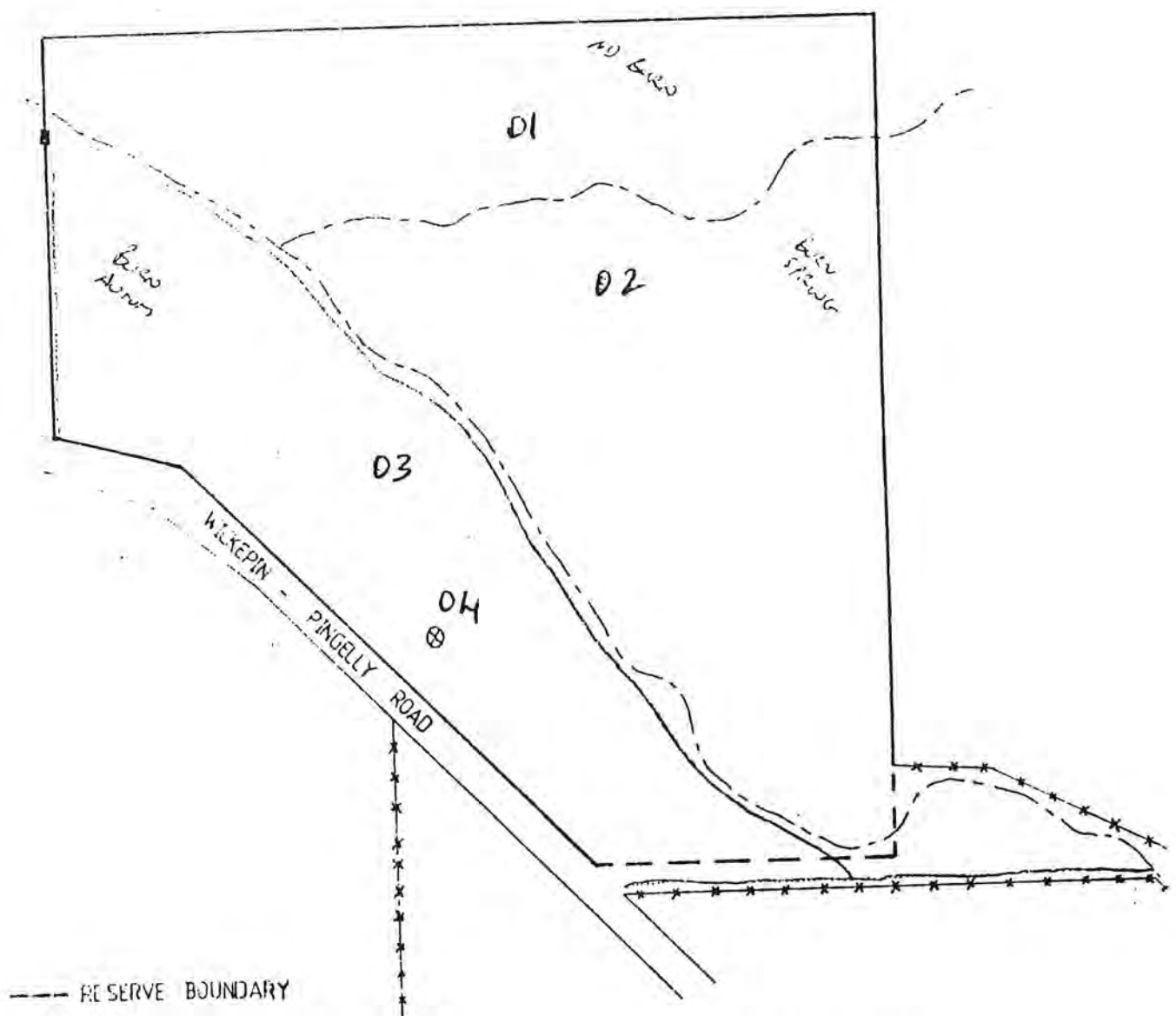

Petercarring Nature Reserve
A20095
Petercarring Spring
Petercarring
Quilkerking Spring
P486
27175
1066.0356 ha
BULLARING
PINGELLY
STEWART ROAD
SHADDICK ROAD
FAIRHEAD ROAD
KEITHS ROAD
Road No. 1500
Road No. 1515
Road No. 3045
Road No. 4276
Road No. 4307
Road No. 5345
Road No. 7238
Road No. 12937
Road No. 12916
Road No. 3981
Road No. 6547
Road No. 11874
Road No. 1598
Road No. 4381
Closed Road
Creek
Plain
Ruin
TUTANNING
A 36942
28687
64.7497 ha
Conservation of Flora and Fauna
Tutanning Nature Reserve
A 25555
2099.0139 ha
Conservation of Flora and Fauna
SHIRE
AVON
RANGE
DUTARNING
Mockerdungulling Nature Reserve
A 2093
The Oven
MOCKERDUNGULLING HILL
MARSHALL ROAD
WICKEPIN PINGELLY ROAD
NEAMUTIN ROAD
CHOPPING ROAD
LADYMANS ROAD
ENGLISH ROAD
POPANYINNING EAST ROAD
McKENZIES ROAD
STRATHERNE ROAD
Bungarra Soak
Ruin
Calcoran Brook
Calcoran Rockhole
Gully
Neamutin Spring
Jangering Waterhole
Tootabbing Spring
"Adavale"
"Llanfair"
A 31763
28224
Biological Survey and Conservation of Flora and Fauna
A 36413
151
67.1146 ha
Trigonometrical Station Site
Δ 236
449 m
P841
14893
1407.4840 ha
Yetteun Spring
P534
13905
916.5371 ha
13910
747.0804 ha
1731
64.7497 ha
2184
64.7497 ha
11360
40.4686 ha
11381
40.4686 ha
AVON
1798

NATURE RESERVE 1 2023

214

FIRE BREAKS PLOUGHED 28/8/86.
3 hours. including pushing in of break along south of creek
carried out by R.L.B.

N



RESERVE BOUNDARY
FENCE
WATERCOURSE
GATE OUT OF RESERVE
GATE ON ADJOINING LAND
WELL
TRACK
DAM

SCALE 1:5000
1cm = 50m
Area 404686ha

R.L.B. 21.8.86

Reserve 2023
Species at
Sample Side 04

Gramineae

Aira caryophyllea
Anisidida ephemera
Avena fatua
Briza maxima
Bromus diandrus
Bromus hordaceus
Bromus rubens
Danthonia caespitosa
Ehrharta longiflora
Hordeum glaucum
Lolium perenne
Neurachne alopecuroides
Pentaschistis airoides
Polypogon monspeliensis
Stipa elegantissima
Stipa lemmonii
Vulpia myuros

Dianellaceae

Stypandra imbricata

Anthericaceae

Arthropodium capillipes
Borya nitida
Tricoryne elatior

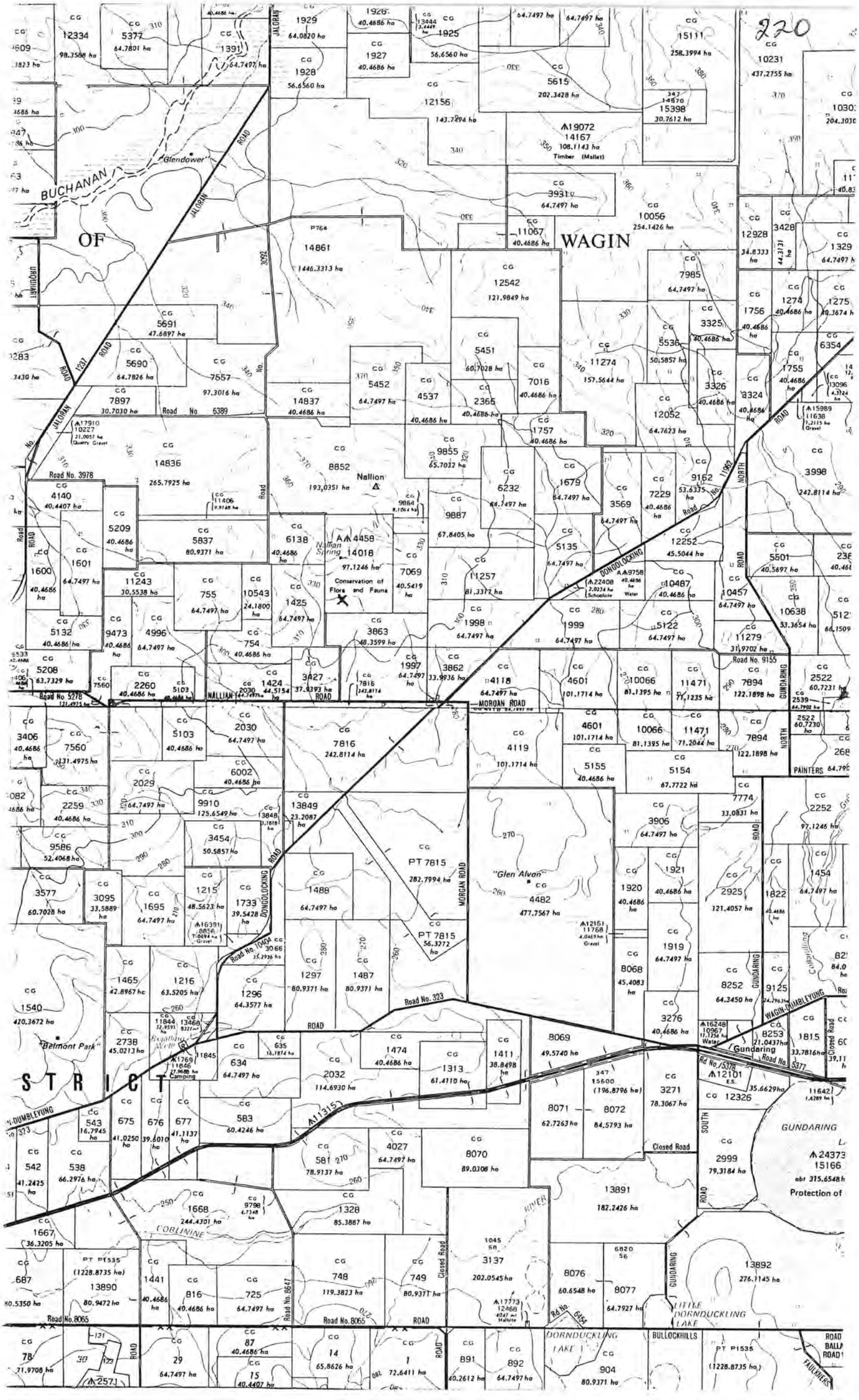
Casuarinaceae
Allocasuarina huegeliana
Polygonaceae
Muehlenbeckia adpressa
Amaranthaceae
Ptilotus manglesii
Mimosaceae
Acacia acuminata
Oxalidaceae
Oxalis corniculata
Stackhousiaceae
Stackhousia monogyna
Myrtaceae
Eucalyptus loxophleba
Primulaceae
Anagallis arvensis

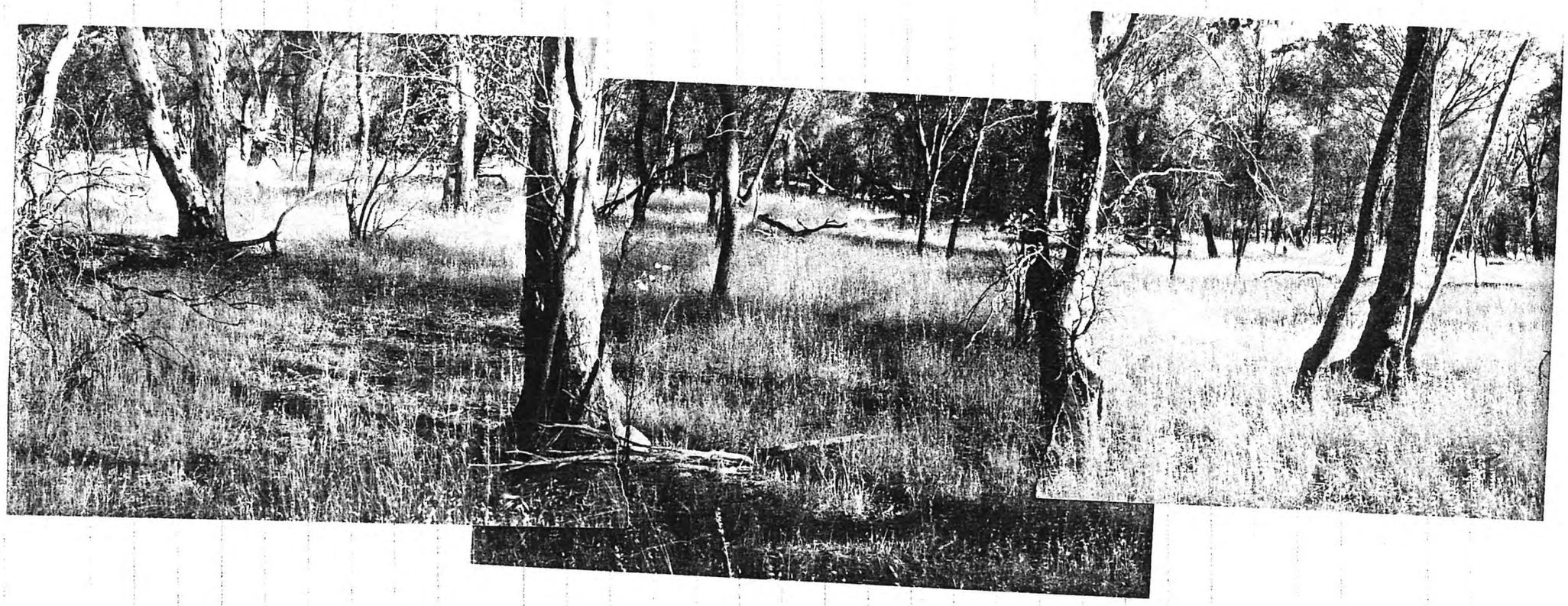
Asteraceae

Cotula coronopifolia
Podolepis canescens
Sonchus oleraceus
Waitzia citrina

Reserve name and/or number	Nallion Springs A 44458
Local Authority	Wagin
Map	1:50 000 2331-1 Piesseville
Area (ha)	97
Nearest named place	11 kms NE of Wagin
Sample Site	01
Coordinates	33° 14" 117° 26"
Access	See attached map
Dominant Vegetation	York Gum, Wandoo, Jam Woodland.
Nos of Species	22
Vegetation Details	Attached
Physical Features	Sandy Red loam below granite
Last Fire	More than 30 years
Proceeded from Livestock	Yes

Sampling Methods	20 m × 20 m Quadrat Species I/a, Perennial Cover by line intercept. Photo
Date Sampled	November 1984
Next Sampling	October 1987


220
BUCHANAN
"Glendower"
JALORAN
ROAD
OF
WAGIN
Timber (Mallet)
Road No. 3978
Nallion
Conservation of Flora and Fauna
DONGOLOCKING
Road No. 6389
Road No. 5278
NALLIAN
MORGAN ROAD
Road No. 10404
"Glen Alvan"
"Belmont Park"
Road No. 323
WAGIN-DUMBLEYUNG
Gundaring
Road No. 5377
Rd No. 5376
Closed Road
GUNDARING
NORTH
SOUTH
Road No. 9155
Road No. 8065
COBLININE
RIVER
DORNDUCKLING LAKE
LITTLE DORNDUCKLING LAKE
BULLOCKHILLS
PAINTERS
FAULKNERS
Protection of



The view of quadrat 01, looking East (13/11/85)

49259/7/75-200P DS-L942

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Line of Wagon 2
Nellion Springs
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

DATE | SHEET 32 OF 48

CARD PUNCH PRINT Yes ( ) No ( ) | VERIFY Yes ( ) No ( )

ONLY TYPE IN DATA CODED ON SHADED LINES

(WRITE ZERO AS 'Ø'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84	1	1Ø7	Ø1	N	ANNUAL GROUND COVER		T 1ØØ% COVE	N--A	.5ØØ	ØØ	ØØ	N-A	FLT 1
2															2
3	CØ1	84	1	1Ø7	Ø1	N	ERILUY	8.Ø5-1Ø.75	P	.93Ø	15.93	6.11	ØØS	FLT	3
4															4
5	CØ1	84	1	1Ø7	Ø1	N	AØQA6T	11.3-11.31	P	.1ØØ	3.Ø7	1.23	1ØØ	N-A	5
6															6
7	CØ1	84	1	1Ø7	Ø1	N	AØQA6T	12.8-14.7	P	.27Ø	3.69	1.54	Ø25	N-A	7
8															8
9	CØ1	84	1	1Ø7	Ø1	N	AØQA6T	18.3-18.4	P	.Ø39	2.46	1.31	Ø25	N-A	9
10															10
11	CØ1	84	1	1Ø7	Ø1	N	AØQA6T	18.4-18.5	P	N--A	2.15	.923	Ø25	N-A	11
12															12
13	CØ1	84	1	1Ø7	Ø1	N	ERILUY	32.2-35.8	P	1.35	12.9	9.44	ØSØ	FLT	13
14															14
15	CØ1	84	1	1Ø7	Ø1	N	CBNHHØ	32.1-38.7	P	.83Ø	8.22	3.Ø7	Ø15	N-A	15
16															16
17	CØ1	84	1	1Ø7	Ø1	N	AØQA6T	45.3-49.7	P	.65Ø	1Ø.9	6.62	Ø6Ø	N-A	17
18															18
19	CØ1	84	1	1Ø7	Ø1	N	ERILUY	88-89.3	P	.3ØØ	3.Ø7	1.84	Ø6Ø	N-A	19
20	CØ1	84	1	1Ø7	Ø1	N	ERILUY	88.4-89.5	P	.29Ø	12.9	8.41	Ø7Ø	N-A	20
	1 1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

222

Reserve Nallion St.
No. Species list
at Sample Site 01

Polypodiaceae

Cheilanthes tenuifolia

Gramineae

Avena fatua
Briza maxima
Bromus rubens
Ehrarta longiflora
Neurachne alopecuroides
Pentaschistis airoides
Stipa elegantissima
Stipa tenuifolia

Anthericaceae

Borya nitida

Casuarinaceae

Allocasuarina huegeliana

Amaranthaceae

Ptilotus manglesii
Ptilotus polystachyus

Mimosaceae

Acacia acuminata

Papilionaceae
Trifolium cernuum
Myrtaceae
Eucalyptus bosistoana
Eucalyptus wandoo
Primulaceae
Anagallis arvensis
Asteraceae
Helipterum lagve
Lagenifera huegellii
Ixiolaena anthemoides
Waitzia acuminata

49259/7/78-200P DS-L942

DATE	SHEET 33 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

80-COLUMN CARD PUNCH LAYOUT

FIELD IDENTIFICATION

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Line of Wagon Nellie Springs
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

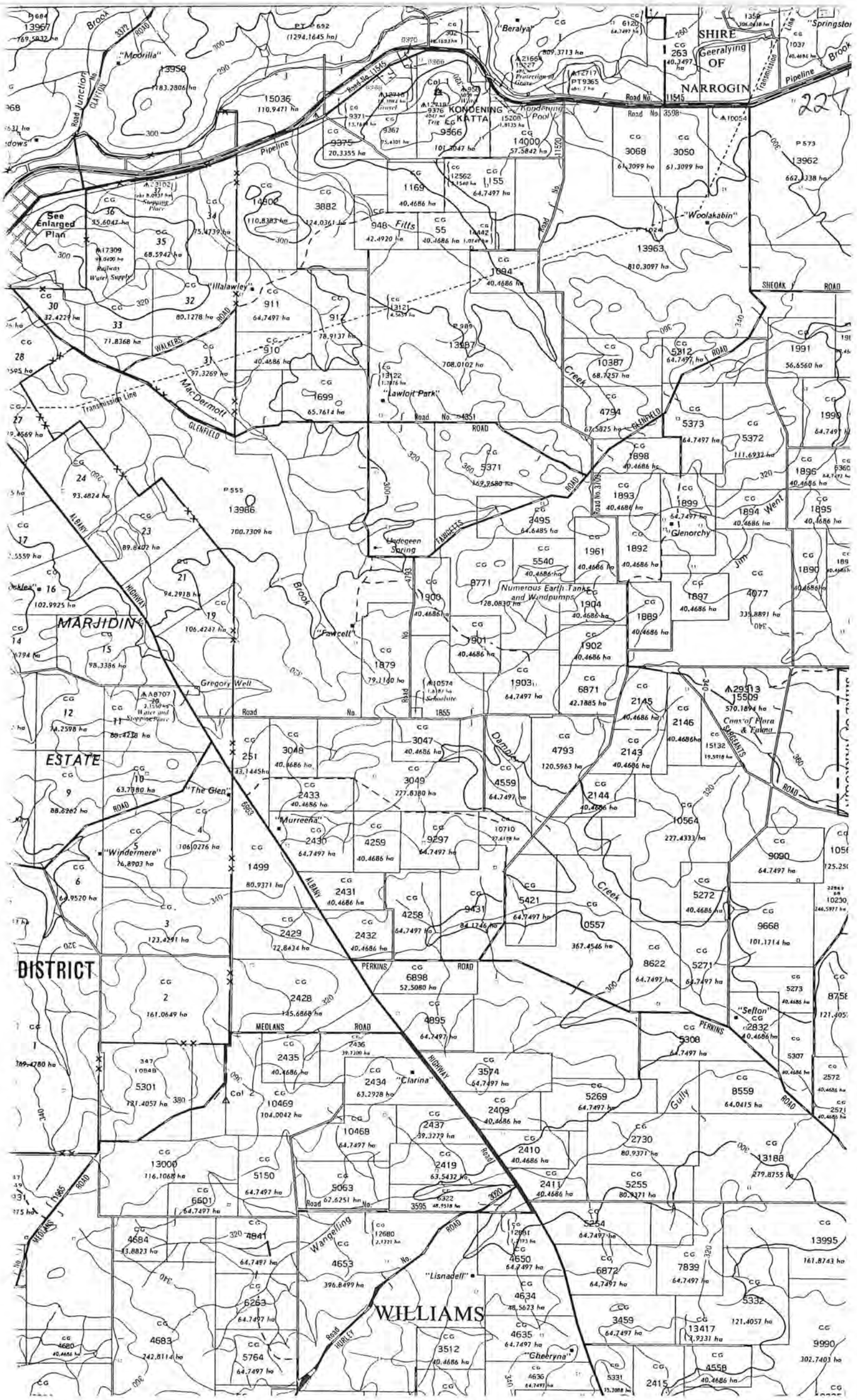
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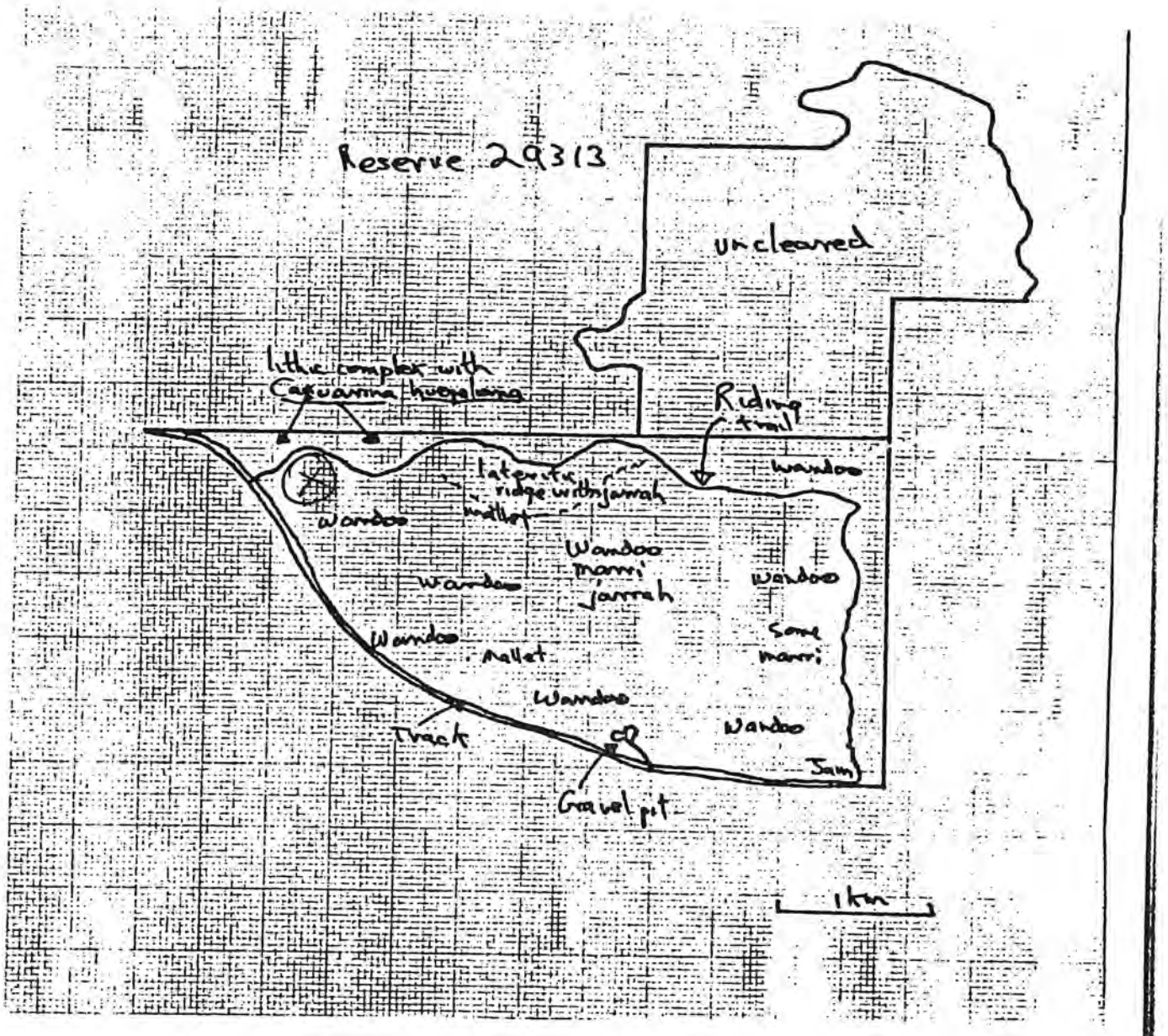
(WRITE ZERO AS "Ø"; LETTER "1" AS "I"; LETTER "Z" AS "Z".)

	CODE	DATE YR	MN	DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84	1	1Ø1	Ø1	N	EQJLUY	89.9-92.8	P	.42Ø	9.49	6.14Ø	Ø.6Ø	N-A	1
2															2
3	CØ1	84	1	1Ø1	Ø1	N	CBNHHØ	5Ø.7-59.5	P	.112	11.9	6.Ø3	Ø1Ø	N-A	3
4															4
5	CØ1	84	1	1Ø1	Ø1	N	AØQA6T	59.8-66.3	P	.64Ø	12.85	8.89	Ø4Ø	N-A	5
6															6
7	CØ1	84	1	1Ø1	Ø1	N	AØQA6T	66.5-66.55	P	N--A	1.54	.3Ø7	Ø5Ø	N-A	7
8															8
9	CØ1	84	1	1Ø1	Ø1	N	AØQA6T	71.6-71.7	P	N--A	1.54	.3Ø7	Ø5Ø	N-A	9
10															10
11	CØ1	84	1	1Ø1	Ø1	N	AØQA6T	76.2-77	P	.31Ø	9.74	8.96	Ø5Ø	N-A	11
12															12
13	CØ1	84	1	1Ø1	Ø1	N	EQJLUY	77.1-78.4	P	.15Ø	7.454	.Ø1	Ø5Ø	N-A	13
14															14
15	CØ1	84	1	1Ø1	Ø1	N	EQJLUY	75.9-82.9	P	.128	21.2	1Ø.7	Ø5Ø	FRT	15
16															16
17	CØ1	84	1	1Ø1	Ø1	N	CBNHHØ	82-87.1	P	.83Ø	9.24	3.91	Ø4Ø	N-A	17
18															18
19	CØ1	84	1	1Ø1	Ø1	N	AØQA6T	84.4-85.2	P	N--A	1.54	.Ø13	Ø25	N-A	19
20															20

825

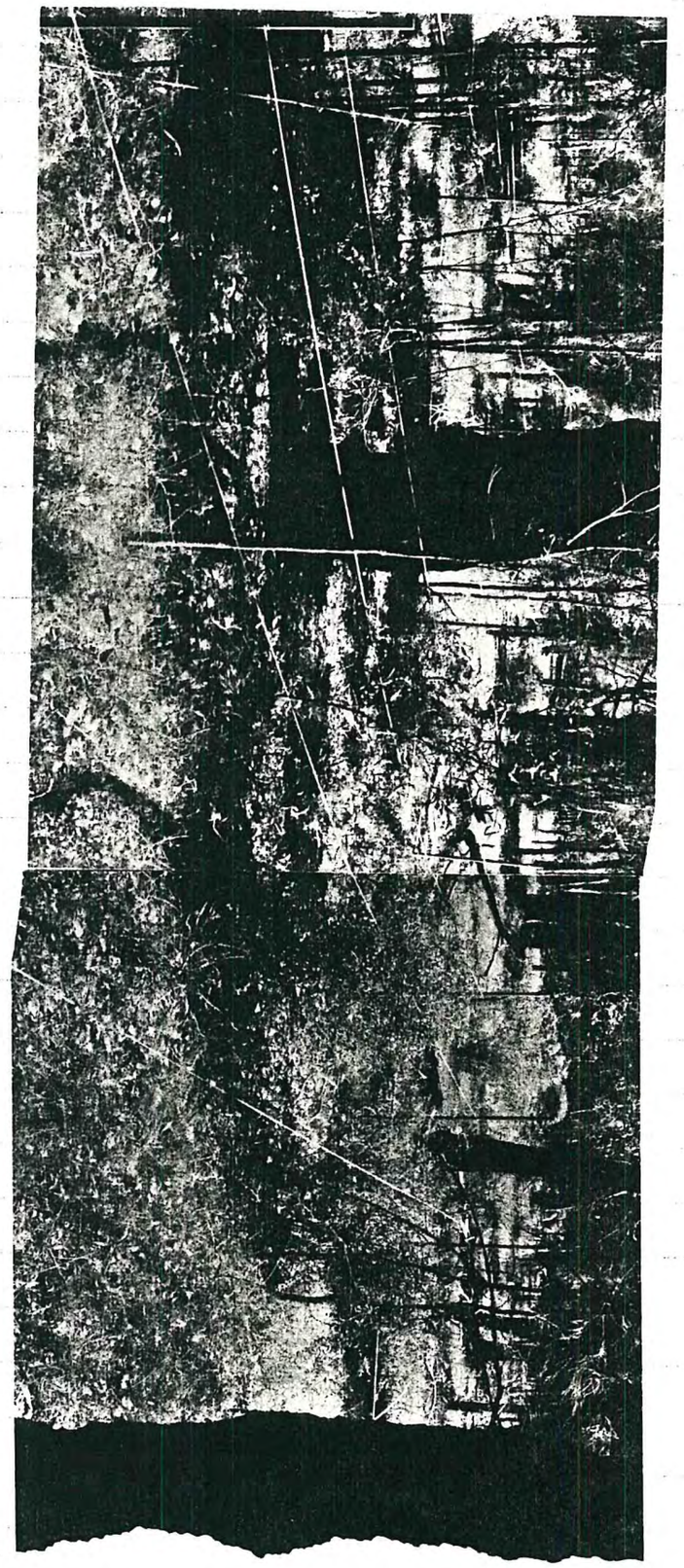
Nature Reserve name and/or number	29313
Local Authority	Williams
Map	Litho 385/80
Area (ha)	570
Nearest named place	22 kms S/W of Narrogin 21 kms N/W of Highbury
Sample site	01
Coordinates	33°4", 116°59"
Access	See Attached Map
Dominant Vegetation	Mixed Mosaic, Jam, Casuarina Woodland
Nos Species	35
Vegetation Details	Attached
Physical Features	Lateritic sandy loams downslope
Land Use	more than 20 years
Preceded from Livestock	Yes
Sampling methods	20m x 20m Quadrat & Species List, Perennial Cover, Cycline intercept Photo
Date Sampled	October 1986
Next Sampling	October 1987

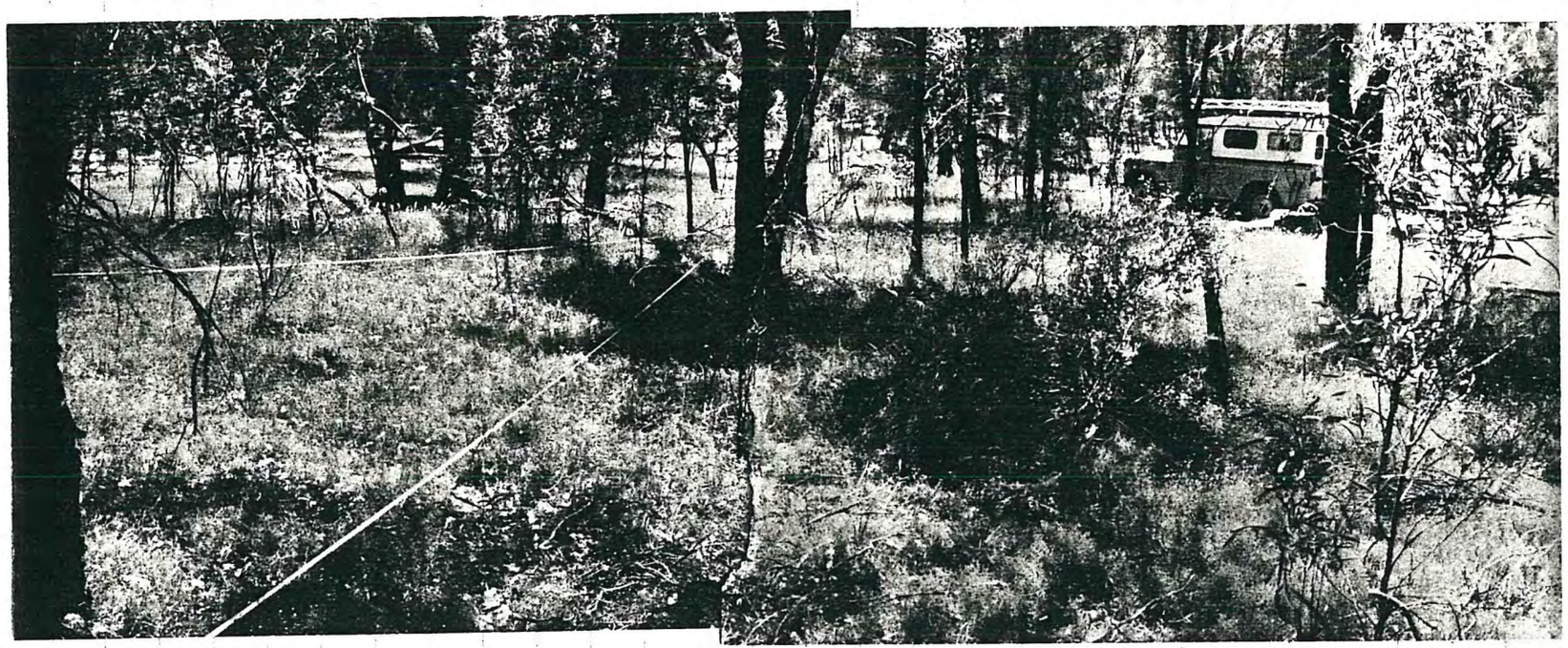

MARJIDIN
ESTATE
DISTRICT
WILLIAMS
KONDENING KATTA
SHIRE OF NARROGIN
"Moorilla"
"Beralya"
"Springston"
"Illalawley"
"Lawloit Park"
"Woolakabin"
"Glenorchy"
"Fawcell"
"The Glen"
"Windermere"
"Murreena"
"Clarina"
"Lisnadell"
"Cheeryna"
"Sefton"
"Udegeen Spring"
Numerous Earth Tanks and Windpumps
See Enlarged Plan
Fitts
Pipeline
Transmission Line
Road Junction
Brook
Creek
Gully
Damdon
Jim Jim Went
Gregory Well
Road No. 11545
Road No. 3598
Road No. 4351
Road No. 3709
Road No. 1855
ROAD
HIGHWAY
ALBANY
GLENFIELD
MacDermott
WALKERS
TANKETTS
HURLEY
PERKINS
MEDLANS
SHEOAK
SUGGENTS
Conn of Flora & Fauna
Water Supply
Railway Water Supply
Stopping Place
Schoolsite
Trig
Col
Protection of Grave
Gravel
Pool
227


Reserve 29313
uncleared
little complex with Casuarina huegeliana
Riding trail
laterite ridge with jarrah
Wandoo
Wandoo
Wandoo
marri
jarrah
Wandoo
Wandoo
Wandoo

The following photographs are of a panoramic view of this quadrat, from its exact centre, starting with a view of corner 1, then traversing clockwise around the quadrat and back to corner 1.

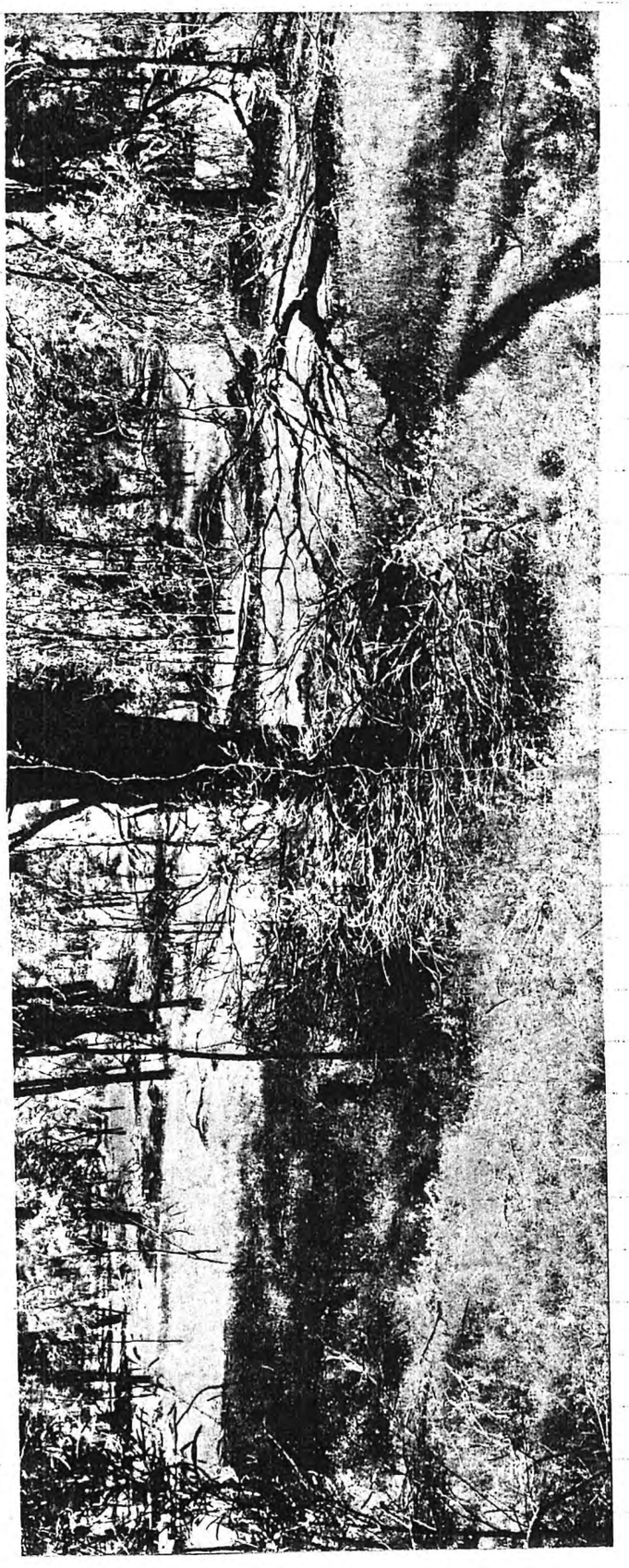
Corner 1

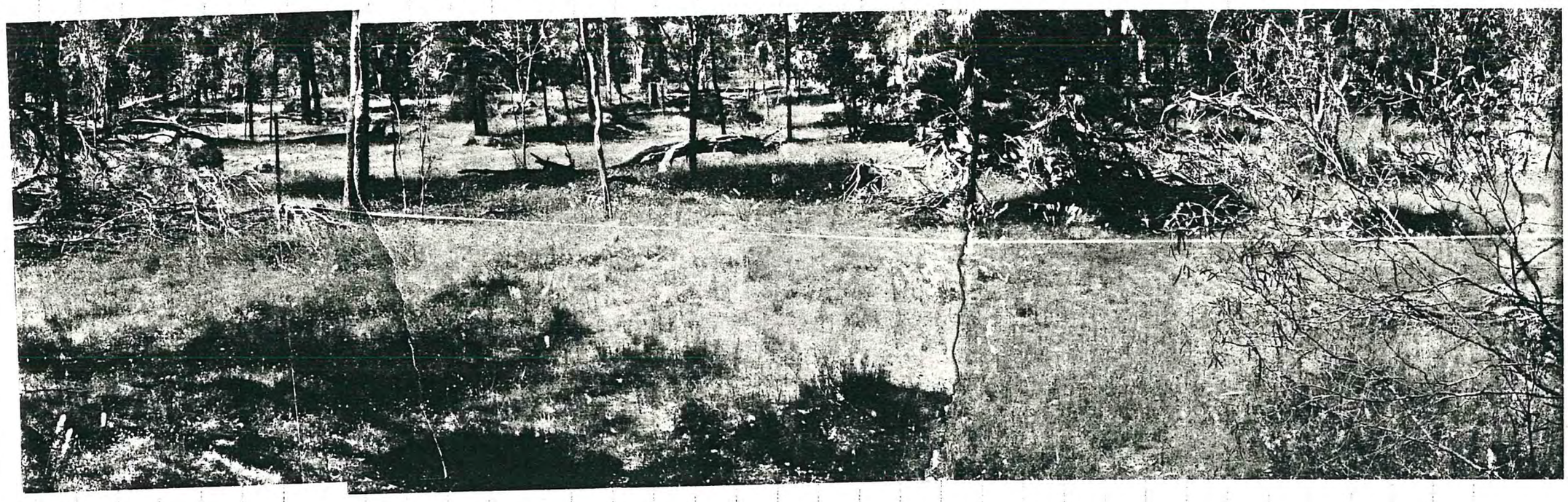




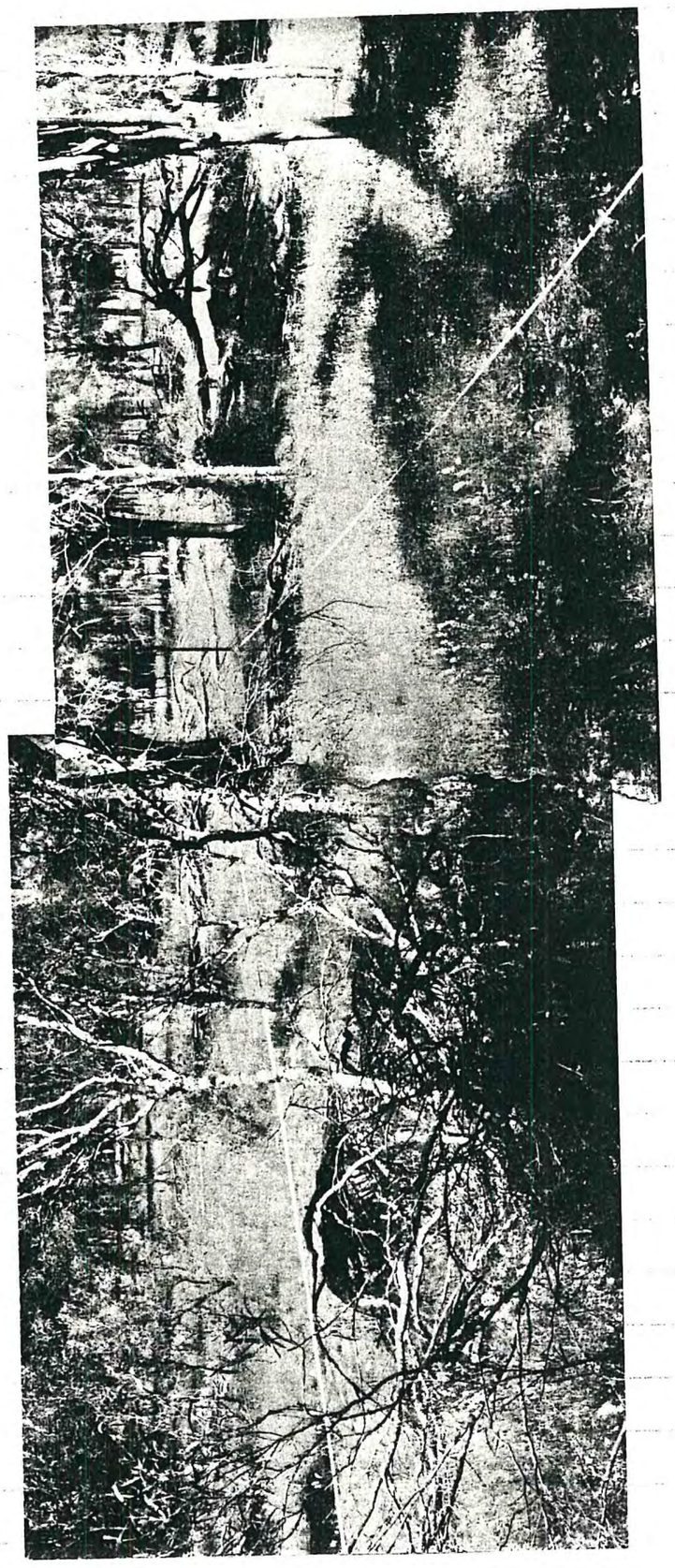
4

Corner 2





4
Corner 3



A
Cartwright



A
Corner 1

835

49259/7/76—200PDS—L942

DATE	SHEET 25 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Williams 2931 3
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

80-COLUMN CARD PUNCH LAYOUT

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS '0'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

FIELD IDENTIFICATION

CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
C01	841016	01	N	EEJC4C	0-10.35	P	2.54	23.4	2.00	005	FRT	1
												2
C01	841016	01	N	C8NHH0	3.95-4.05	P	.079	3.69	1.84	001	N-A	3
												4
C01	841016	01	N	C8NHH0	4.9-4.91	P	N--A	2.77	1.23	001	N-A	5
												6
C01	841016	01	N	C8NHH0	6.55-6.75	CH	N--A	3.07	0.00	0.00	002	FLO 7
												8
C01	841016	01	N	C1YCDL	18.7-18.95	P	N--A	2.46	1.23	001	N-A	9
												10
C01	841016	01	N	A0QA6T	19.25-20.75	P	N--A	5.84	4.72	001	N-A	11
												12
C01	841016	01	N	A0QA6T	21.45-21.65	P	.957	14.06	9.80	005	FRT	13
												14
C01	841016	01	N	EEJWBH	24.95-25.25	P	N--A	1.23	0.70	001	N-A	15
												16
C01	841016	01	N	A0QA6T	25.7-36.65	P	1.26	13.9	7.94	005	FRT	17
												18
C01	841016	01	N	C8NHH0								19
												20
C0												

236

49289/7/76—200PDS—L942

DATE	SHEET 26 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

80-COLUMN CARD PUNCH LAYOUT

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Williams 29313
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS 'Ø'; LETTER 'I' AS '1'; LETTER 'Z' AS '2'.)

FIELD IDENTIFICATION

	CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
	1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
1	CØ1	84 1 Ø1 6	Ø1	N	CBNHHØ	47·1-48·3	P	·638	8·49	4·1	81	ØØ5	FRT 1
2													2
3	CØ1	84 1 Ø1 6	Ø1	N	AØØA6T	56·95-57·45	P	·398	5·54	3·1	38	ØØ5	N-A 3
4													4
5	CØ1	84 1 Ø1 6	Ø1	N	CBNHHØ	81·Ø5-84·55	P	1·26	13·9	7·9	4Ø	Ø5	N-A 5
6													6
7	CØ1	84 1 Ø1 6	Ø1	N	EQJC4C	85·85-9Ø·75	P	1·73	23·45	·88	Ø5	FRT	7
8													8
9	CØ1	84 1 Ø1 6	Ø1	N	EQJC4C	9Ø·75-96·6	P	1·73	23·4	·ØØ	Ø5	FRT	9
10													10
11	CØ1	84 1 Ø1 6	Ø1	N	CBNHHØ	93·8-93·95	P	N--A	2·15	·923	Ø1	N-A	11
12													12
13	CØ1	84 1 Ø1 6	Ø1	N	GRANITE OUTCROP		1% COVER	N--A	ØØ	N--A	N-A	N-A	13
14													14
15	CØ1	84 1 Ø1 6	Ø1	N	ANNUAL GROUND COVER		T 95% COVER	N--A	·5ØØ	Ø1	ØØ	N-A	FLT 15
16													16
17	CØ1												17
18													18
19	CØ1												19
20													20

1 2 3	4 5	6	7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80

827

Reserve 29313
Species list ad
Sample Side 01

Gramineae

Briza maxima
Briza minor
Danthonia caespitosa
Neurachne alopecuroides
Stipa elegantissima

Cyperaceae

Lepidosperma gracile

Restionaceae

Loxocarya fulvescens

Dianellaceae

Dianella revoluta

Anthericaceae

Borya nitida
Caesia parviflora
Sowerbaea laxiflora
Thysanotus patersonii

Haemodoraceae

Conostylis setigera

Orchidaceae

Cabodenia flava
Allocasuarina huegeliana

Mimosaceae

Acacia acuminata

Papilionaceae

Gastrolobium calycinum

Stackhousiaceae

Stackhousia monogyna

Dilleniaceae

Hibbertia commutata

Myrtaceae

Eucalyptus calophylla
Eucalyptus marginata

Haloragaceae

Gloischocarpon aureum

Umbelliferae

Trachymene pilosa

Epacridaceae
Astroloma drummondii
Primulaceae
Anagallis arvensis
Scrophulariaceae
Porenducellia latifolia
Goodeniaceae
Dampiera lavandulacea
Stylidiaceae
Stylidium calcaratum
Stylidium uniflora
Asteraceae
Helipterum manglesii
Leptorhynchos glabrata
Podolepis hyssopifolia
Waitzia citrina
Waitzia suaveolens

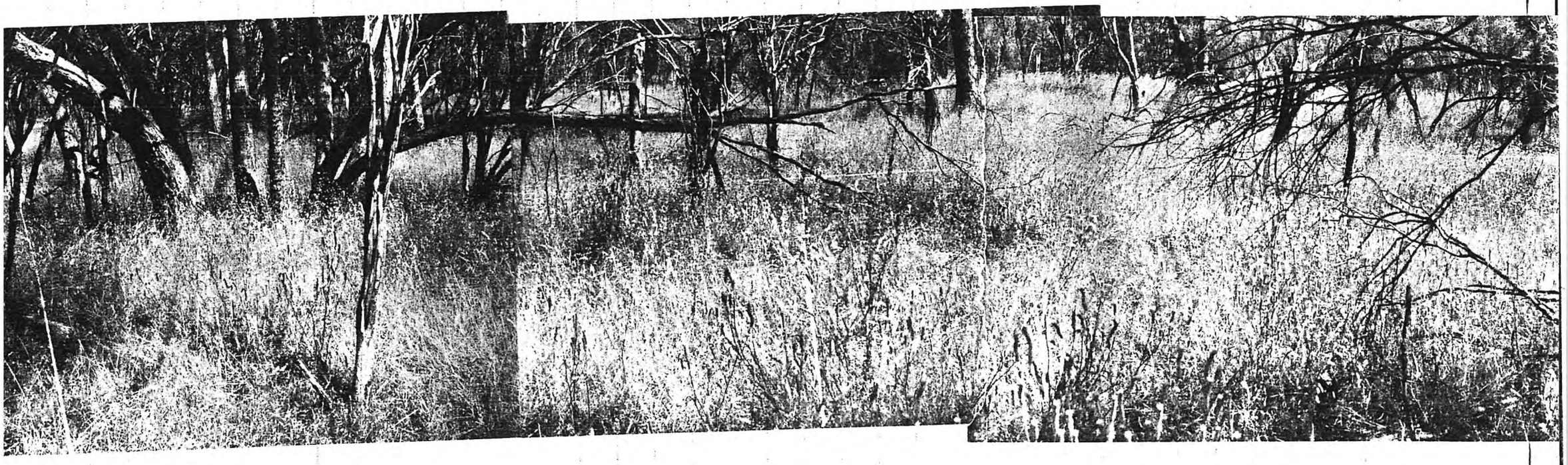
Nature Reserve name and/or number	Wyening 23201
Local Authority	Victoria Plains
Map	Litho 32/80
Area (ha)	81
Nearest named Place	9.5 kms NNE of Bolgart
Sample Site	01
Coordinates	31° 13", 116° 32"
Access	See attached map
Dominant Vegetation	York Gum Woodland
Nos of Species	21
Vegetation Details	Attached
Physical Features	Red Sandy Clay loam near flow line
Last Fire	more than 30 years
Protected from Livestock	Yes

Sampling Methods	20 m × 20 m Quadrat Species I/a, Perennial Cover by line intercept. Photo
Date sampled	November 1984
Next sampling	October 1987

SHIRE OF VICTORIA PLAINS

AVON

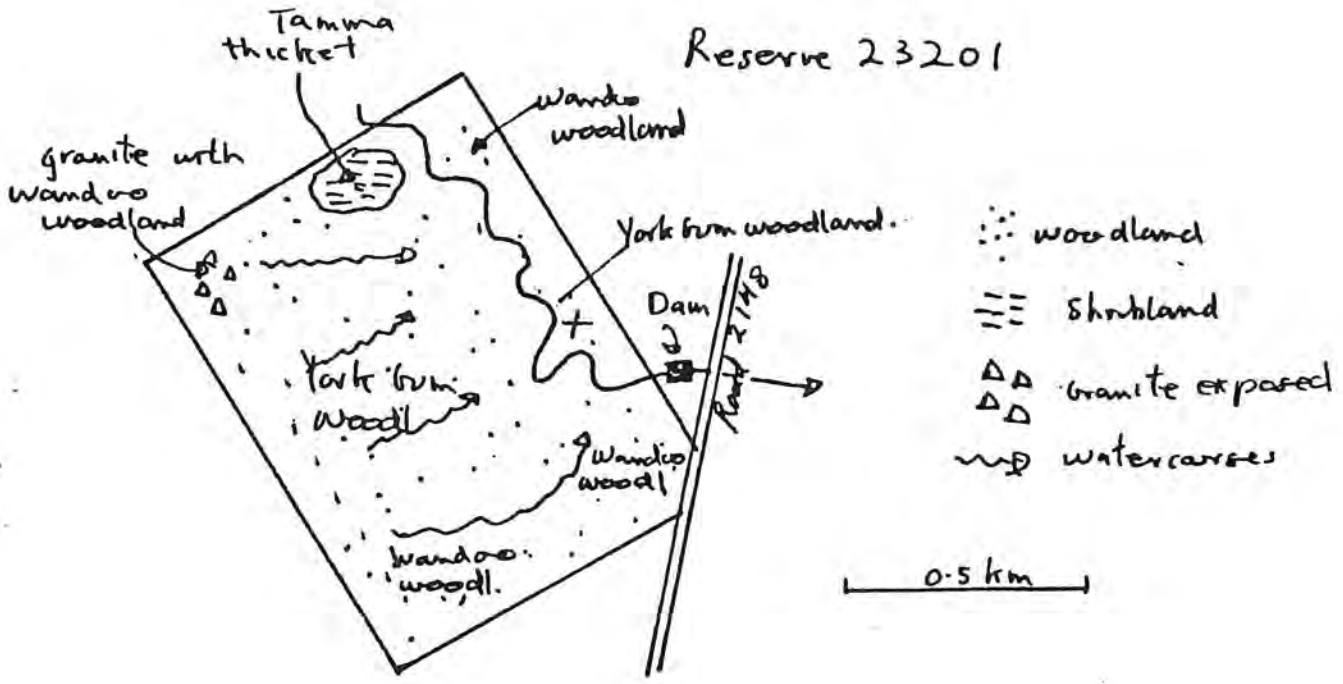
M645 255.7663 ha
M644 231.3436 ha
M643 187.9664 ha
M646 390.1170 ha
M647 241.5973 ha
M648 10.8564 ha
M649 146.0915 ha
M650 268.1894 ha
M651 96.1128 ha
M652 121.7952 ha
M653 260.0957 ha
M654 177.2523 ha
M655 249.2664 ha
M657 150.7454 ha
M658 262.2363 ha
M659 157.0180 ha
M660 164.3024 ha
M661 134.9627 ha
M662 159.0415 ha
M663 139.6165 ha
M664 151.7571 ha
M667 221.6438 ha
M671 203.1522 ha
M672 188.1788 ha
M673 445.9636 ha
M674 195.8679 ha
M675 223.7912 ha
M676 184.5367 ha
M677 170.3227 ha
M682 233.0989 ha
M683 212.8646 ha
M687 352.8859
M909 896.0733 ha
M1188 1899.1437 ha
M1204 1655.3396 ha
P564 27250 767.2688 ha
P979 27439 879.8650 ha
P1002 (1090.5165 ha)
27437 327.2429 ha
27438 713.0561 ha
11300 221.9701 ha
12558 104.4155 ha
3149 80.9371 ha
A23201 80.7727 ha Flora & Fauna
Pt M666 57.1973 ha
Pt M780 37.4107 ha
Coronline Spring
Wyening
Wyening Mission
Wyening Well
Wyening Tank
"Chandling"
"Gripthorpe"
Six Mile Feed Well
Badjewarre
Mocalcarine W
Closed Road
GOOMALLING Road No. 6915
CALINGIRI No. Road
NORTH Road
BENARING Road No.
ROAD 2303
ROAD 2148
ROAD 10538
ROAD 10164
ROAD 3389
ROAD 8111
ROAD 10098
CORONDINE Road No. 10539
WYENING Road No.
BEHANGING Road No.
SOUTH Road
ERICKSON Road
BLOOD Road
Brook Road
Chairing Road
Elyaring Road
METSON ROAD Road No. 1187
1834



The view of the quadrat 01, looking West

4/11/84

Reserve 23201



49289/7/75-200PDS-L942

DATE	SHEET 30 OF 48
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

80-COLUMN CARD PUNCH LAYOUT

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Victoria Plains
Wyena, 23201
QUADRAT COVER BY TRANSECT

NAME J. GOODSELL

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS 'Ø'; LETTER 'I' AS 'I'; LETTER 'Z' AS 'Z'.)

FIELD IDENTIFICATION

CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A	
1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	
CØ1	84 1 10 5	Ø1	N	ANNUAL GROUND COVER		T 100% COVE	N--A	.5ØØ	ØØØ	N--A	F.L.T	1
												2
CØ1	84 1 10 5	Ø1	N	EQJLUY	Ø-6.53	P	1.98	23.4	8.42	ØØ2	F.R.T	3
												4
CØ1	84 1 10 5	Ø1	N	JØ6SLD	17.Ø5-22.15	P	.475	4.31	1.54	ØØ2	F.R.T	5
												6
CØ1	84 1 10 5	Ø1	N	AØQSØT	33.56-33.57	P	N--A	.231	ØØØ	1ØØ	N--A	7
												8
CØ1	84 1 10 5	Ø1	N	AØQA6T	32.25-32.26	P	N--A	1.23	3Ø7	1ØØ	N--A	9
												10
CØ1	84 1 10 5	Ø1	N	EQJLUY	31.58-37.83	P	.62Ø	11.24	Ø7	ØØ1	F.R.T	11
												12
CØ1	84 1 10 5	Ø1	N	EQJLUY	41.47-42.68	P	.62Ø	15.85	1Ø	ØØ1	F.R.T	13
												14
CØ1	84 1 10 5	Ø1	N	EQJLUY	45.55-45.8	P	.785	18.05	6Ø	ØØ1	F.R.T	15
												16
CØ1												17
												18
CØ1												19
												20
1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80	

49269/7/78-200P DS-L942

DATE	SHEET 31 OF 46
CARD PUNCH PRINT Yes ( ) No ( )	VERIFY Yes ( ) No ( )

PROJECT: VEGETATION MONITORING OF RESERVE
NAME AND/OR NUMBER Shire of Victoria Plains
Young) 23201
QUADRAT COVER BY TRANSECT

NAME L. GOODSELL

80-COLUMN CARD PUNCH LAYOUT

ONLY TYPE IN DATA CODED ON SHADED LINES
(WRITE ZERO AS "0"; LETTER "I" AS "I"; LETTER "Z" AS "2".)

FIELD IDENTIFICATION

CODE	DATE YR MN DY	SITE CODE	N OR C	PLANT SPECIES NAME INCLUDE BARE GROUND IF APPLICABLE	INTERCEPT	RAUNKIERS LIFE FORM AND/OR OTHER DESCRIPTIONS	C.B.H OR N--A (M)	HEIGHT TO TOP OF CANOPY (M)	HEIGHT TO BASE OF CANOPY (M)	R.F.C. OR N-A	FLO. OR FRT. OR N-A
1 2 3	4 5 6 7 8 9	10 11	12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	52 53 54 55 56 57 58 59 60 61 62	63 64 65 66	67 68 69 70	71 72 73 74	75 76 77	78 79 80
C01	84 1 1 05	01	N	E9JLVY	49·65-52·42	P	·760	14·5	2·81	001	FRT
C01	84 1 1 05	01	N	E9JLVY	52·33-52·58	P	·760	14·5	2·81	001	FRT
C01	84 1 1 05	01	N	D42RHO	54·61-56·73	CH	N--A	1·07	00	005	FRT
C01	84 1 1 05	01	N	E9JLVY	56·56-57·56	P	1·19	11·35	5·22	005	FRT
C01	84 1 1 05	01	N	E9JLVY	63·55-66·85	P	·718	13·85	5·28	005	FRT
C01	84 1 1 05	01	N	E9JLVY	77·1-77·35	P	·797	10·8	3·98	005	FRT
C01	84 1 1 05	01	N	E9JLVY	80·4-80·95	P	·638	3·69	1·84	005	FRT
C01											
C01											
C01											
C01											

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Reserve 23201
Species 21
Sample Site 01

Gramineae

Avena fatua
Briza maxima
Danthonia setacea
Erharta longiflora
Neurachne alopecuroides
Stipa elegantissima
Stipa pendulifolia
Stipa trichophylla

Dianellaceae

Dianella revoluta

Casuarinaceae

Allocasuarina campestris

Amaranthaceae

Ptilotus polystachyus

Portulacaceae

Calandrinia brevipedata

Caryophyllaceae

Petrorhagia velutina

Mimosaceae
Acacia acuminata
Acacia saligna
Papilionaceae
Jacksonia sternbergiana
Myrtaceae
Eucalyptus loxophleba
Eucalyptus wandoo
Asteraceae
Podolepis canescens
Podotheca gnaphaloides
Ursinia anthemoides