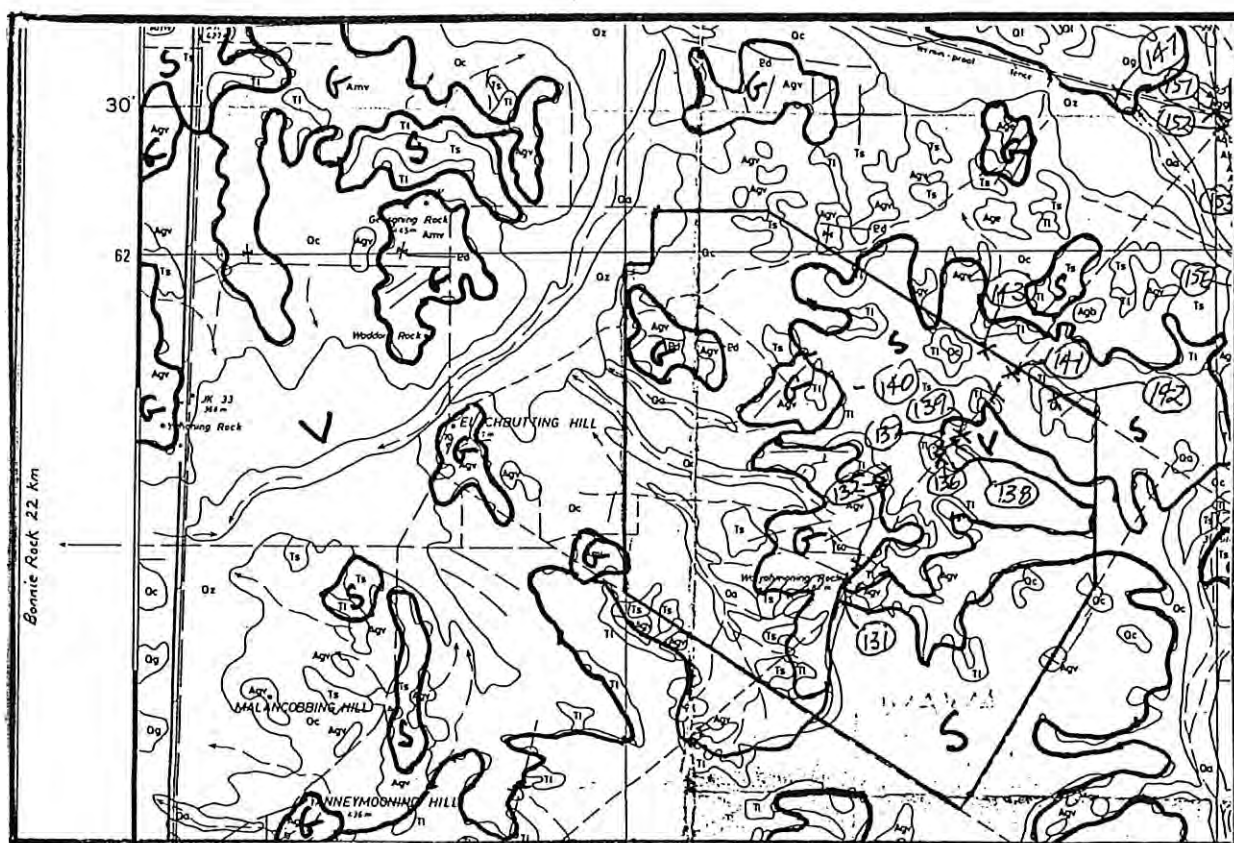


WALYAHMONING ROCK NATURE RESERVE - FLORA AND VEGETATION

Based on 12 sites recorded by Ken Newbey, September, 1982.

Prepared by B. J. Newbey, May, 1992.



For the Department of Conservation and Land Management: Wheatbelt Region.



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## INTRODUCTION

Walyahmoning Rock Nature Reserve (WRNR) is situated fifty kilometres north-west of Bullfinch.

This report is based on flora/vegetation sites recorded by Ken Newbey (KRN) on 21,22 September 1982 as part of the biological survey of the Eastern Goldfields. The relevant section of the resultant report was published in 1985 (Dell *et al* 1985), and will here be called the Jackson Report.

The flora list in the Jackson Report is by landform unit only, not vegetation type as well as is possible in this report (Table 2). Similarly the frequency/abundance in Table 2 refer only to the sites in WRNR, and not as in the Jackson Report, to a much larger study area.

Several site descriptions are included in the Jackson report, but only two of these are from the WRNR. All are detailed here.

A vegetation map for WRNR was begun by KRN for a planned report. It consisted of lines on air photos and a vegetation type code. A more complete version of this map appears as Map 2. Map 1 shows location of the sites and the geological interpretation of the reserve.

KRN made brief notes on geology, geomorphology and vegetation based on observations and available literature. These are reproduced below.

Plant identification was by KRN with assistance from herbarium staff.

Appendix I is a photocopy of the KRN field notebook entries for collections made at WRNR during the study period.

Appendix II is a table showing bird species observed by B.J. Newbey in the vegetation types described in this report. An indication of abundance as well as some breeding and feeding data is given.

The flora list and the site descriptions are provided on diskette - entered on an IBM compatible computer using MS WORD. Files: WALFLOR (flora list); WALSITE (site descriptions). Appendix II is included also as WALBIR.

## METHODS

Sites were sampled using the plotless releve technique detailed in Biological survey committee, (1984). Essentially the plot size varies according to floristic richness and physical aspects of the site. Homogeneity of the area sampled is subjectively determined dependent on the landform element boundary and on the basis of floristic composition of prominent species in each stratum.

## GEOLOGY

**Chin and Smith** (1983) comprises a map of the geology of the area at 1:250 000 with explanatory notes. Table 1 (below) lists the geological surfaces in the Jackson area as mapped by Chin and Smith. WRNR is situated on the Yilgarn Block on the local drainage divide between Lake Deborah and the Hamersley Lakes. Underlying the whole reserve is Archean granite and adamellite, medium and coarse grained (Agv). Walyahmoning Rock is a large area of bedrock largely exposed by erosion from westward drainage.

The uplands or sandplains are represented by Tertiary surfaces of sand (Ts) or gravel and duricrust exposure (Tl) as breakaways. Dissecting the sandplains are broad valleys filled with colluvium from the sandplain (Qc). The wider valley have definite drainage with alluvial deposits (Qa).

Table 1

Brief description of Geological Surfaces	
Symbol	Description
(Ja)	Jackson 1:250,000 sheet
Q	(Quaternary)
Qa	Alluvium of sand, silt and gravel in stream beds.
Qc	Colluvium of silt, sand and gravel from rock and lateritic outcrops.
Qg	Eolian and alluvial deposits near salt lakes.
Ql	Lacustrine deposits in salt lakes.
T	(Tertiary)
Tl	Lateritic duricrust over deeply weathered bedrock.
To(Anl)	Deeply weathered granitoid rock.
Ts	Yellow and red sands of remnant sandplains. Ferruginous pisolitic veneers may be present.
A	(Archaean)
Aab	Metabasalt.
Agg	Foliated medium and coarse-grained biotite granite and adamellite.
Agv	Medium and coarse-grained seriate granite and adamellite.
Aiw	Banded ironstone formation (BIF).
Akb	Metamorphosed komatitic basalt.
Akf	Metamorphosed leucocratic komatitic basalt.
Ame	Mixed granitoids.

From Dell *et al* (1985).

## GEOMORPHOLOGY

The WRNR is situated on the ancient land surface characteristic of the south-west of Western Australia. Broad valley have eroded into the almost flat upland plain now referred to as sandplain. Valley floors are two to twelve kilometres wide. The highest areas of upland are slight rises of laterite. Laterite breakaways to five metres high and sometimes reduced to slopes of five degrees, mark most of the boundaries between sandplain and broad valleys. Colluvium has filled the broad valleys so that internal relief between the highest parts of the sandplain and the broad valleys is thirty-five metres.

## VEGETATION

The sandplain is a gentle undulating surface with *Allocasuarina acutivalvis* tall shrublands on deep gravelly sands (T1) in slightly higher areas, and *Acacia coolgardiensis* tall shrubland and *Eucalyptus oldfieldii* mallee on colluvial sheets of yellow sand. (Ts).

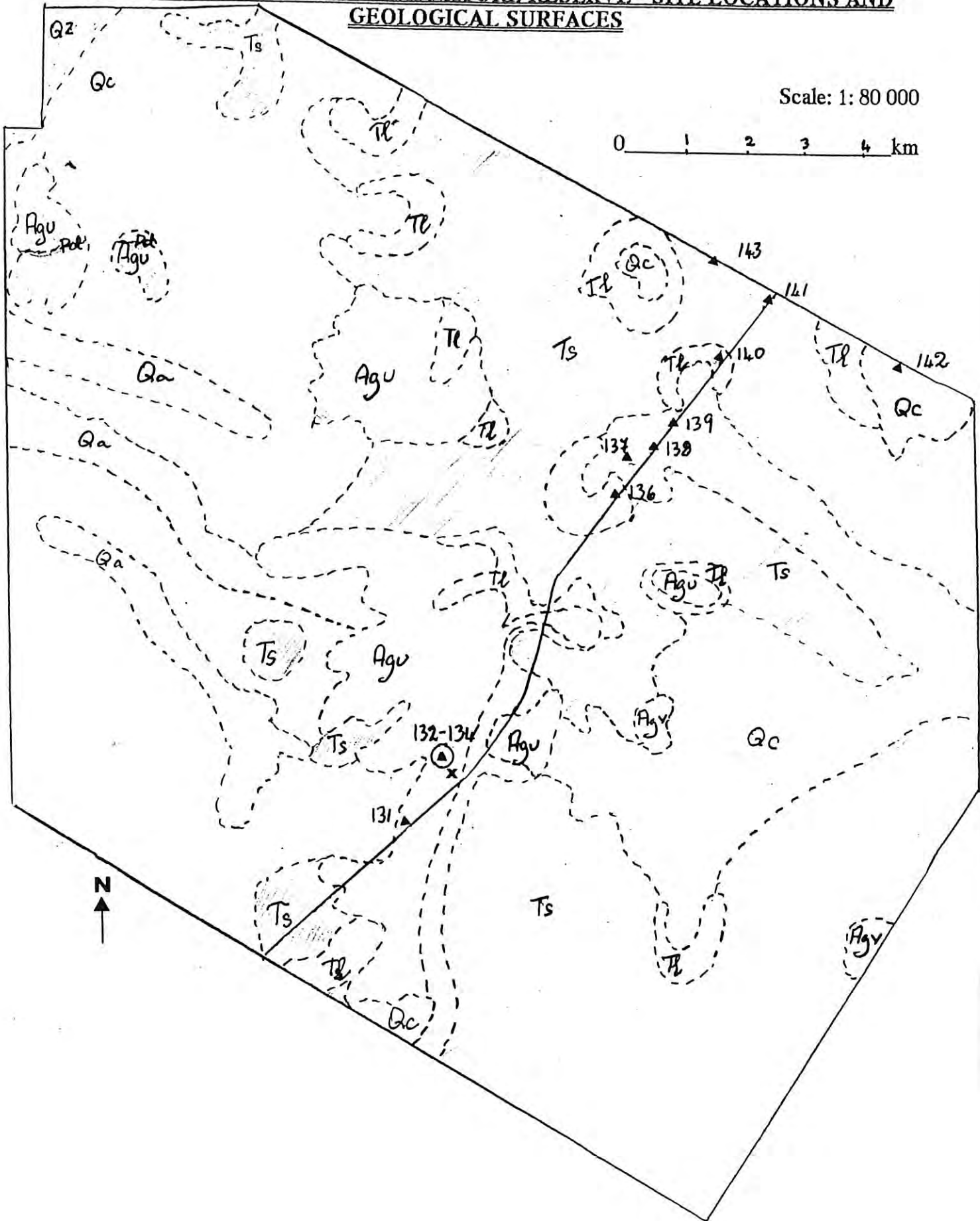
Breakaways forming the boundary between most sandplain and broad valleys, is sharply defined by *Eucalyptus capillosa* (Wandoo) low woodland (T1 in part). The width of the feature varies from 30 - 50m. The highest free face breakaway observed, or estimated from air photos, was 3m.

A generalized sequence of vegetation from breakaway to valley floor, is *Eucalyptus loxophleba* (York gum) tree mallee on shallow soil, *E. sheathiana* on colluvial soils, *E. salubris* (gimlet) low woodland on the heavier soils of the flat floor, and *E. salmonophloia* (Salmon gum) on loamier soils and also Qa.

Walyahmoning Rock covers about 14 square km and is gently curved in topography. A granite complex of mainly annuals grows on skeletal soil sheets (to 35 cm thick), with mixed tall shrubland on thicker soil sheets (35 - 55cm). At the base of major sections of bare rock are narrow bands of mid-dense acacia tall shrubland (thicket) 10 - 30m wide. The vegetation grades into *Acacia dentifera* mid-dense to dense heath A (not sampled), along the more prominent drainage lines. The density of the mixed shrubland is variable and related to soil depth and runoff. *Eucalyptus loxophleba* shrub mallee is present on the outer apron over kaolinized granite bedrock.

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MAP 1 WALYAHMONING ROCK NATURE RESERVE - SITE LOCATIONS AND GEOLOGICAL SURFACES



MAP 1 - KEY

SITE LOCATION

▲ 131

TRIG POINT

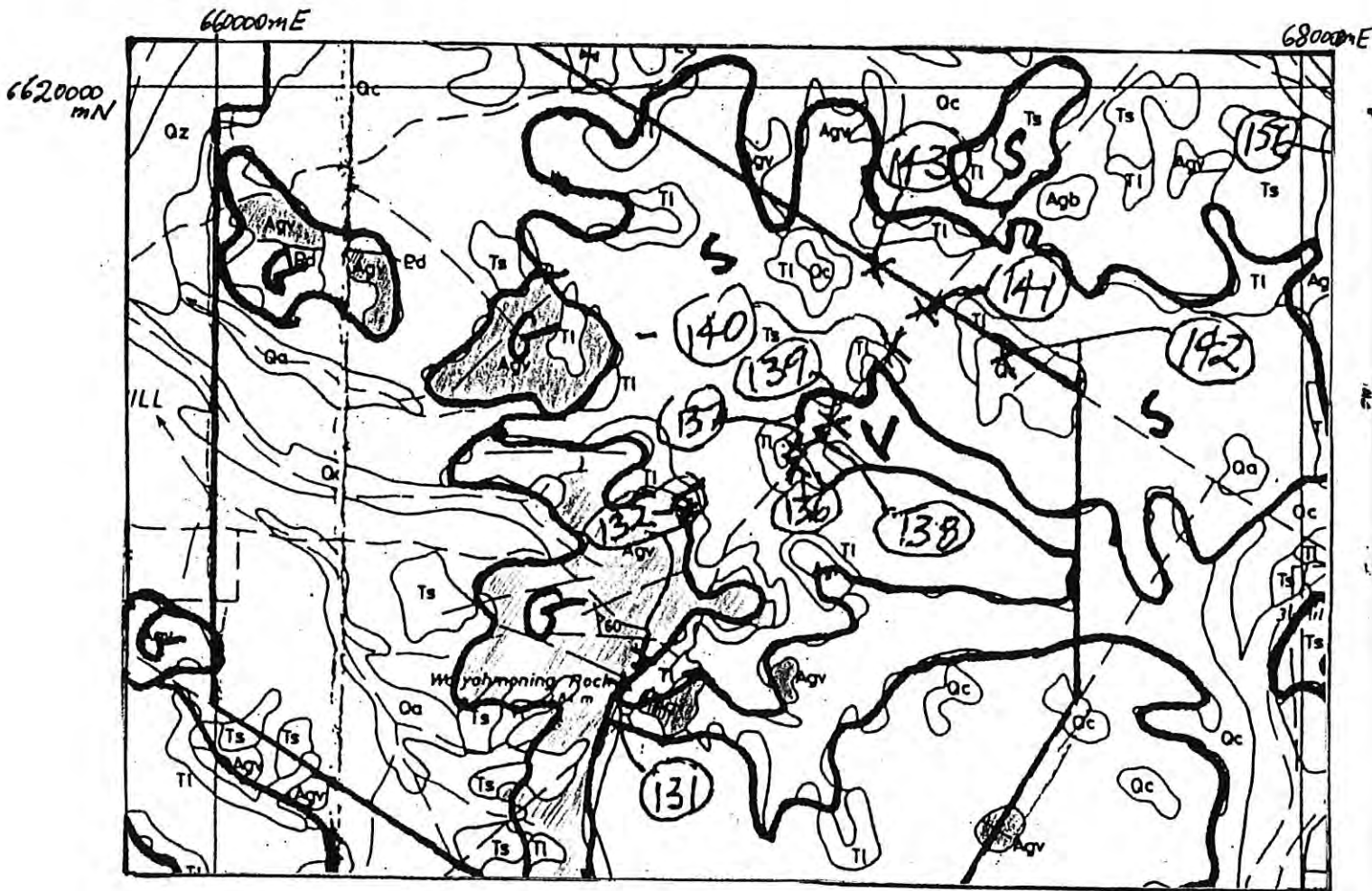
X

Symbol	Explanation
Agv ... ..	Granite - medium and coarse grained
Pd ... ..	Dolerite dyke
Tl ... ..	Lateritic duricrust over deeply weathered bedrock
Ts ... ..	Yellow sands of remnant sandplain
Qc ... ..	Colluvium of silt, sand & gravel from rock & lateritic outcrops
Qa ... ..	Alluvium of sand, silt
Qz ... ..	Sheet wash deposits of silt & sand on gentle slopes marginal to Qa

The geological surface boundaries are dotted as their position was sketched from a smaller scale Chin and Smith (1983) geological survey map.

**Site locations**

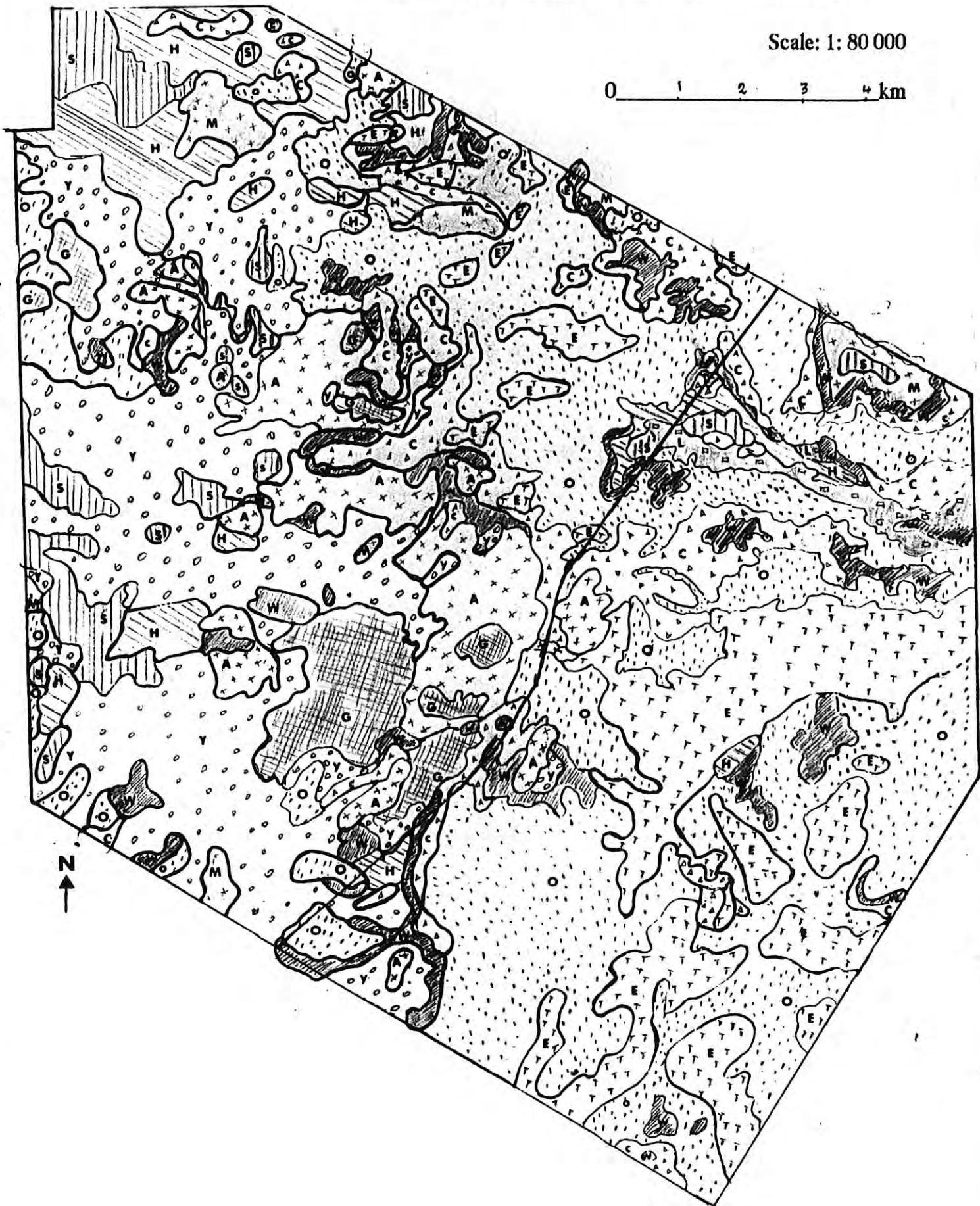
The cover map shows the original site location markings. Below is an enlargement to a scale of 1: 125 000. Site 134 was said (on the data sheet) to be NW of the trig point. It may be more to the north of the trig point and about 300 metres from it. It included a sheltered pool, approximately 4m long x 2.5m wide x 1.2m deep.



MAP 2. WALYAHMONING ROCK NATURE RESERVE - VEGETATION



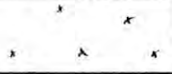
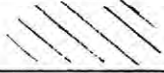
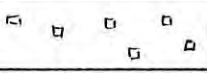
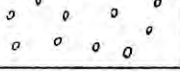
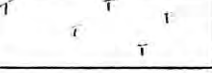
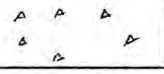
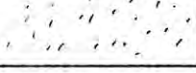
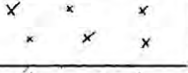
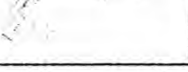
Scale: 1: 80 000

0 1 2 3 4 km





## KEY

	S = <i>Eucalyptus salmonophloia</i> (salmon gum) open woodland
	W = <i>E. capillosa</i> (wandoo) low woodland
	M = <i>E. salubris</i> (gimlet) low woodland
	H = <i>E. sheathiana</i> low woodland
	L = <i>E. loxophleba</i> (york gum) open tree mallee
	Y = <i>E. loxophleba</i> (york gum) .open shrub mallee
	E = <i>E. oldfieldii</i> very sparse mallee
	C = <i>Allocasuarina</i> tall shrubland (scrub)
	O = <i>Acacia coolgardiensis</i> tall shrubland (scrub)
	A = Mixed tall shrubland (scrub) on granite
	G = Granite complex

The map outline was based on air photos flown in March and April 1968, together with 1971 Lands and Surveys map. The vegetation was by KRN on the air photos.

The vegetation classification terminology is after Muir (1977). Muir's vegetation classification table is reproduced below as Table 2.

Table 2

## MUIR'S VEGETATION CLASSIFICATION (From Muir, 1977)

## VEGETATION CLASSIFICATION TO BE USED IN WHEATBELT SURVEY

LIFE FORM/HEIGHT CLASS	CANOPY COVER			
	DENSE <sup>d</sup> 70-100%	MID-DENSE <sup>c</sup> 30-70%	SPARSE <sup>i</sup> 10-30%	VERY SPARSE <sup>r</sup> 2-10%
T Trees >30m M Trees 15-30m LA Trees 5-15m LB Trees <5m	Dense Tall Forest Dense Forest Dense Low Forest A Dense Low Forest B	Tall Forest Forest Low Forest A Low Forest B	Tall Woodland Woodland Low Woodland A Low Woodland B	Open Tall Woodland Open Woodland Open Low Woodland A Open Low Woodland B
KT Mallee tree form KS Mallee shrub form	Dense Tree Mallee Dense Shrub Mallee	Tree Mallee Shrub Mallee	Open Tree Mallee Open Shrub Mallee	Very Open Tree Mallee Very Open Shrub Mallee
S Shrubs >2m SA Shrubs 1.5-2.0m SB Shrubs 1 0-1.5m SC Shrubs 0.5-1.0m SD Shrubs 0.0-0.5m	Dense Thicket Dense Heath A Dense Heath B Dense Low Heath C Dense Low Heath D	Thicket Heath A Heath B Low Heath C Low Heath D	Scrub Low Scrub A Low Scrub B Dwarf Scrub C Dwarf Scrub D	Open Scrub Open Low Scrub A Open Low Scrub B Open Dwarf Scrub C Open Dwarf Scrub D
P Mat plants H Hummock Grass  GT Bunch grass >0.5m GL Bunch grass <0.5m J Herbaceous spp.	Dense Mat Plants Dense Hummock Grass  Dense Tall Grass Dense Low Grass Dense Herbs	Mat Plants Mid-Dense Hummock Grass  Tall Grass Low Grass Herbs	Open Mat Plants Hummock Grass  Open Tall Grass Open Low Grass Open Herbs	Very Open Mat Plants Open Hummock Grass  Very Open Tall Grass Very Open Low Grass Very Open Herbs
VT Sedges >0.5m VL Sedges <0.5m	Dense Tall Sedges Dense Low Sedges	Tall Sedges Low Sedges	Open Tall Sedges Open Low Sedges	Very Open Tall Sedges Very Open Low Sedges
X Ferns Mosses, liverwort	Dense Ferns Dense Mosses	Ferns Mosses	Open Ferns Open Mosses	Very Open Ferns Very Open Mosses

## VEGETATION SITES

Listed below are the descriptions of the vegetation sites including data on geology, landform and soils. The sites are ordered by landform unit, and within each unit from the tallest formation.

Vegetation types are distinguished by structure and life form of the tallest stratum into classes such as: Woodlands (Trees >15m), Low woodlands (Trees <15m), Mallee and Tall shrublands (Shrubs >2m), as described by Muir, (1977). If the vegetation structure and composition is highly variable, the vegetation is referred to as a complex.

MUIR= Muir (1977) notation.

Misc. (miscellaneous) plants include any life form (annuals, creepers, mistletoe grasses etc.)

Numbers in brackets following plant name are percent canopy cover (CC) [Canopy cover as described in Muir, 1977]. Taxa with less than 0.1%CC are indicated by a (+). The number is given for only the first species in each CC class, the species in each class being arranged alphabetically. Although some strata <2 percent canopy cover are listed, they are not included in the Muir notation which requires a minimum of 2% CC.

LAST BURNT: estimated from observations in nearby areas where the year of the last fire was known.

BEDROCK refers to major rock type; GEOLOGICAL SURFACE is that shown on the 1:250 000 geological map, "Jackson", Chin and Smith (1983). Those surfaces listed are briefly described in Table 2.

The cover of rock, stone and pavement was visually estimated. For explanation of litter see Muir (1977).

To sample the soil profile, a hole 62mm in diameter was augered to a depth of 1m where possible.

\*\*\*\*\*

BREAKAWAY

SITE NO.: 136

SITE NAME: Wandoo low woodland

LOCATION: 4.8km NNE of Walyahmoning Rock (Lat. 30deg.36' 50"S; Long. 118deg.46' 40"E)

DATE: 21-9-1982

## VEGETATION

MUIR: LAi.Sr.SAr.SDr

Stratum 1: Trees 8m

CC=15

*Eucalyptus capillosa* subsp. *capillosa*(15).

Stratum 2: Mallee 5m.

CC=1

*Eucalyptus celastroides*(1), *Eucalyptus yilgarnensis*(+).

Stratum 3: Shrubs 2.1 - 4m

CC=3.5

*Melaleuca uncinata*(2), *Melaleuca laterifolia*(1), *Acacia acuminata*(+), *Allocasuarina acutivalvis*, *Alyxia buxifolia*, *Exocarpos aphyllus*, *Melaleuca acuminata*, *Melaleuca eleuterostachya*

Stratum 4: Shrubs 1.6 - 2m

CC=4

*Acacia densiflora*(3), *Daviesia benthamii*(0.5), *Eremophila paisleyi*, *Eremophila granitica*(+).

Stratum 5: Shrubs 0.6 - 1m

CC=3.3

*Acacia hemiteles*(2), *Phebalium tuberculosum* subsp. *tuberculosum*(1), *Acacia erinacea*(+), *A. resomarginea*, *A. steedmanii*, *Olearia propinqua*(+), *Eriostemon brucei* subsp. *brucei*, *E. desertii*, *Drummondia hassellii*, *Scaevola spinescens*.

Stratum 6: Misc. plants to 0.5m

CC=8

*Eremophila drummondii*(4), *Actinobolus uliginosum*(0.5), *Giluthia osbornii*, *Lomandra effusa*, *Waitzia acuminata*, *Westringia cephalantha*, *Podotheca capillaris*(0.3), *Enneapogon* sp. KRN 7755 (0.2), *Erymophyllum ramosum* subsp. *ramosum*, *Gunniopsis rubra*, *Blennosporadrummondii* (0.1), *Calandrinia calypttrata*, *Helipterum demissum*, *Hydrocotyle piliferavar. glabrata*, *Maireana triptera*, *Olearia muelleri*, *Pentaschistis airoides*, *Sclerolaena diacantha*, *Stenopetalum filifolium*, *Trachymene pilosa*, *Triglochin centrocarpa*, *Calotis hispidula*(+), *Ceratogyne obionoides*, *Chthonocephalus pseudevax*, *Crassula exserta*, *C. pedicellosa*, *Goodenia berardiana*, *Enchylaena tomentosa*, *Helichrysum lindleyi*, *Hibbertia glomerata*, *Levenhookia leptantha*, *Maireana carnosia*, *M. thesioides*, *M. trichoptera*, *Menkea australis*, *Millotia tenuifolia*, *Olearia exiguiifolia*, *Patersonia umbrosa*, *Podotheca lessonii*, *Stipa elegantissima*, *Thelymitra nuda*.

No. of TAXA: 64

LAST BURNT: Not within last 80 years

MODIFICATION: None

## LANDFORM

BEDROCK: Kaolinized granite

GEOLOGICAL SURFACE: T1

UNIT: Subdued breakaway

ELEMENT: Rim and slope

## SOIL

ORIGIN: Colluvial

DRAINAGE: Normal to dry

SURFACE: Crusting

EROSION POTENTIAL: Wind - none; Water - Low

ROCK: 0 - 25% cover

STONE: None

LITTER: 15% cover, few branches, mostly broad leaves to 2cm.

PAVEMENT: 0 - 15% cover, patchy distribution, main size range: 2 - 12mm.

SOIL PROFILE: 0 - 93cm. Friable. Boundary irregular

PROFILE THICKNESS: &lt;1m.

\*\*\*\*\*

GRANITE EXPOSURE

SITE NO.: 131

SITE NAME: York Gum Mallee

LOCATION: Walyahmoning Rock (Lat. 30deg.38' 20"S, Long. 118deg.44' 40"E)

DATE: 21-9-1982

## VEGETATION

MUIR: KSi.Sr.SBr.SDr

Stratum 1: Mallee 4 -5m

CC=15

*Eucalyptus loxophleba*(15)

Stratum 2: Shrubs 2.1 - 3m

CC=7

*Acacia acuminata*(3), *Dodonaea inaequiloba*, *Allocasuarina acutivalvis*(0.5),  
*Exocarpus aphyllus*(0.2), *Callitris canescens*(+), *Melaleuca acuminata*, *Santalum acuminatum*

Stratum 3: Shrubs 1.6 - 2m

CC=1

*Melaleuca radula*(1)

Stratum 4: Shrubs 1 - 1.5m

CC=6

*Acacia densiflora*(3), *Acacia andrewsii*(2), *Eremophila granitica*(1).

Stratum 5: Misc. plants 0.6 - 1m

CC=1

*Acacia erinacea*(1), *Dianella revoluta*(+).

Stratum 6: Misc. plants &lt;0.5m

CC=17

*Eremophila drummondii*(8), *Lepidium genistoides*(5), *Olearia muelleri* (1), *Sclerolaena diacantha*, *Chrysocoryne uniflora*(0.5), *Maireana triptera*, *Danthonia setacea*(0.3)  
*Actinobolus uliginosum*(0.2), *Calocephalus angianthoides*, *Aira caryophyllea*(+),  
*Enneapogon*sp. KRN 7755, *Gunniopsis rubra*, *Helichrysum lindleyi*, *Levenhookia leptantha*,  
*Maireana carnosa*, *Podolepis capillaris*, *Pterostylis*sp. KRN 9598, *Sclerolaena drummondii*,  
*Thysanotus patersonii*subsp. *patersonii*, *Trachymene cyanopetala*

No. of TAXA: 35

LAST BURNT: About 40 years ago

MODIFICATION: None

## LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: AgV

UNIT: Bedrock exposure

ELEMENT: Outer apron

## SOIL

ORIGIN: In situ weathering

DRAINAGE: Normal

SURFACE: Crusting

ROCK: 0 - 15% cover, patchy distribution totalling 2%, irregular in shape and 3-18cm long.

STONE: 0 - 10% cover, patchy distribution totalling 1%.

LITTER: 15% cover; mostly broad leaves.

PAVEMENT: 0 - 20% cover, patchy distribution, size range: 2 - 8mm.:

SOIL PROFILE: Friable soil of depth vaying from 30 - 150cm.

PROFILE THICKNESS: &lt;2m., underlain by kaolinized granite.

\*\*\*\*\*

SITE NO.: 132 SITE NAME: *Acacia jibberdingensis* Tall Shrubland  
 LOCATION: Walyahmoning Rock (Lat. 30deg.38'S, Long. 118deg.45'E) DATE: 21-9-1982

VEGETATION MUIR: Sd  
 Stratum 1: Trees 3 - 5m CC=0.5  
*Eucalyptus orbifolia*(0.5).  
 Stratum 2: Shrubs 2.2 - 4m. CC=72  
*Acacia jibberdingensis*(60), *Acacia lasiocalyx*(5), *Acacia neurophylla*(3), *A. assimilis*  
*Allocasuarina campestris*subsp. *campestris*(0.5), *Brachychiton gregorii*(+), *Exocarpos*  
*sparteus*  
 Stratum 3: Shrubs 1.6 - 2m CC=1.6  
*Grevillea paniculata*(1), *Calothamnus quadrifidus*(0.5), *Santalum acuminatum*(0.1).  
 Stratum 4: Misc. plants 1 - 1.5m. CC=3.3  
*Cassytha glabella*(1), *Comesperma volubile*, *Pomaderris intangenda*, *Guichenotia*  
*macrantha*(0.2), *Calycopeplus ephedroides*(0.1).  
 Stratum 5: Misc. plants <1m. CC=4  
*Acacia restiacea*(2), *Stypandra imbricata*(1), *Spartochloa scirpoidea*(0.5),  
*Dodonaea attenuata*(0.2), *Drosera macrantha*, *Glischrocaryon aureum*var. *aureum*,  
*Lepidospermum resinosum*, *Hibbertia glomerata*(0.1).  
 No. of TAXA: 24 LAST BURNT: About 25 years ago  
 MODIFICATION: None

## LANDFORM

BEDROCK: Granite  
 UNIT: Granite exposure

GEOLOGICAL SURFACE: AgV  
 ELEMENT: Deep inner apron

## SOIL

ORIGIN: Alluvial DRAINAGE: Winter-damp, summer-dry  
 SURFACE: Hardsetting  
 ROCK: 0 - 2% cover, patchy distribution. STONE: None  
 LITTER: 90% cover, mostly narrow and terete leaves 7-8cm deep, continuous.  
 PAVEMENT: Range % of cover 5-15. Distribution even, Main size range 2 - 15mm.  
 SOIL PROFILE: Friable, 10 - 15% subangular stones. No weathering zone. Boundary wavy to irregular.  
 PROFILE THICKNESS: Shallow.

\*\*\*\*\*

SITE NO.: 133 SITE NAME: Mixed Tall Shrubland (patchy)  
 LOCATION: Walyahmoning Rock (Lat. 30deg.38'S, Long. 118deg.45'E) DATE: 21-9-1982

VEGETATION MUIR: Si.SAr  
 Stratum 1: Shrubs 2.1 - 3.5m CC=20  
*Calycopeplus ephedroides*(10), *Calothamnus quadrifidus*(3), *Acacia lasiocalyx*(2),  
*Melaleuca macronycha*, *Allocasuarina campestris*subsp. *campestris*(1), *Leptospermum*  
*erubescens*, *Brachychiton gregorii*(0.5), *Melaleuca uncinata*, *Acacia ligulata*(0.2),  
*Alyogyne hakeifolia*(0.1), *Melaleuca laterifolia*, *Exocarpos sparteus*(+), *Pittosporum*  
*phyllareoides*, *Santalum acuminatum*, *S. spicatum*

Stratum 2: Misc. plants 1.6 - 2m. CC=4.5  
*Kunzea pulchella*(3), *Acacia dentifera*(1), *Persoonia diadema*(0.1), *Cassytha glabella*(+),  
*Rhagodia preissii*, *Ricinocarpus*aff. *muricatus*KRN 9559.

Stratum 3: Misc. plants 1.0 - 1.5m. CC=1.6

*Acacia prainii*(1), *Keraudrinia integrifolia*(0.5), *Comesperma volubile*(0.1).

Stratum 4: Misc. plants <1m. CC=6.0

*Lepidospermum resinsum*(2), *Chrysocoryne pusilla*(1), *Trachymene ornata*, *Melaleuca radula*(0.5), *Mirbelia microphylla*, *Blennospora drummondii*(0.2), *Senecio glossanthus*, *Stackhousia huegelii*, *Brachycome pusilla*(0.1), *Drosera menziesii*, *Enneapogon*sp. KRN 7755, *Helipterum pygmaeum*, *Hydrocotyle callicarpa*, *Lomandra suaveolens*, *Opercularia vaginata*, *Pityrodia teckiana*, *Podolepis canescens*, *Waitzia acuminata*, *Amyema benthamii*(+), *Briza minor*, *Caladenia barbarossa*, *Calytrix leschenaultii*, *Chamaexeros macrantha*, *Cryptandra pungens*, *Dianella revoluta*, *Diuris longifolia*, *Millotia tenuifolia*, *Pareitaria latifolia*, *Podotheca angustifolia*, *Ptilotus obovatus*subsp. *obovatus*, *Schoenus nanus*, *Stipa elegantissima*, *Trachymene cyanopetala*, *Thysanotus patersonii*subsp. *patersonii*, *Xanthorrhoea preissii*

No. of TAXA: 63

LAST BURNT: More than 80 years ago

MODIFICATION: None

#### LANDFORM

BEDROCK: Granite

UNIT: Granite exposure

GEOLOGICAL SURFACE: AgV

ELEMENT: Deeper soil sheets

#### SOIL

ORIGIN: Colluvial

DRAINAGE: Winter-wet, summer-dry

EROSION POTENTIAL: Wind - none, Water - Low.

SURFACE: Hardsetting

ROCK: None

STONE: None

PAVEMENT: None

LITTER: 5%, mostly terete leaves to 2cm deep.

SOIL PROFILE: No soil sample taken.

\*\*\*\*\*

SITE NO.: 134

SITE NAME: Granite Complex

LOCATION: Walyahmoning Rock , NW trig. point.(Lat. 30deg.38'S, Long.118deg.45'E)

DATE: 21-9-1982

Note: This data sheet was not as complete as others ; shrub height was often not given. The site consisted of thin sheets of soil, bare rock exposures, rock pools and damp areas associated with rock pools. As most of the plants are less than 0.5m in height, these are subdivided by habitat into "normal", "damp" and "pool".

#### VEGETATION

MUIR: Because of the fragmented nature of the site, consisting of four distinct habitat types, no overall Muir code can be determined. However the CC estimate for each species is included for an indication of comparative abundance, but only applies to the vegetation of that habitat type, not the whole site.

Stratum 1: Misc. plants 0.6 - 1.5m. (assumed)

CC=8

*Acacia ligulata*(1), *Acacia prainii*, *Brachycome pusilla*, *Exocarpos sparteus*, *Melaleuca laterifolia*, *Senecio glossanthus*, *Stackhousia huegelii*, *Acacia acuminata*(+), *A. tetragonaphylla*, *Amyema benthamii*, *Calytrix leschenaultii*, *Cryptandra pungens*, *Muehlenbeckia adpressa*, *Opercularia vaginata*, *Pittosporum phylliraeoides*, *Ptilotus obovatus* var. *obovatus*, *Rhagodia preissii*, *Xanthorrhoea preissii*, *Waitzia acuminata*

Stratum 2: Misc. plant <0.5m.

Normal drainage.

CC=24

*Borya nitida*(5), *Anagallis arvensis*(2), *Aristida contorta*, *Goodenia berardiana*, *Actinobolus uliginosum*(1), *Aira caryophyllea*, *Calandrinia granulifera*(1), *Eriachne ovata*, *Pentaschistis airoides*, *Podotheca lessonii*, *Spartochloa scorpoidea*, *Stylidium pusilla*, *Trachymene ornata*, *Drosera glandulifera*(0.5), *Lepidospermum viscidum*, *Quinetia urvillei*(0.2), *Stackhousia elata*, *Stypandra imbricata*, *Arthropodium* sp. KRN 9571 (0.1), *Cheilanthes* sp. KRN 7046, *Calandrinia calyptata*, *Goodenia tenellum*, *Levenhookia leptantha*, *Millotia tenuifolia*, *Pleurosorus rutilifolius*, *Podotheca angustifolia*, *Spiculea ciliata*, *Prasophyllum macrostachyum* var. *ringens*, *Toxanthes perpusilla*, *Ursinea anthemoides*, *Angianthus globifera*(+), *Caladenia deformis*, *C. filamentosa*, *C. roei*, *Cheilanthes austrotenuifolia*, *Chthonocephalus pseudevax*, *Crassula colorata*, *C. exserta*, *Daucus glochidiatus*, *Dianella revoluta*, *Glycine clandestina*, *Gonocarpus nodulosus*, *Helipterum hyalospermum*, *Hibbertia enervia*, *Hydrocotyle pilulifera* var. *glabrata*, *Hydrocotyle rugulosa*, *Isotoma petraea*, *Parentucellia latifolia*, *Podolepis capillaris*, *Pterostylis* sp. KRN 9598, *Sarcozona praecox*, *Thelymitra antennifera*, *T. nuda*, *Triglochin centrocarpa*, *Vittadinasp.* KRN 3375, *Wahlenbergia gracilento*.

Damp

CC=44

*Rutidosis multiflora*(30), *Gnephosis pygmaea*(5), *Drosera andersoniana*(3), *Triglochin calcytrapa*, *Angianthus globifera*(2), *Isolepis congrua*(1), *Cerastium glomeratum*(0.1), *Crassula pedicellosa*, *Isotoma hypocrateriformis*, *Centrolepis aristata* (+), *Levenhookia dubia*, *Melaleuca hamulosa*.

Pool

CC=45

*Isoetes australis*(30), *Glossostigma drummondii*(15), *G. trichoides*(1).

No. of TAXA: 90

LAST BURNT: Possibly never

MODIFICATION: None

LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: AgV

UNIT: Granite exposure

ELEMENT: Skeletal soil sheets

SOIL

ORIGIN: Colluvial

DRAINAGE: Winter-wet, summer-dry

EROSION POTENTIAL: None

SURFACE: Hardsetting

ROCK: 0 - 10% cover, patchy distribution

STONE: None

LITTER: None

PAVEMENT: 5 - 20% cover, even distribution. Main size range 2 - 10mm. DISTRIBUTION:

PROFILE THICKNESS: Skeletal.

\*\*\*\*\*



SITE NO.: 143

This is a photocopy from Dell *et al* (1985) in which this site description was published under the Jackson Report number JK36.

JK36 *Eucalyptus oldfieldii* Mallee

LOCATION: 8.5 km N of Walyahmoning Rock (30°34'20''S lat., 118°47'40''E long.)

FAUNA SAMPLED: No

DATE: 22-9-1982

## VEGETATION

MUIR: KSr.Sr.SBrSCc.SDr

- Stratum 1: Mallees 4-5 m, CC = 5.2, clumping slight *Eucalyptus oldfieldii* (5), *E. foecunda* (0.2).
- Stratum 2: Shrubs 2.1-3.5 m, CC = 9.5, clumping slight *Callitris preissii* ssp. *verrucosa* (3), *Hakea francisiana* (2), *Melaleuca uncinata* (2), *Acacia coolgardiensis* (1), *Allocasuarina corniculata* (1), *Leptospermum roei* (0.5), *Acacia signata* (+).
- Stratum 3: Shrubs 1.6-2.0 m, CC = 0.5, clumping none *Acacia* aff. *prainii* (0.5).
- Stratum 4: Shrubs 1.1-1.5 m, CC = 7.5, clumping slight *Baeckea elderiana* (3), *Malleostemon roseus* (3), *Euphorbia calycina* var. *calycina* (1), *Grevillea nematophylla* (0.5), *G. obliquistigma* (+).
- Stratum 5: Shrubs 0.6-1.0 m, CC = 34, clumping slight *Thryptomene kochii* (30), *Melaleuca cordata* (2), *Drummondita hassellii* (1), *Phebalium brachycalyx* (1).
- Stratum 6a: Shrubs 0.0-0.5 m, CC = 3.3, clumping slight *Baeckea carnosus* (2), *B. maidenii* (1), *Chamelaucium pauciflorum* (0.1), *Leucopogon* sp. (KRN 8374)(0.1), *B. grandibracteata* (+), *Glischrocaryon aureum* var. *angustifolium* (+).
- Stratum 6b: Misc. plants, CC = 0.7, clumping slight. Annuals: *Helichrysum lindleyi* (0.1), *Waitzia acuminata* (0.1).  
Perennial Grasses: *Enneapogon* sp. (KRN 7755)(0.5).

No. of TAXA: 28

LAST BURNT: &gt;50 years

MODIFICATION: None known or evident

## LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: (Ja) Ts

UNIT: Sandplain

ELEMENT: Not specific

## SOIL

BEDROCK: Deep Sands

NORTHCOTE: Uc4.31

MAIN ORIGIN: *In situ* weathering

DRAINAGE: Good

PROFILE ATTRIBUTE: Leached sand

SURFACE: Crusting and loose

ROCK: Nil

STONE: Nil

PAVEMENT: Nil

LITTER: Branches few; leaves broad, deposits 2 cm thick, 5-35 m apart; leaves terete, deposits 2 cm thick, 5-50 m apart.

## SOIL PROFILE

A 0-100 cm Strong brown sand; very friable.

## COMMENTS

DISTRIBUTION: Scattered in western sector, 2-20 ha

PROFILE THICKNESS: &gt;200 cm

GENERAL: Species richness varied from 19 to 28 and tended to decrease from W to E.

SANDPLAIN

SITE NO.: 141

SITE NAME: *Acacia coolgardiensis* tall shrubland

LOCATION: 9km NNE Walyahmoning Rock (Lat. 30deg.34'40", Long. 118deg.48'30")

DATE: 22-9-1982

## VEGETATION

Stratum 1: Mallee 3 - 4m.

*Eucalyptus leptopoda*(1), *E. oldfieldii*(+).

MUIR: Si.SCi

CC=1

Stratum 2: Shrubs &gt;2m.

*Acacia coolgardiensis*(20), *Callitris preissii* subsp. *verrucosa*(2), *Hakea francisiana*,  
*Acacia signata*(1), *Melaleuca* aff. *leptospermoides* KRN 8375 (0.5), *Allocasuarina corniculata*  
(+), *Hakea minyma*, *Melaleuca eleuterostachya*.

CC=26

Stratum 3: Shrubs 1.5 - 2m.

*Leptomeria roei*(0.5), *Acacia subrigida*(+), *Melaleuca uncinata*

CC=0.5

Stratum 4: Misc. plants &lt;1m.

*Thryptomene kochii*(15), *Melaleuca cordata*(2), *Phebalium* "megacalyx", *Enneapogon* sp.  
KRN 7755 (1), *Euphorbiaceae* "T14", *Waitzia acuminata*, *Wehlia thryptemenoides*  
*Chamelaucium pauciflorum*(0.2), *Drummondita hassellii*.

CC=23.4

No. of TAXA: 22

LAST BURNT: 40 to 50 years ago

MODIFICATION: None

## LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: Ts

UNIT: Gentle undulating plain

ELEMENT: Colluvial soil sheet

## SOIL

ORIGIN: In situ weathering

DRAINAGE: Normal

EROSION POTENTIAL: Wind - high, Water - none.

SURFACE: Crusting, and loose

ROCK: None

STONE: None

LITTER: A few branches, mostly terete leaves to 1cm deep, patchy distribution.

PAVEMENT: None

SOIL PROFILE: 0-100cm, A-horizon, loose to friable, upper 18cm slightly darkened by humus.

PROFILE THICKNESS: Deep, &gt;2m.

\*\*\*\*\*

SITE NO.: 140

SITE NAME: *Allocasuarina corniculata* tall shrubland

LOCATION: 7.5km NNE Walyahmoning Rock (Lat. 30deg. 35'20"S, Long. 118deg.48'E)

DATE: 22-9-1982

## VEGETATION

MUIR: Sr.SAi.SCr

Stratum 1: Shrubs &gt;2m.

CC=7

*Allocasuarina corniculata*(4), *Acacia victoriae*(1), *Allocasuarina acutivalvis*(2), *Acacia neurophylla*(1).

Stratum 2: Shrubs 1.6 - 2m.

CC=24

*Allocasuarina campestris* subsp. *campestris*(15), *Baeckea elderiana*(5), *Leptomeria roei*(2), *Calothamnus gilesii*(1), *Melaleuca uncinata*, *Grevillea paradoxa*(+).

Stratum 3: Shrubs 1.0 - 1.5m.

CC=0.5

*Phebalium filifolium*(0.5), *Acacia acuminata*(+).

Stratum 4: Shrubs .5 - 0.9m.

CC=3

*Prostanthera "aspalathoides"*(2), *Chamelaucium pauciflora*(1), *Drummondita hassellii*(+).

Stratum 5: Misc. plants &lt;0.5m.

CC+2.5

*Enneapogon* sp. KRN 7755 (1), *Hibberta glomerosa*(0.5), *Wehelia thryptemenoides*, *Borya constricta*(0.2), *Caladenia filamentosa*(0.1), *Waitzia acuminata*, *Thelymitra nuda*(+), *Trachymene cyanopetala*

No. of TAXA: 23

LAST BURNT: About 40 years ago

MODIFICATION: None

## LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: T1

UNIT: Gentle undulating plain

ELEMENT: Gravelly sands

## SOIL

ORIGIN: In situ weathering

DRAINAGE: Normal

EROSION POTENTIAL: None

SURFACE: Hardsetting

ROCK: None

STONE: None

LITTER: 30% cover, mostly teret leaves to 3cm deep. Distribution patchy.

PAVEMENT: Cover range 15 - 70%, distribution even, main size range 5 to 12mm.

SOIL PROFILE: 0 - 100cm deep, friable, 25-30% gravel of diameter 5-12mm. Clay content increasing slightly with depth.

PROFILE THICKNESS: Deep. &gt;2m.

\*\*\*\*\*

BROAD VALLEY

SITE NO.: 137

SITE NAME: Salmon gum woodland

LOCATION: 5.4 km NNE Walyahmoning Rock. (Lat. 30deg.36'40"S, Long. 118deg.46'40")

DATE: 22-9-1982

## VEGETATION

Stratum 1: Trees 16m.

*Eucalyptus Salmonophloia*(8).

MUIR: Mr.Sr.SAr.SDr

CC=8

Stratum 2: Trees 4 - 5m.

*Eucalyptus sheathiana*(1), *E. capillosa*(+).

CC=1

Stratum 3: Shrubs &gt;2m.

*Alyxia buxifolia*(1), *Exocarpos aphyllus*, *Santalum acuminatum* *Dodonaea viscosa*  
subsp. *angustifolia*(+).

CC=3

Stratum 4: Shrubs 1.6 - 2m.

*Acacia densiflora*(5), *A. colletioides*(0.2), *Cassia nemophila*(0.1), *Eremophila*  
*oppositifolia*var. *angustifolia*.

CC=5.4

Stratum 5: Shrubs 1.0 - 1.5m.

*Eremophila decipiens*(0.5), *Acacia auminata*(+), *Pittosporum phylliracoides*

CC=0.5

Stratum 6: 0.5 - 0.9m.

*Scaevola spinescens*(2), *Acacia erinacea*(1), *Amyema miquelii*(0.2), *A. preissii*  
*Acacia hemiteles*(+), *Westringia cephalantha*.

CC=3

Stratum 7: Misc. plants &lt;0.5m.

*Eremophila drummondii*(2), *Gilruthia osbornii*(1), *Olearia muelleri*, *Sclerolaena*  
*diacantha* *Chthonocephalus pseudovax*(0.2), *Maireana carnosae*, *M. georgei*, *M. trichophylla*,  
*Olearia exiguiifolia*, *Pentastichis airoides*, *Actinobolus uliginosus*(0.1), *Atriplex nummularia*  
, *A. vesicaria*, *Danthonia setacea*, *Helipterum hyalospermum*, *H. pygmaeus*, *Rhagodia*  
*drummondii*, *Sclerolaena drummondii*, *Velleia cynnopotamica*, *Calandrinia calcitrapa*(+),  
*Ceratogyne obionoides*, *Crassula exserta*, *Daucus glochidiatus*, *Goodenia berardiana*, *Exocarpos*  
*aphyllus*, *Helipterum lindleyi*, *H. tepperi*, *Maireana trichoptera*, *Menkea australis*, *Plantago*  
*debilis*, *Podolepis capillaris*, *Ptilotus holosericeus*, *Sclerolaena parviflora*, *Stenopetalum*  
*filifolium*, *Stipa elegantissima*, *S. trichophylla*, *Thysanotus patersonii*subsp. *patersonii*, *T.*  
*specki*, *Toxanthes perpusilla*, *Trachymene cyanopetala*, *Westringia cephalantha*, *Waitzia*  
*acuminata*.

CC+7

No. of TAXA: 62

LAST BURNT: &gt;120 years ago

MODIFICATION: None

## LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: Qc

UNIT: Valley bottom

ELEMENT: Colluvial flat

## SOIL

ORIGIN: Colluvial

DRAINAGE: Normal

EROSION POTENTIAL: Wind -low, water - none.

SURFACE: Crusting

ROCK: None

STONE: None

LITTER: 10% cover, a few branches, trunks and broad leaves PAVEMENT: None

SOIL PROFILE: Calcareous loams. 0 - 8cm, friable, boundary even, diffuse. 8 - 83cm firm. Too  
dry to auger deeper.

PROFILE THICKNESS: Deep. &gt;2m.

\*\*\*\*\*

SITE NO.: 142 SITE NAME: *Eucalyptus salubris* low woodland  
 LOCATION: 9km NE Walyahmoning Rock (Lat. 30deg. 35'15"S, Long. 118deg. 49"10")

DATE: 22-9-1982

VEGETATION

MUIR: LAi.Sr.SCr.SDr

Stratum 1: Trees 15m.

CC=1

*Eucalyptus salmonophloia*(1)

Stratum 2: Trees 8m.

CC=12

*Eucalyptus salubris*(12)

Stratum 3: Shrubs >2m.

CC+4

*Eremophila oppositifolia*var. *angustifolia*(2), *Exocarpos aphyllus*(1), *Santalum acuminatum* *Acacia acuminatum*(+).

Stratum 4: Shrubs 1 - 2m.

CC+1

*Cassia cardiosperma*(1), *Atriplex nummularia*(+), *Eremophila decipiens*

Stratum 5: Shrubs 0.5 - 0.9m.

CC=6

*Acacia erinacea*(5), *Eremophila drummondii*(0.5), *Scaevola spinescens*.

Stratum 6: Misc. plants <0.5m.

CC=9.6m.

*Erymophyllum ramosum*subsp. *ramosum*(3), *Maireana carnososa*(2), *Maireana georgei* (1), *M. triptera*, *Sclerolaena diacantha*, *Atriplex vesicaria*(0.5), *Maireana trichoptera*(0.2), *Olearia muelleri*, *Pentaschistis airoides*, *Helipterum hyalospermum*(0.1), *H. pygmaeum*, *Maireana thesioides*, *Sclerolaena drummondii*, *Stellaria filiformis*, *Amyema preissii*(+), *Danthonia setacea*, *Enchylaena tomentosa*, *Erodium crinitum*, *Hydrocotyle pilifer*var. *glabrata*, *Maireana appessa*, *Plantago debilis*, *Ptilotus exultatus*var. *exultatus*, *P. holosericeus*, *P. obovatus*var. *obovatus*, *P. spathulata*, *Rhagodia drummondii*, *Senecio glossanthus*, *Stipa elegantissima*, *Trachymene cyanopetala*

No. of TAXA: 41

LAST BURNT: >75 years ago

MODIFICATION: None

LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: Qc

UNIT: Valley bottom

ELEMENT: Colluvial flat - sump surrounded by breakaway

SOIL

ORIGIN: In situ weathering

DRAINAGE: Normal

EROSION POTENTIAL: Wind - low, water - none.

SURFACE: Crusting

ROCK: None

STONE: None

LITTER: 12% cover, a few

branches, trunks, mostly broad leaves to 3cm deep, patchy distribution.

PAVEMENT: 0 -5% cover, patchy distribution, size range 3 - 12mm., angular.

SOIL PROFILE: Calcareous loam. 0 - 17cm, 2 - 5% quartzite, 3 -8mm diameter. Boundary even, diffuse. 17 - 93cm firm. Too hard to auger deeper.

PROFILE THICKNESS: Deep. >2m.

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SITE NO.: 139

This is a photocopy from Dell *et al* (1985) in which this site description was published under the Jackson Report number JK49.

JK49 *Eucalyptus sheathiana* Low Woodland

LOCATION: 6 km NNE of Walyahmoning Rock (30°35'40''S lat., 118°48'20''E long.)

FAUNA SAMPLED: No

DATE: 22-9-1982

## VEGETATION

MUIR: LAi.KSr.Sr.SCr.SDr

- Stratum 1: Trees 5-8 m, CC = 13, clumping slight *Eucalyptus sheathiana* (8), *E. wandoo* (5).
- Stratum 2: Mallees 4-5 m, CC = 5, clumping slight *Eucalyptus eremophila* (5).
- Stratum 3: Shrubs 2.1-2.2 m, CC = 4.7, clumping slight *Melaleuca uncinata* (4), *Alyxia buxifolia* (0.5), *Exocarpos aphyllus* (0.2).
- Stratum 4: Shrubs 1.6-2.0 m, CC = 0.5, clumping slight *Dodonaea angustissima* (0.5), *Melaleuca eleuterostachya* (+).
- Stratum 5: Shrubs 1.1-1.5 m, CC = 1.1, clumping slight *Daviesia benthamii* ssp. *benthamii* (1), *Beyeria brevifolia* var. *brevipes* (0.1), *Olearia* sp. (KRN 7153)(+).
- Stratum 6: Shrubs 0.6-1.0 m, CC = 3.5, clumping slight *Olearia revoluta* (2), *Grevillea huegelii* (0.5), *Phebalium lepidotum* var. *lepidotum* (0.5), *Acacia hemiteles* (0.5), *Amyema preissii* parasite on *G. huegelii* (+).
- Stratum 7a: Shrubs 0.0-0.5 m, CC = 5.6, clumping slight *Dodonaea bursarifolia* (2), *Westringia rigida* (2), *W. cephalantha* (1), *Acacia densiflora* (0.5), *A. erinacea* (+), *Rhagodia drummondii* (+).
- Stratum 7b: Misc. plants, CC = 1.5, clumping slight. Annuals: *Helichrysum lindleyi* (0.4), *Podolepis capillaris* (0.2), *Actinobole uliginosum* (0.1), *P. canescens* (0.1), *Stenopetalum filifolium* (0.1), *Trachymene cyanopetala* (0.1), *Levenhookia leptantha* (+), *Podotheca angustifolia* (+), *Poranthera microphylla* (+), *Ptilotus drummondii* var. *drummondii* (+), *Waitzia acuminata* (+).  
Perennial Grasses: *Stipa eremophila* (0.2), *Enneapogon* sp. (KRN 7755)(+), *Monachather paradoxa* (+), *S. elegantissima* (+).

No. of TAXA: 37

LAST BURNT: &gt;70 years

MODIFICATION: None known or evident

## LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: (Ja) Qc

UNIT: Broad Valley

ELEMENT: Valley bottom

## SOIL

GROUP: Deep Calcareous Earths

NORTHCOTE: Gn2.16

MAIN ORIGIN: Colluvial

DRAINAGE: Good

PROFILE ATTRIBUTE: Calcareous B

SURFACE: Crusting and loose

ROCK: Nil

STONE: Nil

PAVEMENT: Nil

LITTER: Trunks few; branches few; leaves broad, deposits 2 cm thick, 5-8 m apart.

## SOIL PROFILE

A 0-28 cm Reddish brown loamy sand; loose.

B 28-76 cm 'Dull brown' clayey sand; firm; pH 8.0; not calcareous; too dry to auger deeper.

## COMMENTS

DISTRIBUTION: South-western sector, rare, 2-5 ha

SITE NO.: 138

SITE NAME: York gum mallee

LOCATION: 5.6km NNE of Walyahmoning Rock (Lat. 30deg. 36'10"S, Long. 118deg.47'50"E)

DATE: 22-9-1982

## VEGETATION

MUIR: KTi.Sr.SBr (Note: "KT" may not be correct as actual notation was "TS")

Stratum 1: Mallee 6m

CC=26

*Eucalyptus loxophleba*(25), *E. sheathiana*(1).

Stratum 2: Shrubs &gt;2m.

CC=7.2

*Acacia acuminata*(3), *Dodonaea viscosasubsp. angustifolia*(2), *Exocarpos aphyllus* (1), *Santalum acuminatum*, *Alyxia buxifolia*(0.2).

Stratum 3: Shrubs 1 - 1.8m.

CC=6.2

*Acacia densiflora*(6), *A. colletioides*(0.5), *Cassia nemophila*(0.4), *Eremophila decipiens* (0.2), *Atriplex nummularia*(+), *Pittosporum phylliraeoides*

Stratum 4: Misc. plants 0.5 - 0.9m.

CC=1.1

*Scaevola spinescens*(1), *Acacia erinacea*(+), *A. hemiteles*, *Amyema preissii*, *Olearia propinqua*, *Stipa elegantissima*, *Templetonia sulcata*.

Stratum 5: Misc. plants &lt;0.5m.

CC=13

*Olearia exiguifolia*(4), *Enneapogon*sp. KRN 7755 (2), *Olearia muelleri*, *Calandrinia granulifera*(1), *Podolepis capillaris*, *Rhagodia drummondii*(0.5), *Trachymene cyanopetala*, *Podolepis lessonii*(0.4), *Atriplex vesicaria*(0.2), *Goodenia berardiana*, *Eremophila drummondii*, *Levenhookia leptantha*, *Pentaschistis airoides*, *Stipa eremophila*, *S. trichophylla*, *Velleia cynopotamica*, *Actinobolus uliginosum*, *Bromus arenarius*, *Daucus glochidiatus*, *Erodium cicutarium*, *Helipterum lindleyi*, *H. pygmaeum*, *Hydrocotyle piluliferavar. glabrata*, *Maireana trichoptera*, *Sclerolaena drummondii*, *Senecio glossanthus*, *Stenopetalum filifolium*, *Podolepis canescens*, *Brachycome iberidifolia*, *Enchylaena tomentosa*, *Gilruthia obornii*, *Helipterum hyalospermum*, *H. tepperi*, *H. rubellum*, *Lepidosperma oxytrichum*, *Maireana carnosae*, *M. georgei*, *Monochather paradoxa*, *Ophioglossum lusitanicum*, *Parietaria debilis*, *Podotrochea angustifolia*, *Ptilotus drummondii var. drummondii*, *P. gaudichaudii var. gaudichaudii*, *P. holosericeus*, *Schoenus cassinianum*, *Sclerolaena diacantha*, *Thysanotus speckii*.

No. of TAXA: 68

LAST BURNT: &gt;100 years ago MODIFICATION: None

## LANDFORM

BEDROCK: Granite

GEOLOGICAL SURFACE: Qc

UNIT: Valley bottom

ELEMENT: Not stated

## SOIL

ORIGIN: Colluvial

DRAINAGE: Normal

EROSION POTENTIAL: Wind - moderate; water - none

SURFACE: Crusting

ROCK: None

STONE: None

PAVEMENT: None

LITTER: 10% cover, a few branches and trunks, broad leaves to 2cm deep, patchy distribution.

SOIL PROFILE: Calcareous loam. 0 - 30cm Horizon A, friable, boundary even, diffuse. 30 - 77cm + Horizon B. Firm. Too dry to auger deeper.

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Table 3FLORA LIST

## Plant Names

Species are listed alphabetically, first by family then genus and species. Nomenclature follows that used by the Western Australian Herbarium (Perth), based largely on Green (1985). Species believed to be un-named are referenced by a Ken Newbey (KRN) collecting number and voucher specimens are lodged in the Western Australian Herbarium. A few species are listed by code name only as the correct name could not be determined from the KRN notes. If a species has been recorded under a different name in Dell *et al.* (1985), the name used in Dell *et al.* appears after the author, in square brackets.

## Additional Records

Three records supplied by Judith Brown (JB) from a brief visit to the southern edge of Walyahmoning Rock Reserve on 30 September, 1982, and one from a visit by Stephen Hopper (SDH) to the west side of the rock on 5/6 September, 1978, are included. These are distinguishable by their respective initials placed just to the left of the frequency/abundance section of the table, and a lack of frequency/abundance information.

## Family names

Family names that have changed since the publication of Dell *et al.* (1985) are marked with an asterisk (\*).

## Authors

Taxonomic authors are listed only if the species has been renamed since the publication of Dell *et al.* (1985) or if the species was omitted from Dell *et al.* (1985).

## Table Layout

Species are listed by landform units, the vegetation types occurring on each unit. On each site, species were subjectively assessed for frequency and abundance. The RH column gives a subjective estimation by KRN of the conservation status of the species within the reserve.

LANDFORM	UNITS
B... ..	Breakaway
G... ..	Granite exposure
S... ..	Sandplain
V... ..	Broad Valley



## VEGETATION TYPE

Code		Field site no.
EW... ..	<i>Eucalyptus capillosa</i> (wandoo) low woodland	136
YG... ..	<i>Eucalyptus loxophleba</i> (york gum) mallee	131
AJ... ..	<i>Acacia jibberdingensis</i> tall shrubland	132
MI... ..	Mixed tall shrubland	133
GC... ..	Granite complex	134
EO... ..	<i>Eucalyptus oldfieldii</i> mallee	143
AC... ..	<i>Acacia coolgardiensis</i> tall shrubland	141
AS... ..	<i>Allocasuarina corniculata</i> tall shrubland	140
SG... ..	<i>Eucalyptus salmonophloia</i> (salmon gum) woodland	137
ES... ..	<i>Eucalyptus salubris</i> low woodland	142
SH... ..	<i>Eucalyptus sheathiana</i> low woodland	139
YG... ..	<i>Eucalyptus loxophleba</i> mallee	138

## FREQUENCY AND ABUNDANCE

## Frequency

a... ..	1 or 2 populations
b... ..	Few populations
c... ..	Scattered populations
d... ..	Frequent populations
e... ..	Common populations

## Abundance

1... ..	1 or 2 plants
2... ..	Few plants
3... ..	Few plants to 1% canopy cover
4... ..	1-5% canopy cover
5... ..	6-30% canopy cover
6... ..	31-70% canopy cover

CONSERVATION STATUS (cs):- Adequately represented (A); Less than adequately represented or not known(.).

SPECIES	B		G			S			V			cs
	E W	Y G	AJ	M I	G C	E O	A C	A S	S G	ES H	S H	
ADIANTACEAE												
<i>Cheilanthes austrotenuifolia</i>	.	.	.	.	b1	.	.	.	.	.	.	.
<i>Cheilanthes</i> sp. KRN 7046	.	.	.	.	c3	.	.	.	.	.	.	.
AIZOACEAE												
<i>Gunniopsis rubra</i>	a2	a2	.	.	.	.	.	.	.	.	.	.
<i>Sarcozona praecox</i>	.	.	.	.	c1	.	.	.	.	.	.	.
AMARANTHACEAE												
<i>Ptilotus drummondii</i> var. <i>drummondii</i>	.	.	.	.	.	.	.	.	.	d2	b1	.
<i>Ptilotus exultatus</i> var. <i>exultatus</i>	.	.	.	.	.	.	.	.	.	d2	.	.
<i>Ptilotus gaudichaudii</i> var. <i>gaudichaudii</i>	.	.	.	.	.	.	.	.	.	.	c2	.
<i>Ptilotus holosericeus</i>	.	.	.	.	.	.	.	.	c1	c2	.	c2 A
<i>Ptilotus obovatus</i> var. <i>obovatus</i>	.	.	.	.	.	.	.	.	.	c2	.	.
<i>Ptilotus spathulatus</i> var. <i>spathulatus</i>	.	.	.	.	.	.	.	.	.	b1	.	.
ANTHERIACEAE *												
<i>Arthropodium</i> sp. KRN 9571	.	.	.	.	c2	.	.	.	.	.	.	.
<i>Borya nitida</i>	.	.	.	.	c4	.	.	.	.	.	.	A
<i>Borya constricta</i> D.M.Churchill [aff. <i>nitida</i> ]	.	.	.	.	.	.	.	d3	.	.	.	A
<i>Thysanotus patersonii</i> subsp. <i>patersonii</i>	.	e2	.	c2	.	.	.	.	c1	.	.	.
<i>Thysanotus speckii</i>	.	.	.	.	.	.	.	.	a1	.	b1	b1 .

SPECIES	B		G			S			V				
	E W	Y G	AJ	M I	G C	E O	A C	A S	S G	ES	S H	Y G	cs
APIACEAE													
<i>Daucus glochidiatus</i>	.	.	.	.	a2	.	.	.	c2	.	.	d3	A
<i>Hydrocotyle callicarpa</i>	.	.	.	d3	.	.	.	.	.	.	.	.	.
<i>Hydrocotyle pilifera</i> var. <i>glabrata</i>	c2	.	.	.	b3	.	.	.	.	c2	.	d3	A
<i>Hydrocotyle rugulosa</i>	.	.	.	.	a3	.	.	.	.	.	.	.	.
<i>Trachymene cyanopetala</i>	.	c2	.	b2	.	.	.	c2	c2	d2	e3	e3	A
<i>Trachymene ornata</i>	.	.	.	d3	d3	.	.	.	.	.	.	.	A
<i>Trachymene pilosa</i>	c2	.	.	.	.	.	.	.	.	.	.	.	.
APOCYNACEAE													
<i>Alyxia buxifolia</i>	d1	.	.	.	.	.	.	.	c3	.	e3	e3	A
ASTERACEAE													
<i>Actinobole uliginosum</i>	c2	e3	.	.	d3	.	.	.	d3	.	e3	e2	A
<i>Blennospora drummondii</i>	c2	.	.	b3	c3	.	.	.	.	.	.	.	.
<i>Brachycome iberidifolia</i>	.	.	.	.	.	.	.	.	.	.	.	b1	.
<i>Brachycome pusilla</i>	.	.	.	d3	.	.	.	.	.	.	.	.	.
<i>Calocephalus angianthoides</i>	.	d3	.	.	.	.	.	.	.	.	.	.	.
<i>Calotis hispidula</i>	c1	.	.	.	.	.	.	.	.	.	.	.	.
<i>Ceratogyne obionoides</i>	a1	.	.	.	.	.	.	.	a1	.	.	.	.
<i>Chrysocoryne pusilla</i>	.	.	.	c3	.	.	.	.	.	.	a3	.	A
<i>Chrysocoryne uniflora</i>	.	c3	.	.	.	.	.	.	.	.	.	.	.
<i>Chthonocephalus pseudevax</i>	b1	.	.	.	b2	.	.	.	c3	.	.	.	A
<i>Erymophyllum ramosum</i> subsp. <i>ramosum</i> Paul G. Wilson [ <i>Helipterum</i> sp. KRN 7727]	b3	.	.	.	.	.	.	.	.	e4	.	.	A
<i>Giluthia osbornii</i>	c3	.	.	.	.	.	.	.	c3	.	.	a2	.
<i>Gnephosis pygmaea</i>	.	.	.	.	a3	.	.	.	.	.	.	.	.
<i>Helichrysum lindleyi</i>	a1	b1	.	.	.	c3	.	.	b2	.	e3	d3	A
<i>Helichrysum tepperi</i>	.	.	.	.	.	.	.	.	c2	.	.	d2	.
<i>Helipterum demissum</i>	d2	.	.	.	d3	.	.	.	.	.	.	.	A
<i>Helipterum hyalospermum</i>	.	.	.	.	a2	.	.	.	b2	c3	.	c2	A
<i>Helipterum laeve</i>	a2	.	.	.	.	.	.	.	.	.	.	.	.
<i>Helipterum pymacum</i>	.	.	.	b3	.	.	.	.	c3	d3	.	d3	A
<i>Helipterum rubellum</i>	.	.	.	.	.	.	.	.	.	.	.	a2	.
<i>Hyalochlamys globifera</i>	.	.	.	.	a2	.	.	.	.	.	.	.	.
<i>Millotia tenuifolia</i>	c1	.	.	b3	d3	.	.	.	.	.	.	.	A
<i>Olearia exiguifolia</i>	b2	.	.	.	.	.	.	.	d3	.	a1	d5	.
<i>Olearia muelleri</i>	d3	c3	.	.	.	.	.	.	c3	e3	.	e4	A
<i>Olearia propinqua</i>	d1	.	.	.	.	.	.	.	.	.	.	d2	.
<i>Olearia revoluta</i>	.	.	.	.	.	.	.	.	.	.	e4	.	.
<i>Podolepis canescens</i>	.	.	.	b3	.	.	.	.	.	.	c3	d3	.
<i>Podolepis capillaris</i>	e2	e2	.	.	b1	.	.	.	e2	.	c3	e3	A
<i>Podolepis lessonii</i>	b1	.	.	.	d4	.	.	.	.	.	.	e2	A
<i>Podotrochea angustifolia</i>	.	.	.	b2	c2	.	.	.	.	.	d2	d1	.
<i>Quinetia urvillei</i>	.	.	.	.	b3	.	.	.	.	.	.	.	.
<i>Rutidosia multiflora</i>	.	.	.	.	d3	.	.	.	.	.	.	.	.
<i>Schoenia cassiana</i>	.	.	.	.	.	.	.	.	.	.	.	b1	.
<i>Senecio glossanthus</i>	.	.	.	d3	.	.	.	.	.	c2	.	c2	.
<i>Toxanthes perpusillus</i>	.	.	.	.	b3	.	.	.	b2	.	.	.	.
<i>Ursinea anthemoides</i>	.	.	.	.	b3	.	.	.	.	.	.	.	.
<i>Vittadinia</i> sp. KRN 3375	.	.	.	.	a2	.	.	.	.	.	.	.	.
<i>Waitzia acuminata</i>	d3	.	.	d3	.	e3	e3	d2	b2	.	b2	.	A
BRASSICACEAE													
<i>Lepidium genistoides</i>	.	a4	.	.	.	.	.	.	.	.	.	.	.
<i>Lepidium oxytrichum</i>	.	.	.	.	.	.	.	.	.	.	.	c2	.
<i>Lepidium rotundum</i>	.	.	.	.	.	.	.	.	.	.	.	c1	.
<i>Menkea australis</i>	c2	.	.	.	.	.	.	.	c2	.	.	.	.
<i>Stenopetalum filifolium</i>	c2	.	.	.	.	.	.	.	c2	.	e3	e3	A















SPECIES	B		G			S			V				
	E W	Y G	AJ	M I	G C	E O	A C	A S	S G	ES	S H	Y G	cs
STYLIDIACEAE													
Levenhookia dubia	.	.	.	.	a3	.	.	.	.	.	a2	.	.
Levenhookia leptantha	b2	e2	.	.	c3	.	.	.	.	.	.	d3	A
Stylidium perpusillum	.	.	.	.	b3	.	.	.	.	.	.	.	.
THYMELACEAE													
Pimelea suavcolens	a1	.	.	.	.	.	.	.	.	.	.	.	.
Pimelea aff. modesta KRN 9538	a1	.	.	.	.	.	.	.	.	.	.	.	.
URTICACEAE													
Parietaria debilis	.	.	.	.	.	.	.	.	.	.	.	a2	.
VIOLACEAE													
Hybanthus sp. KRN 8668	a2	.	.	.	.	.	.	.	.	.	.	.	.
XANTHORRHOEACEAE *													
Xanthorrhoea preissii	.	.	.	a1	.	.	.	.	.	.	.	.	.

\*\*\*\*\*

## CONSERVATION

Some of the species occurring in WRNR are listed in Table 4 Dell *et al* (1985) "Important plant collections from the study area".

These are *Burtonia* sp. KRN 9544, *Dampiera* sp. KRN 9546, *Gunniopsis rubra*, *Hybanthus* sp. KRN 8668, *Lepidium genistoides*, *Pomaderris intangenda*, *Ricinocarpus* aff. *muricatus* KRN 9559.

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APPENDIX 1

KRN Field Notebook entries for specimens collected at Walyahmoning Rock Nature Reserve on 20 to 22 September, 1982.

9542 *RULINBIA* sp. <sup>JA</sup> 20/9  
 Loc: <sup>ca 5 km NW of BULIPUNCH</sup> 5 km SSE of WALTAMONING  
 ROCK (NR).

Hab: MLE flat plain  
 S: w/d deep yellow sand  
 EC: E. Leptopoda KSn 2P  
 H: L/S - M/O - 1 perennal <sup>woody</sup> shrub  
 S: 5-12 cm x 40-50 cm  
 Lvs dull dark green; calyx lobes + petals cream.

0

9543 *PULTENAEA* sp. <sup>JA</sup> 20/9  
 Loc: hab soil as 9542

EC: EOC. LEPTOPODA KSn 1  
 H: S - M/O -  $\frac{3}{4}$  perennal <sup>woody</sup> shrub  
 S: 30-35 x 25-30 cm  
 Lvs dull L blue-green; standard yellow slightly tinged with orange; orange-red throat & keel

0 check for others (only stems)

9544 *BURTONIA* sp. <sup>JA</sup> 20/9  
 Loc: hab soil as 9542

EC: E. leptopoda KSn +

H: S - M/O - 1 perennal <sup>woody</sup> shrub  
 S: 20-25 x 20-25 cm  
 Lvs light green; standard L pink, small light green throat; keel reddish purple  
 KLOTZSCH

9545 <sup>0</sup> *PORANTHERA MONOTACTIS* *ERICOIDES* sp. <sup>JA</sup> 20/9  
 Loc: hab soil as 9542

EC: E. LEPTOPODA KSn 1  
 H: L/S - M -  $\frac{2}{3}$  perennal <sup>woody</sup> shrub  
 S: 8-10 x 10-12 cm  
 Lvs dull M green; petals dull white

0 "RIGIDA"

9546 *DAMPiera* sp. <sup>JA</sup> 20/9  
 Loc: hab soil as 9542

EC: E. LEPTOPODA KSn 3P  
 H: U/S <sup>M/O</sup> leafless perennal <sup>woody</sup> shrub  
 S: 40-45 x 25-30 cm  
 Branches light dark green; corolla lobes dull light blue

9552 ACACIA sp. P30 off PRAIRIE 2/9  
 Loc: 1.5 K NE of WAKYAHMONING ROCK  
 Herb: M/E almost flat plain  
 S: w/D deep yellow sar  
 Ec: Ac. Gulgadum Si 2P  
 H: U/S - M/D - 3/4 perennial woody shrub  
 S: 1.3-1.7 x 1.1-1.5

Phyllodea dull green; fls dull golden yellow  
 different to Karone sp.  
 9553 ACACIA ? DURIOSCULA W.V. FITZG. 2/9 JA  
 Loc: 0.3 K E of WAKYAHMONING ROCK  
 Herb: Subdued breakaway  
 S: w/D GLC  
 Ec: WLAi 2P  
 H: S-M-3/4 perennial woody shrub  
 S: 0.7-0.8 x 1.0 - 1.3

Phyllodea dull dark green

(F. Muell) E. Pt.  
 9554 PTYRERIA TEKTIANA 2/9 JA  
 Loc: 60 K NW of BURLEIGH WAKYAHMONING ROCK  
 Herb: Soil sheets on exposure  
 S: M/D granite LS  
 Ec: X Sr 2P  
 H: U/S - M/D - 3/4 perennial woody shrub  
 S: 0.8-1.0 x 0.4-0.5

lvs dull dark green; corolla white & mauve (SITE RECORD)

9555 LEPTOSPERMUM ERUBESCENS 2/9 JA  
 Loc: hab soil as 9554  
 Ec: X Si 1

H: U/S - M - 3/4 perennial woody shrub  
 S: 1.8-2.2 x 1.0-1.3

leaves dull green; petals pink to pink white (SITE RECORD)

~~ssp. TUBERCULOSUM~~  
 9556 PHEBAKION TUBERCULOSUM 2/19  
JA  
 Loc: 4-8 Km NNE of VALTAMONING ROCK  
 Hab: edge of subdued heathway  
 S: W 10 L/S  
 EC: W. LAi 2P  
 H: 5-11 -  $\frac{2}{3}$  perennial woody shrub  
 S: 50-60 x 60-80cm  
 Lvs dull dark green; Petals  
 dull L yellow (SITE RECORD)

9557 PATERSONIA UMBROSA 2/19  
JA  
 Loc hab same as above  
 EC: W LAi +  
 H: 5 tufted perennial  
 S: 20 x 25cm  
 Lvs dull M blue-green; Petals  
 dull L purple. (SITE RECORD)

9558 ACACIA DENTIFERA 2/19  
JA  
 Loc hab same as 9554

EC: XSi 3P  
 H: 5-11 -  $\frac{2}{3}$  perennial woody shrub  
 S: 1.7-2.0 x 1.5-1.8m  
 Lvs dull M green; fls dull gold  
 yellow (SITE RECORD)

10th in PERTH. MUGILLI ARK.  
 9559 RICINOCARPUS aff. MURICATUS 2/19  
JA  
 Loc hab same as 9554  
 EC: XSi +  
 H: 1/5-11/0 -  $\frac{2}{3}$  perennial <sup>woody</sup> shrub  
 S: 1.6 x 1.3m  
 Lvs <sup>glossy</sup> dark green; fls  
 L greenish yellow (SITE RECORD)

9560 MENAKEUKA RADUKA

JA  
2/19

loc hab soil as 9554

EC: XSt 1

H: S-M- $\frac{3}{4}$  perennial <sup>woody</sup> shrub

S: 0.8-0.9 x 1.0-1.2m

ln dull light green; leaves  
& narrow. (SITE RECORD)9561 POMADERIS N F. Muell.  
SPYRIDOLENT INTAGENDA JA  
2/19

loc hab soil as 9554

Acacia 9562  
EC: Sc 3H: 4/5-M/0- $\frac{3}{4}$  perennial <sup>woody</sup> shrub

S: 1.0-1.2 x 0.8-1.0m

ln dull dark green (SITE RECORD)

M & B ✓ JA  
9562 ACACIA SIBBERDINGENSIS 2/19

loc hab soil as 9554

EC: Acacia 9562 Se 5

H: S-M/0- $\frac{3}{4}$  perennial <sup>woody</sup> shrub

S: 2.5-3 x 2.6-3.2m

Phyllodes dull dark green (SITE RECORD)

9563 BUICHENOTIA MACRANTHA

JA  
2/19

loc hab soil as 9554

EC: Acacia 9562 Se 1

H: 4/5-0- $\frac{1}{2}$  perennial woody shrub

S: 0.9-1.1 x 0.8-0.8m

ln dull light green blue (SITE RECORD)

9564 ACACIA RESTIACEA BENTH. JA  
2/19

loc hab soil as 9554

EC: Acacia 9562 Se 2

H: S-M/0- perennial <sup>leafless</sup> woody shrub

S: 0.7-0.9 x 0.8-1.0m

Brachlets dull green; fls  
dull deep <sup>golden</sup> yellow (SITE RECORD)

9565 THRYPTOMENE AUSTRALIS <sup>SA</sup> 2/19

loc hab soil as 9554

EC: x Sr 4P

H: L/S-M/D -  $\frac{3}{4}$  perennial <sup>shl</sup> woody

S: 0-7-0-9 x 1-0-1.5m

L: dull M green; buds L (red)  
petals white (SITE RECORD)9566 BRIZA MINOR <sup>SA</sup> 2/19

loc hab soil as 9554

EC: Sr +

H: U/S-M annual grass

L: supfl dull green

S: 10-18cm (SITE RECORD)

9567 PARENTUCELLA  
LATIFOLIA <sup>SA</sup> 2/19

loc hab soil as 9554

EC: x Sr +

H: U herbaceous annual

S: 6-7cm

L: stem dull M green; flo deep  
reddish. (SITE RECORD)9568 ISOTOMA HYPOCRATERIFORMIS <sup>SA</sup> 2/19

loc hab soil as 9554

EC: x Sr 3P

H: upright <sup>offshy</sup> geophyte annual

S: 12-15cm

Plant dull M green (SITE RECORD)

9569 CARADENIA BARBAROSSA <sup>SA</sup> 2/19

loc hab soil as 9554

EC: x Sr (H plant)

H: U herbaceous geophyte

S: 10cm (SITE RECORD)

9570 DIURIS LONGIFOLIA

JA  
21/9

Loc hab soil as 9554

EC: x Sr +

H: U herbaceous geophyte

S: 12-18cm (SITE RECORD)

9571 ARTHROPODIUM sp.

JA  
21/9

Loc hab soil as 9554 (SITE RECORD)

EC: (G) +

H: U/S - 0 herbaceous geophyte

S: 20-25cm

Lvs dull green; scape dark  
green tinged brown; <sup>perianth</sup> segments  
dull dark brown; <sup>anthers</sup> dull  
yellow

9572 HIBBERTIA GLOMERATA

JA  
21/9/82

Loc hab soil as 9554

EC: x Sr 3P

H: U/S - M/O -  $\frac{3}{4}$  perennial woody shrub

S: 20-35cm x 10 x 30cm

Leaves dull light green; petals  
dull M yellow (SITE RECORD)20th collection - BENCUBBIN NUKINBUDIN  
HEWSON

9573 LEPIDIUM GENISTOIDES

JA  
21/9

Loc hab soil as 9554

EC: YG-KSi 4P

H: L/S - M -  $\frac{2}{3}$  perennial woody shrub

S: 25-35 x 25-35cm

Branches + lvs bright dark green;  
petals white (SITE RECORD)

9574 CALADENIA DEFORMIS

JA  
21/9

Loc hab soil as 9554

EC: (G) + 1 flat

H: U geophyte

S: Per

Petals + sepals dull blue (SITE RECORD)



9575 LEUCOPOGON sp.

JA  
22/9

Loc: 9.5 Km NNE of WALYATHMORING

ROCK 14.5 Km NW of BULLFINCH <sup>30° 34' 20" S</sup> <sup>118° 46' 50" E</sup>

Habit: skeletal sachs on Karoongas

S: V/O L/S

EC: WLA 1 + (1)

H: C/S - M/O -  $\frac{2}{3}$  perennial <sup>woody</sup> shrub

S: 50 x 90 cm

Lvs dull light green

9576 BAECKEA GRANDIBRACTEATA <sup>E. PRITZEL</sup> <sup>JA</sup>  
Loc: 8.5 Km N of WALYATHMORING-ROCK <sup>30° 34' 20" S</sup> <sup>118° 46' 50" E</sup>

Habit: almost flat ph

S: w/O deep yellow sachs

EC: E-ORDFIELD 11 KSA 1

H: L/S - M -  $\frac{3}{4}$  perennial woody shrubS: 15-20 x 25-~~40~~<sup>35</sup> cmLvs light green, petals whitish  
white tinged pink (SITE RECORD)9577 LEUCOPOGON aff. BREVIFLORUS <sup>JA</sup>

Loc: hab sachs 9575

EC: WLA 1

H: S - M/O -  $\frac{2}{3}$  perennial woody shrub

S: 40-45 x 35-50 cm

leaves dull green

① WRIXONIA PROSTANTHESOIDES <sup>F. Muell.</sup>  
 9578 ~~WESTRINTIA~~ <sup>JA</sup> 22/19

loc hab - soil on 9575

EC: WPA-1 3P

H: domed - M/D - 1 perennial <sup>woody</sup> shrub

S: 15-30 x 30-55cm

leaves dull green; corolla white

① CONstricta ~~off~~ ~~MITTIDA~~ <sup>tabell.</sup> <sup>JA</sup>  
 9579 BORTA <sup>22/19</sup>  
 loc: 7.5 km NNE of BULLFINCH  
 WAXYAHMONING ROCK

Habit: M/E about flat plain <sup>30° 34' 55"</sup> <sup>118° 34' 00"</sup>

S: w/d gravelly sand

EC: Ges. ornucalata Si 2

H: D-M/D - 1 perennial shrub

S: 8-12cm x 15-20cm (SITE RECORD)

leaves bright dark green; base black; perianth segments white

① (DIELS) PEW <sup>JA</sup>  
 9580 MAIREANA GEORGEI <sup>22/19</sup>

loc: 9 km NE of WAXYAHMONING ROCK

Habit: colluvial flat

S: w/d heavy clay

EC: E. SAXUBRIS LA-i 3

H: S-M-3 perennial <sup>shrub</sup> semi-succulent

S: 35-40 x 40-50cm

leaves dull L blue-green; L yellow  
aged green. (SITE RECORD) <sup>fruit</sup>

VAR CURVICA (KRAUSE) RASPUT <sup>JA</sup>  
 9581 DAMPIERA TERETICAULIS ER <sup>22/19</sup>

loc: 13.5 km NNE of WAXYAHMONING ROCK

Habit: M/E about flat plain

S: w/d deep yellow sand

EC: CALL. PREISSII St 3P

H: V/S-M/D - leafless perennial <sup>woody</sup> shrubS: 20-25cm <sup>shrub form colour → 1m+</sup>

Plant dull dark green; corolla lobes dull light blue

F-Muell. ✓ SA  
9582 CASSIA CARDIOSPERMA 7/2/19

loc hab soil as 9580

EC: Gimlet LA 2

H: 5-11- $\frac{3}{4}$  <sup>shrub</sup> perennial woody

S: 1.3-1.8 x 1.3-1.6

lvs dull light green; petals  
deep gold-yellow (SITE RECORD)

0 (CAF) RW

9583 MAIREANA THESIOIDES ✓ SA

loc hab soil as 9580

EC: GIMLET LA 2

H: 5-0- $\frac{1}{2}$  <sup>shrub</sup> perennial, semi-succul

S: 35-40 x 40-45

lvs dull <sup>light</sup> blue-green; fruit L

yellow lined pink (SITE RECORD)

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APPENDIX II

BIRD OBSERVATIONS AT WALYAHMONING ROCK NATURE RESERVE

The observations were by B. J. Newbey, on 20, 21, and 22 September, 1982.

**Abundance:** Birds were recorded as few (F) = 1 or 2; several (S) = 3 to 10; many (M) = 11+. The notation is an indication of how many may be seen in the particular habitat type in thirty minutes.

VEGETATION TYPES

Birds were recorded in ten vegetation types:

1	Granite complex	6	<i>E. salmonophloia</i> woodland
2	<i>Acacia lasiocalyx</i> and <i>Acacia jibberdingensis</i> thicket	7	<i>E. sheathiana</i> low woodland.
3	<i>Eucalyptus loxophleba</i> mallee	8	<i>E. loxophleba</i> tree mallee
4	<i>E. capillosa</i> (wandoo) low woodland	9	<i>Acacia coolgardiensis</i> tall shrubland
5	<i>E. salubris</i> (gimlet) low woodland	10	<i>Allocasuarina acutivalvis</i> tall shrubland

Notations are after Muir (1977), from *Vegetation and Habitat of Bendering Reserve* In Part 2, Biological survey of the Western Australian wheatbelt. WA museum.

The habitats occur in four main landforms: GRANITE - 1 to 3; BREAKAWAY - 4; BROAD VALLEY - 5 to 8; SANDPLAIN - 9, 10.

BIRD SPECIES ENGLISH NAMES and the SEQUENCE of bird list is after *The Atlas of Australian Birds* Blakers, Davies and Reilly (1984).RAOU.

SPECIES	VEGETATION TYPE										NOTES
	1	2	3	4	5	6	7	8	9	10	
Emu	F	.	.	.	.	F	.	F	.	.	
Square-tailed kite	F	.	.	.	.	.	.	.	F	.	
Wedge-tailed eagle	F	.	.	.	.	.	.	.	.	.	
Little eagle	.	.	.	.	.	F	.	.	.	.	Nesting On nest.
Brown falcon	.	.	.	.	.	.	.	.	F	.	
Australian kestrel	F	.	.	.	.	.	.	.	.	.	
Mallee fowl	.	.	.	.	.	.	.	.	F	.	Nest only seen. In good condition- vegetation in but not filled in, no very fresh signs

SPECIES	VEGETATION TYPE										NOTES
	1	2	3	4	5	6	7	8	9	10	
Red-tailed black cockatoo	.	.	.	.	.	.	.	.	S	.	Where burnt
Galah	.	.	S	.	.	.	.	F	.	.	
Regent parrot	.	.	.	.	.	.	.	.	F	.	
Port Lincoln Ringneck	.	.	F	.	.	F	.	.	.	.	
Pallid cuckoo	.	.	.	F	S	.	.	F	.	.	
Fan-tailed cuckoo	.	.	.	.	.	.	F	.	F	.	
Black-eared cuckoo	.	.	.	F	.	.	.	.	.	.	
Horsfield's Bronzecuckoo	.	F	.	.	.	F	.	.	.	.	
Tawny frogmouth	.	.	F	.	.	.	.	.	.	.	
Red-backed kingfisher	.	.	.	.	F	F	.	.	.	.	
Tree martin	.	.	.	.	.	M	F	.	.	.	
Black-faced cuckoo shrike	.	.	.	F	.	.	F	F	.	.	
White-winged triller	.	.	F	.	.	.	.	.	.	.	
Southern scrub-robin	.	.	.	.	.	.	.	.	S	.	
Red-capped robin	F	.	F	F	F	.	.	S	.	.	
Jacky winter	.	.	.	S	.	.	.	.	.	.	
Golden whistler	.	.	.	.	.	.	.	.	F	.	
Rufous whistler	.	.	.	F	.	.	.	F	S	.	
Grey shrike-thrush	.	.	.	F	.	F	F	F	.	.	
Crested bellbird	.	.	F	.	F	F	.	F	.	.	
Grey fantail (White-tailed)	.	.	.	.	.	.	.	.	S	.	2 birds with almost complete nest
Grey fantail	.	F	.	.	.	.	.	.	.	.	
Willie wagtail	F	.	.	.	.	F	.	.	.	.	
White-browed babbler	.	S	.	.	.	.	.	.	S	.	
Blue-breasted Fairy-wren	.	S	.	.	.	.	.	.	F	.	

