GENERAL RESERVE AND VEGETATION SURVEY OF

SELECTED SMALLER NATURE RESERVES OF THE CENTRAL

WHEATBELT, PINGELLY MANAGEMENT DISTRICT.

PART 2. QUAIRADING SHIRE.

Prepared for:

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1.0 INTRODUCTION - THE SHIRE OF QUAIRADING

1.1 PHYSICAL DESCRIPTION

Quairading Shire lies in the central wheatbelt and has an area of 1,696 square km.

a) CLIMATE

The Shire has a typical wheatbelt climate with hot dry summers and mild wet winters. Most of the rain falls in winter from May to August and is generally reliable. From December to March there is some summer rain from thunderstorms. Quairading townsite receives an average yearly rainfall of 376mm (Bureau of Meteorology 1985).

The temperature regime is one of mild winters (mean temperature of the coldest month exceeds $10^{o}C$) and hot summers (the mean temperature of the hottest month exceeds $25^{o}C$).

Beard (1980) classes the regime in which the Quairading Shire occurs as Dry Warm Mediterranean.

b) GEOLOGY AND SOILS

Beard (1980) describes the geology of the general area in which the Shire is situated. The area is part of the Yilgarn Block a very ancient rigid "Shield" area composed mainly of Archaean granite and gneiss with some altered volcanics and sediments. The later occur in zones called metamorphic or "greenstone" belts. The Jimperding Metamorphic Belt occurs in the western section of the shire and covers the same area as the York Vegetation System.

The rest of the Shire is underlain by granite rocks, covered by alluvia in the major valleys. The landscape is gently undulating and of low relief except where granite outcrops protrude.

The soils of the area have been mapped in Sheet 5 of the Atlas of Australian Soils (Northcote et. al., 1967). On high ground there are sandplains of which the main soils on depositional slopes are sandy yellow earths containing ironstone gravels and on erosional ridges and slopes ironstone gravels or sands containing ironstone gravels. In the Mt. Caroline vegetation system granite outcrops can cover large areas and are surrounded by shallow, stony and gritty sandy soils. Below the sandplains the soils

are hard alkaline yellow mottled soils and hard alkaline red soils. In the valley bottoms these soils are underlain by acid lateritic clays. Salt lake systems also occur with saline loams.

1.2 NATURE RESERVES

There are 23 Nature Reserves with the Quairading Shire. Muir (1979) surveyed 8 of these reserves and found that 75% of the 468 ha reserved was salt marsh with little vegetation. Also the largest reserve in the shire (Channel Lakes 28088: 2424 ha, of which 1212.2 ha lies within the Quairading Shire), is mostly salt flats. Of the 23 Nature Reserves, 17 are less than 100 ha in area.

Reserves 11776, 19327, and 16405 are vested in the Minister for Water Resources, Reserve 13321 is vested in the Local Authority and 19570, 18155 and 2275 are unvested. The remaining 16 reserves are vested in the National Parks and Nature Conservation Authority.

Eight reserves were surveyed in the Quairading Shire their purpose and vesting are listed in Table 1.

TABLE 1.

RESERVE NO.	NAME	AREA (HA)	PURPOSE	VESTING
2275	-	5.0889	Water & Flora & Fauna	-
A11039	Gundaring	127.4760	Flora & Fauna	National Parks & Nature Conservation Auth.
A11048	Mt. Stirling	224.9571	Flora & Fauna	" " " "
11372	Quairading Spring	29.1374	Flora & Fauna	" " " "
11776	Mooraning	40.4686	Water & Flora & Fauna	Min. for Water Resources
18155	Jennaberring	6.7510	Flora & Fauna	-
18342	Pantapin	0.4629	Flora & Fauna	Nat. Parks & Nature Conservation Authority.
19570	Dangin	4.0469	Flora & Fauna	-

1.3 VEGETATION

The vegetation of the Shire has been mapped at a scale of 1:250,000 by Beard (1980). The Shire is situated in the Avon Botanical District. Reserves 11372 and 19570 are situated in the York Vegetation System. 2275 in the Meckering System and A11039. A11048, 11776, 18155 and 18342 in the Mt. Caroline System.

Beard (1980) describes the vegetation of these systems. Most of the countryside in the Meckering System is undulating with hard-setting loam soils originally covered by mixed woodland of E. loxophleba and E. wandoo with occasional E. salmonophloia. In this system sandplains occur only as remnants.

In the York System higher ground is capped by dissected remnants of laterite crust forming mesas bounded by breakaways. These ridges carry woodland of E. astringens and E. accedens sometimes with heath on the summits. Below the breakaways the bulk of the country is covered by woodland of E. loxophleba and E. wandoo, E. salmonophloia also occurs but is rare. Salt flats and lakes, from the Yenyening Lakes to Quairading, form a boundry to the South and East of the System. Here the vegetation is open eucalypt woodland, tea tree and samphire.

Granite outcrops are a conspicuous feature of the Mt. Caroline System where numerous large granite domes may often dominate the landscape. Residual sandplains are confined to relatively small remnants The outcrops of this system are patchily vegetated and Beard (1980) has mapped them as Jam-Sheoak low woodland

Beard describes kwongan formations in the Mt Caroline System as

(a) Casuarina campestris thickets on ironstone gravel.
(b Mixed thicket and scrub heath.
(c) Scrub-heath of the "Banksia - Xylomelum Association".
(d) Melaleuca uncinata thicket: occurs on poorly drained sand.
(e) Leptospermum erubescens thickets and heath, usually in outcrop areas receiving run-off.

Mallee is not extensive in this system and woodlands are usually composed of E. wandoo, E. loxophleba, E. salmonophloia and E. salubris. Mosaics of samphire communities and Melaleuca thickets are mapped as salt flats.

2.0 METHODS

The survey was carried out in May, 1985. Because of time limitations only 2-3 hours were spent on the smaller reserves and one day on each of the two larger reserves. The reserves were examined by vehicle where tracks were available or on foot.

Phyiscal characterisitcs of the reserves were obtained from lithographs (Department of Lands and Survey) and observations made in the field.

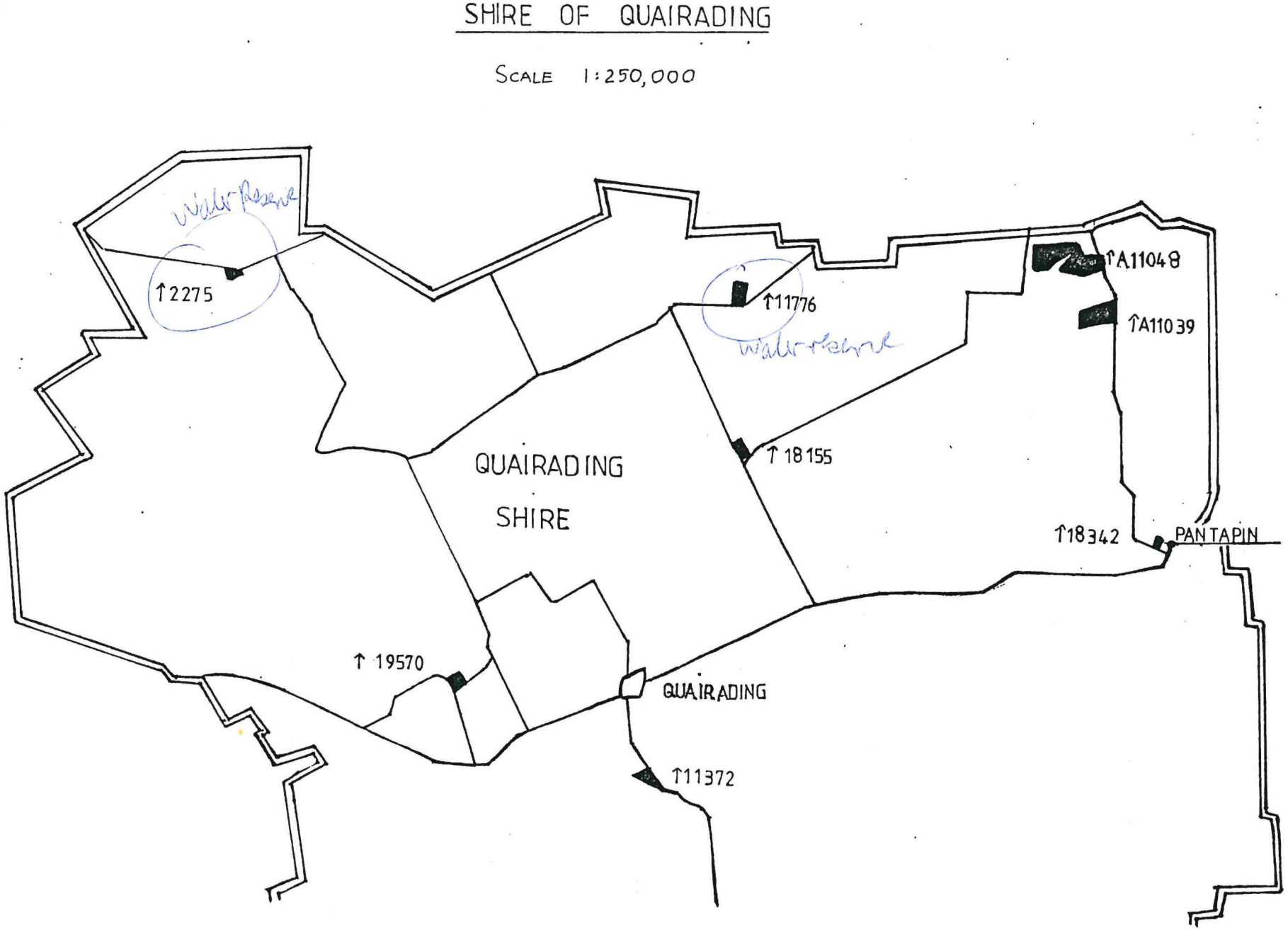
The vegetation survey was based on the use of aerial photographs. Lands and Survey Department 1:40,000, and 1:50,000 scale black and white. Approximate boundaries of vegetation types were drawn onto the photographs and these areas were examined in the field.

Vegetation was classified using Muirs (1977) system which was designed specifically for describing wheatbelt vegetation.

Due to time limitations only the most common plant species were recorded Where the identity of a species was doubtful a specimen was collected and taken to the W.A. Herbarium for identification. Because of the time of year in which the survey had to be conducted many of the plants were not in flower and therefore identifications were made from foliage alone.

FIGURE 1. LOCATION OF NATURE RESERVES SURVEYED IN THE SHIRE OF QUAIRADING

SCALE 1:250,000



RESERVE 2275

LOCATION

Ca 26 km North West of Quairading townsite and shown on lithograph 3A/40 C2 and 1:50,000 Sheet (Balkuling 2334-111).

BACKGROUND

Reserve 2275 was originally gazetted on May, 11th 1893 for the purpose of "Water and Camping" and vested in the York Road Board. The original area was ca 259.1 ha but this was amended on December 21st, 1906 to ca 145.7 ha and again on December 17th, 1920 to ca 5.0 ha.

The reserve was vested in the Shire of Quairading on April 29th, 1932 but this vesting was revoked on July 21st, 1972 when the reserve was reclassified for the purpose of "Water and Conservation of Flora and Fauna". The reserve remains unvested after this date.

PHYSICAL CHARACTERISTICS

Reserve 2275 is rougly triangular in shape with a total perimeter of ca 1.0 km and an area of 5.0889 ha. The reserve is 260 m above sea level with the surrounding land to the North and South sloping gradually upwards. There is a natural stream line running through the reserve from West to East but this has been widened into a channel by the neighbouring farmer.

ADJOINING LAND

NORTH: Gravel Road, Goldfields Road, Fence 6 line ringlock plus 1 plain wire on wooden posts (condition poor - part of the fence has fallen over).

SOUTH: Private farm land, cleared. Fence part 6 line ringlock plus 1 barb wire (condition fair), part 6 line ringlock plus 1 plain wire (condition poor).

EAST: Track (unmade surveyed road) used for farm access. Only partly fenced with ringlock and 1 plain wire (condition fair-poor).

WEST: Private farm land, cleared. Fence rabbit netting plus one barb wire on wooden posts (condition fair).

HUMAN USAGE AND DAMAGE OR DEGRADATION

1) The neighbouring farmer has cut a channel through the reserve supposedly to facilitate drainage in the area. The channel appears to follow the course of the natural streamline.

2) Most of the reserve is badly salt affected. Intercepter banks have been constructed on neighbouring farmland on higher ground to the South East of the reserve.

3) Part of the reserve in the South Eastern section has been fenced for holding stock. These holding paddocks have not been used for some time and the fences are now in disrepair.

FIREBREAKS

Perimeter firebreaks on adjacent farmland, none on the reserve. Goldfields Road and the farm track form firebreaks to the North and East.

WEEDS

General infestation of wild oats (Avena sativa/fatua) throughout the reserve

FIRE HISTORY

There was no evidence of fire within the last 20-30 years.

VEGETATION

Most of reserve 2275 is badly salt affected but an area of York Gum (Eucalyptus loxophleba) Low Forest A still remains.

A few Salmon Gums (Eucalyptus salmonophloia) are present in the North-West corner of the reserve.

PLANT SPECIES

Four native plant species were recorded for the reserve, three of which are listed by Rye et. al. (1980) as exploited by the wildflower trade.

COMMENTS AND RECOMMENDATIONS

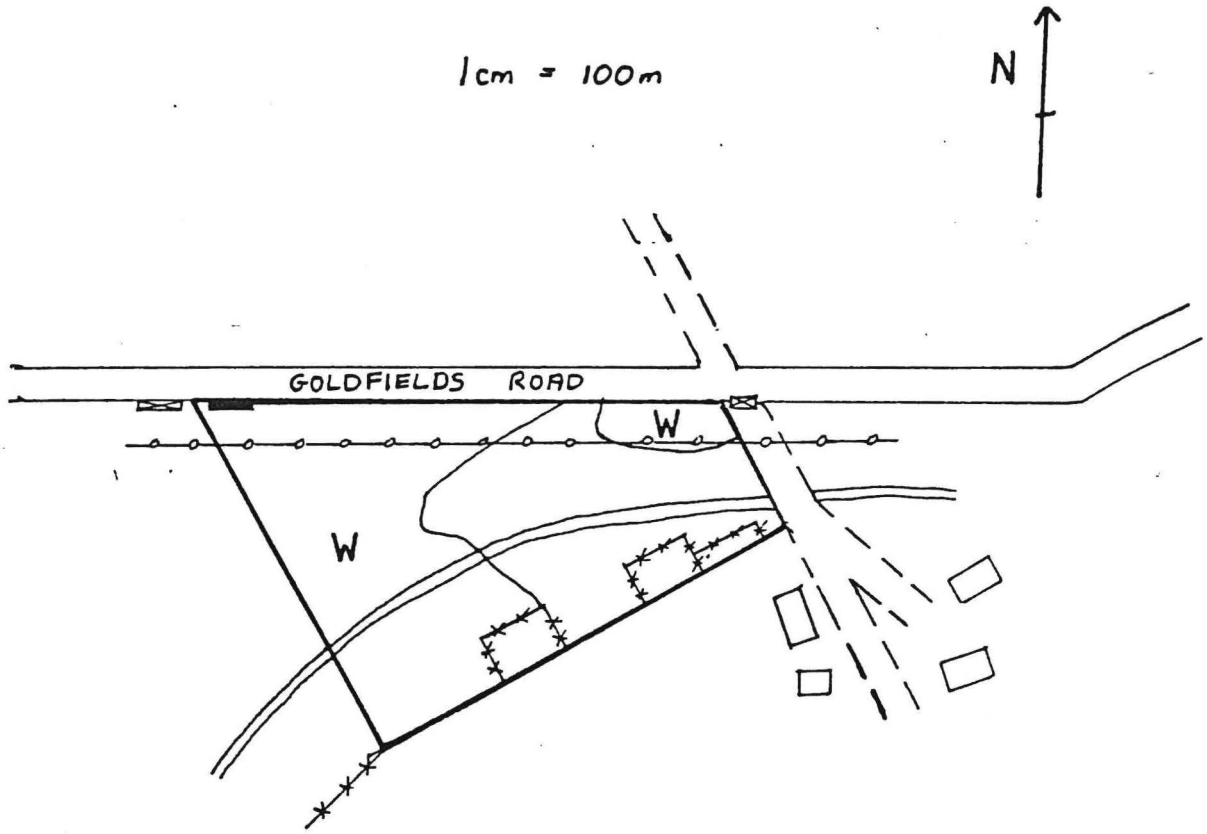
Most of Reserve 2275 is badly salt affected and of little use. However, four species of birds were noted in the small area of remaining woodland including crows and pink and grey galahs. The reserve may therefore still be of some value as a resting place for bird species.

FIGURE 2.

RESERVE 2275

Scale 1 : 5,000

1cm = 100m



KEY

- RESERVE BOUNDARY
- ROAD
- FARM TRACK
- FENCE
- POWER LINE
- CHANNEL
- FARM SHEDS and HOUSE
- GATE ON ADJOINING LAND
- GATE OUT OF RESERVE
- W YORK GUM (*Eucalyptus loxophleba*) WOODLAND
  LAC - MUIR (1977) VEGETATION CODE

APPENDIX 1

YORK GUM WOODLAND

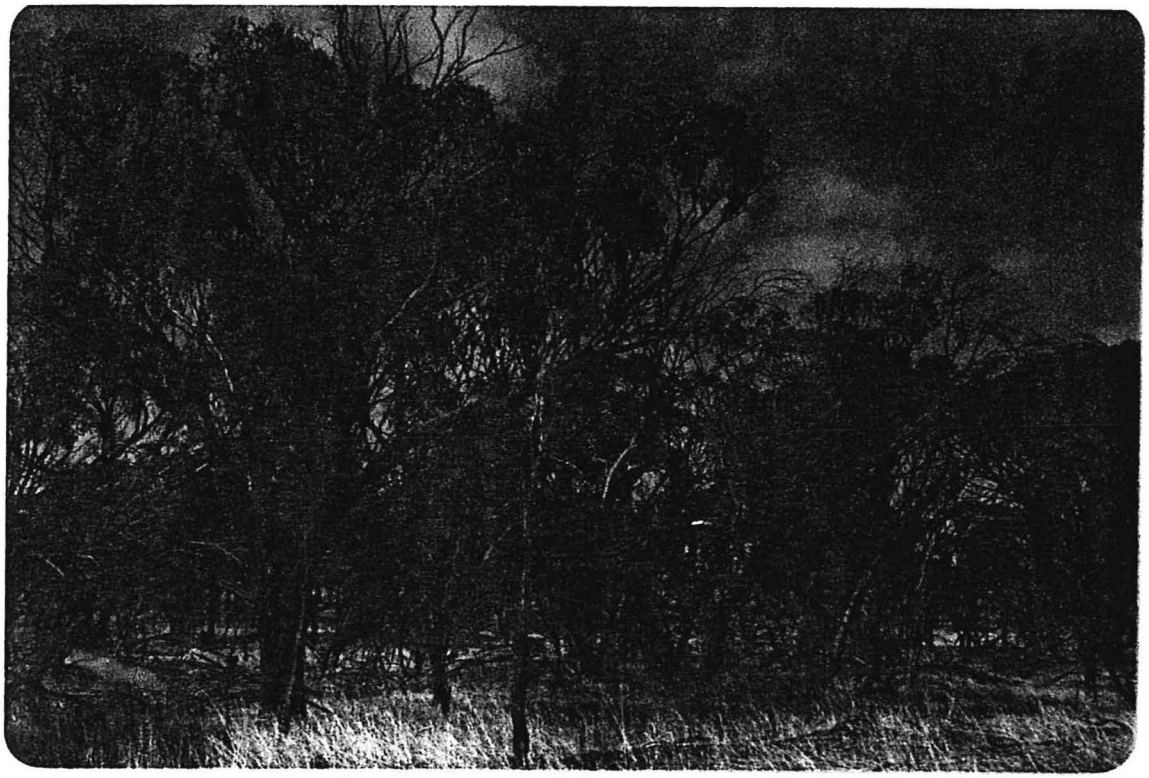
Eucalyptus loxophleba trees, mature to senescent, 8-10 m 30-70% canopy cover. Scattered trees of Acacia acuminata to 3 m are also present. Soil light brown sandy loam.

The number of dead trees in this association increases towards the eastern section of the reserve where the soil has a high clay content.

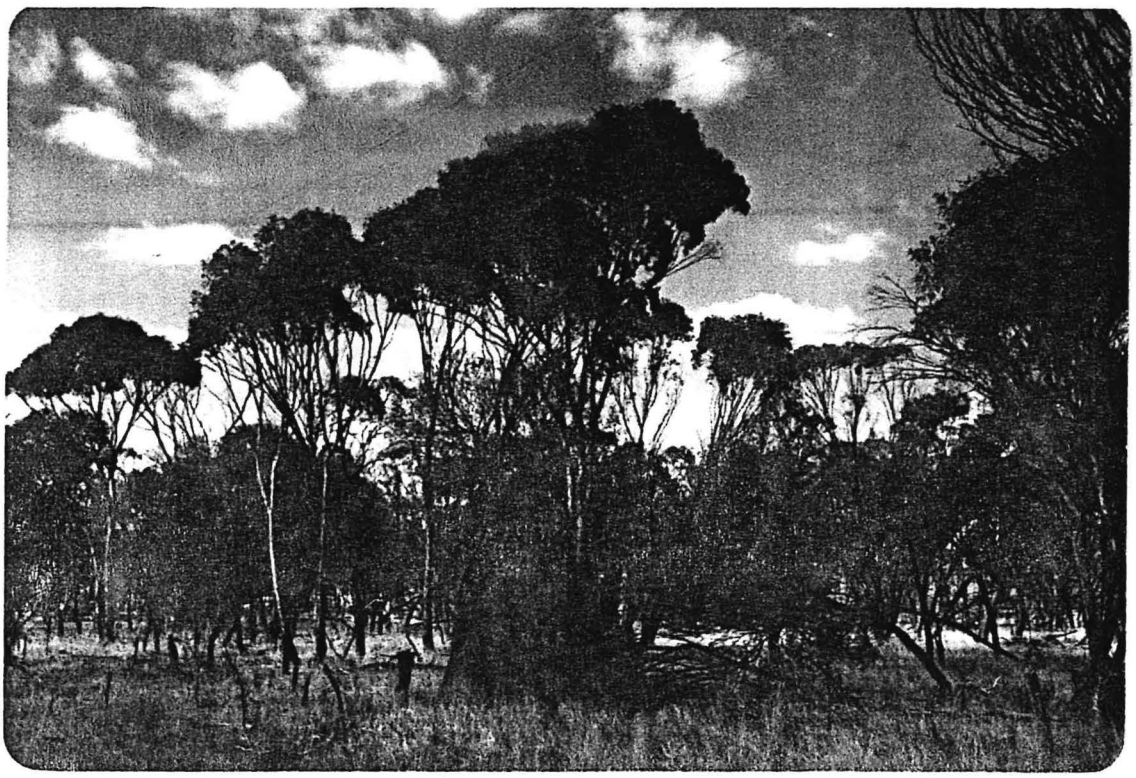
In the eastern section only Atriplex semibaccata was recorded. The remaining trees have died.

Eucalyptus salmonophloia occur in a small area in the North West corner of the reserve.

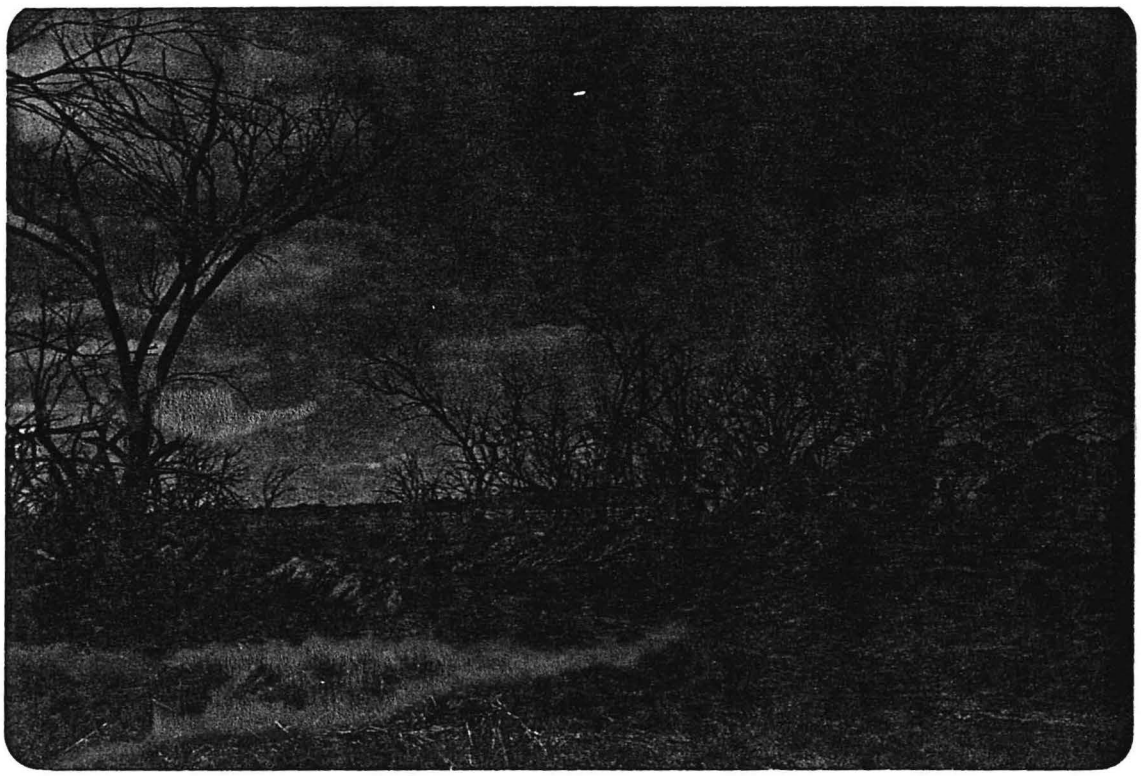
PHOTOGRAPH 1. York Gum (Eucalyptus loxophleba) Woodland.



PHOTOGRAPH 2. Salmon Gums (Eucalyptus salmonophloia) in the North West corner of the reserve.



PHOTOGRAPH 3. Salt effected area of Reserve 2275 showing a section of the channel which has been cut through the reserve.



GUNDARING NATURE RESERVE A11039

LOCATION

Ca 26 km North East of Quairading townsite and shown on lithograph 4/80 and 1:50,000 sheet, Pantapin 2434-111.

BACKGROUND

Reserve A11039 was originally gazetted on February 28th, 1908 for the purpose of "water". On April 1st, 1977 the reserve was reclassified for the "Conservation of Flora and Fauna", A class, and vested in the National Parks and Nature Conservation Authority. The reserve was officially named Gundaring Nature Reserve on November 16th, 1984.

PHYSICAL CHARACTERISTICS

Gundaring Nature Reserve is approximately rectangular in shape with a total perimeter of ca 4.9 km and an area of 127.476 ha.

The highest point on the reserve is the top of the Granite Outcrop in the south west section, ca 340 m Above Sea Level. The land grades down to 280 m ASL along the Northern and Eastern boundaries and to 330 m ASL in the south west corner.

ADJOINING LAND

NORTH: Track (unmade surveyed road) Fence part six line ringlock and one barb wire (condition good), part rabbit netting plus one plain wire (condition generally poor but repaired in places).

SOUTH: Private farmland, cleared and uncleared (see Fig 3.) The uncleared land consists of Jam woodland and exposed granite rock. Fence part 6 line ringlock and one plain wire on steel posts (condition fair but fallen trees have damaged the fence in places).

EAST: Gravel road, Glenluce Road.

WEST: Private farmland, cleared and uncleared (Fig. 3). Only partly fenced along the border of the cleared farmland. Fence sheep netting plus one barb wire on wooden posts (condition poor).

HUMAN USAGE AND DAMAGE OR DEGRADATION

1) Past dumping of rubbish along the track in the north eastern section of the reserve.

2) It appears that the neighbouring farmer has cleared a section of the reserve along the southern boundary.

3) Old signs of tree felling in Jam Woodlands.

4) Extensive rabbit warrens are situated along the fence on the western boundary.

WEEDS

General infestation of wild oats (Avena fatua/sativa) throughtout the woodland areas. Briza maxima was also recorded.

FIRE HISTORY

There is no evidence of fire within the last 20-30 years.

FIREBREAKS

Perimeter firebreaks on adjacent cleared farmland. none on the reserve. Glenluce Road forms a firebreak to the west of the reserve.

VEGETATION

Eight vegetation associations are present on the reserve. Details of these associations and species recorded can be found in Appendix 2.

1) Granite Outcrop: Mostly bare granite with patches of Borya nitida or scattered shrubs. Acacia lasiocalyx occurs in deeper soils.

2) Acacia lasiocalyx woodland: Acacia lasiocalyx Low Forest A over Grevillea petrophiloides thicket. Allocasuarina huegeliana is usually present.

3) Jam and Sheoak woodland: Acacia acuminata and Allocasuarina huegeliana Low Woodland A.

4) Jam Woodland: Acacia acuminata Low Woodland A with scattered Eucalyptus loxophleba.

5) York Gum Woodland: Eucalyptus loxophleba Low Forest A over Acacia acuminata Low Woodland A.

6) Banksia woodland: Banksia prionotes Low Woodland A over Leptospermum ? erubescens thicket.

7) Sheoak Woodland: Allocasuarina huegeliana Low Forest A.

8) Tamma thicket: Allocasuarina campestris thicket.

PLANT SPECIES

22 Native plant species were recorded for the reserve, 14 of which are listed by Rye et. al., (1980) as exploited by the wildflower trade.

COMMENTS AND RECOMMENDATIONS

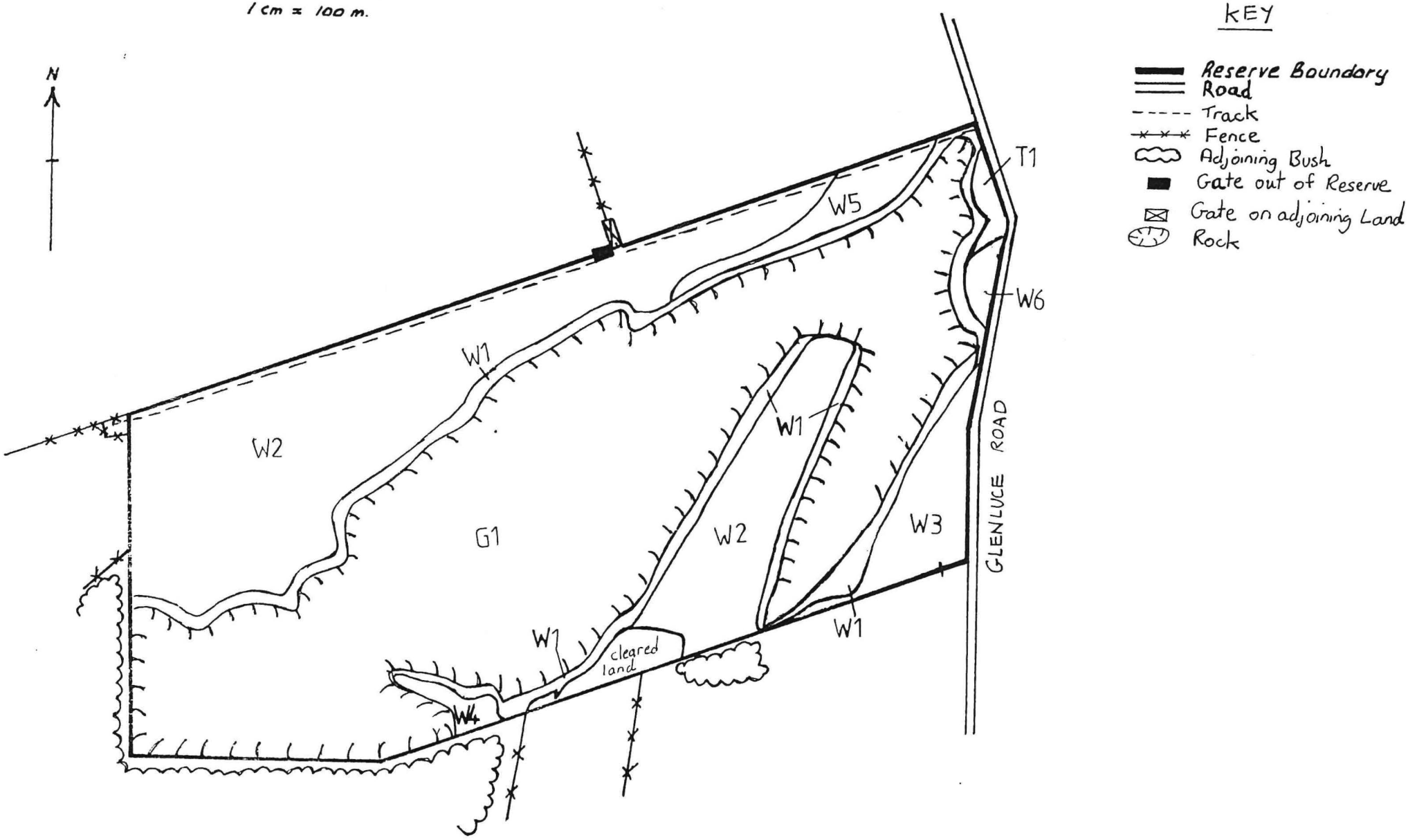
Reserve A11039 has a fairly diverse vegetation and is of great value in a shire where large reserves and reserves with vegetation other than salt complex are scarce. It contains nest hollows and is of value as a resting site for transient birds. The value of the reserve would be enhanced by the addition of adjacent uncleared land

The southern boundary should be checked and the neighbouring farmer contacted if reserve land has been cleared.

FIGURE 3. RESERVE 'A' 11039

Scale 1 : 10 000
1 cm = 100 m.

GUNDARING NATURE RESERVE



KEY

- Reserve Boundary
- Road
- Track
- Fence
- Adjoining Bush
- Gate out of Reserve
- Gate on adjoining Land
- Rock

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VEGETATION OF GUNDARING NATURE RESERVE A11039

KEY TO VEGETATION TYPES

		Muir (1977) Vegetation Code
G1	Grantie Outcrop	
W1	Acacia lasiocalyx Woodland	LAc . SC
W2	Jam (Acacia acuminata) and Sheoak (Allocasuarina huegeliana)	LAi
W3	Jam (Acacia acuminata) Woodland	LAi
W4	York Gum (Eucalyptus loxophleba) Woodland	LAc . LAi
W5	Banksia (Banksia prionotes) Woodland	LAc . Sc
W6	Sheoak (Allocasuarina huegeliana) Woodland	LAc
T1	Tamma (Allocasuarina campestris) Thicket	Sc.

APPENDIX 2

1) GRANITE OUTCROP

Mostly bare granite with pockets of Borya nitida or scattered plants of Cheilanthes austrotenuifolia, Diplolaena microcephala var. drummondii, Dodonaea viscosa ssp. angustissima, Grevillea petrophiloides and Stypandra imbricata. Areas of Acacia lasiocalyx, 3-4 m, occur where soil pockets are deeper usually with an understorey of Grevillea petrophiloides to 2m, 30-70% canopy cover.

2) ACACIA LASIOCALYX WOODLAND

Acacia lasiocalyx trees, mature to senesent 6-15m, 30-70% canopy cover over Grevillea petrophiloides shrubs, 2-3m, 30-70% canopy cover. Allocasuarina huegeliana is usually present in this association, 6-10m. Guichenotia macrantha was also recorded. Soil dark brown sandy loam. This association occurs at the edge of the Granite Rock where water run-off is high.

3) JAM AND SHEOAK WOODLAND

Acacia acuminata and Allocasuarina huegeliana trees, 2-6m, 10-30% canopy cover. No understorey. Other species recorded were Chrysocoryne pusilla Allocasuarina campestris *Avena fatua/sativa Grevillea paniculata, Waitzia ? acuminata Soil orange brown sandy loam

Most of this association occurs in the North West section of the reserve, towards the eastern boundary of this section the Allocasuarina huegeliana trees disappear and the vegetation becomes Acacia acuminata woodland, 3-5 m, 10-30% canopy cover.

4) JAM WOODLAND WITH SCATTERED YORK GUMS

Acacia acuminata trees, 3-6 m, 10-30% canopy cover, with scattered Eucalyptus loxophleba emergent to 10 m. Also recorded were *Avena fatua/sativa, *Briza maxima. Soil orange brown sandy loam.

5) YORK GUM WOODLAND

Eucalyptus loxophleba trees, 8-10 m, 30-70% canopy cover over Acacia acuminata 4-8 m, 10-30% canopy cover. Other species recorded were Allocasuarina campestris, *Avena fatua/sativa, *Briza maxima, Dianella revoluta, Grevillea petrophiloides, Waitzia ? acuminata. Soil dark brown sandy loam.

6) BANKSIA WOODLAND

Banksia prionotes trees, 8-12m, 10-30% canopy cover. Understorey is Leptospermum ? erubescens, shrubs 2-3m, 30-70%. Other species recorded were Acacia lasiocalyx, Allocasuarina huegeliana, *Avena fatua/sativa, Grevillea petrophiloides, Melaleuca macronychia, Verticordia densiflora. Soil light brown loamy sand.

Towards the eastern section of this association Banksia prionotes becomes less dense, 2-10% canopy cover. The soil here is dark brown sandy loam.

7) SHEOAK WOODLAND

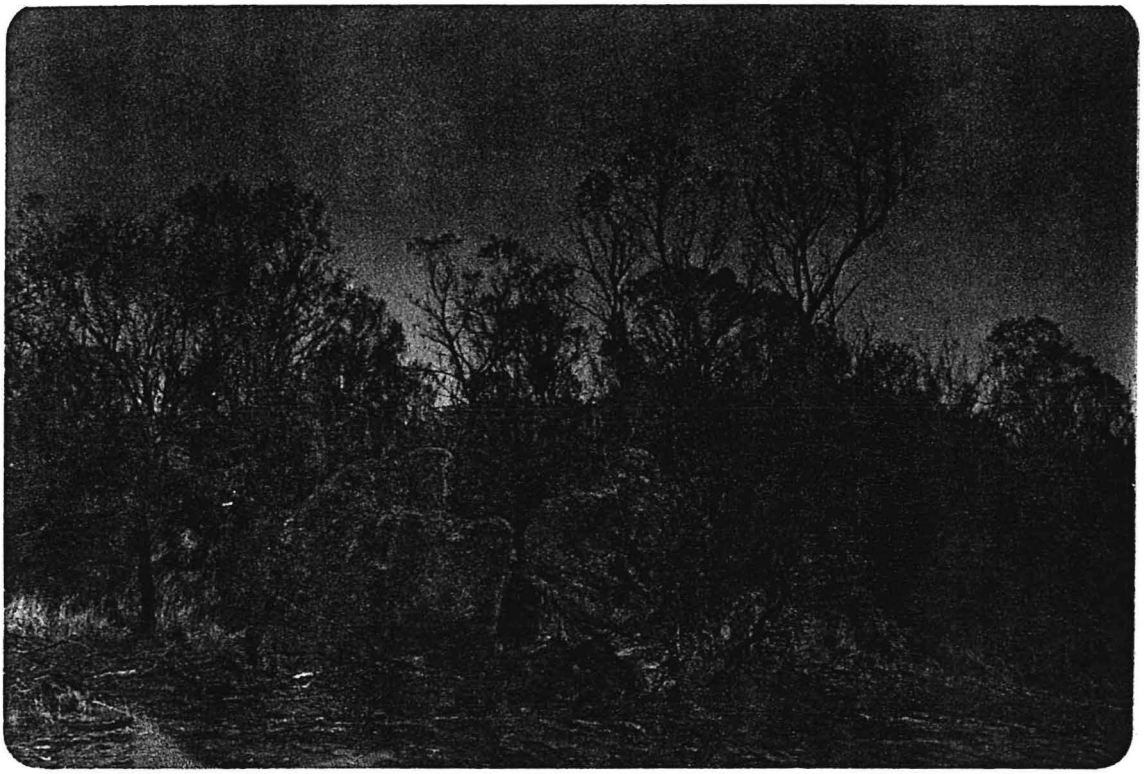
Allocasuarina huegeliana trees, 6-8 m, 30-70% canopy cover. No understorey but scattered plants of Acacia acuminata, Acacia lasiocalyx, *Avena fatua/sativa, Grevillea petrophiloides, Leptospermum erubescens are present. Soil dark brown sandy loam.

8) TAMMA THICKET

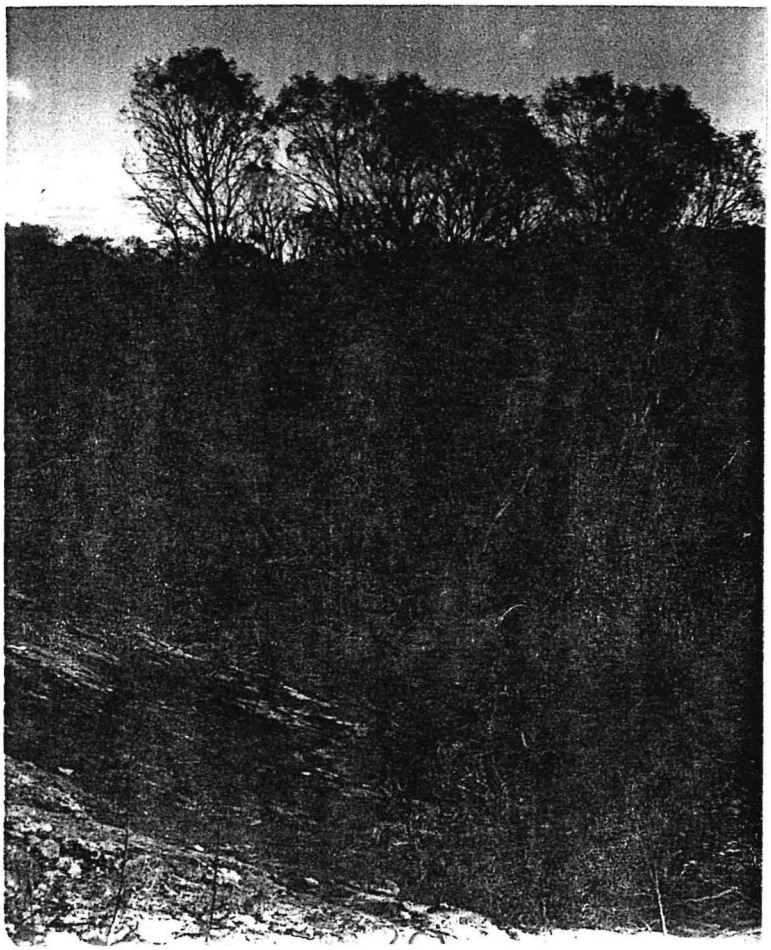
Allocasuarina campestris shrubs, 2-4 m, 30-70% canopy cover. Other species recorded were Acacia acuminata, *Avena fatua/sativa, Acacia lasiocalyx, Banksia prionotes, Grevillea petrophiloides, Leptospermum erubescens. Soil orange brown sandy loam

*Introduced species.

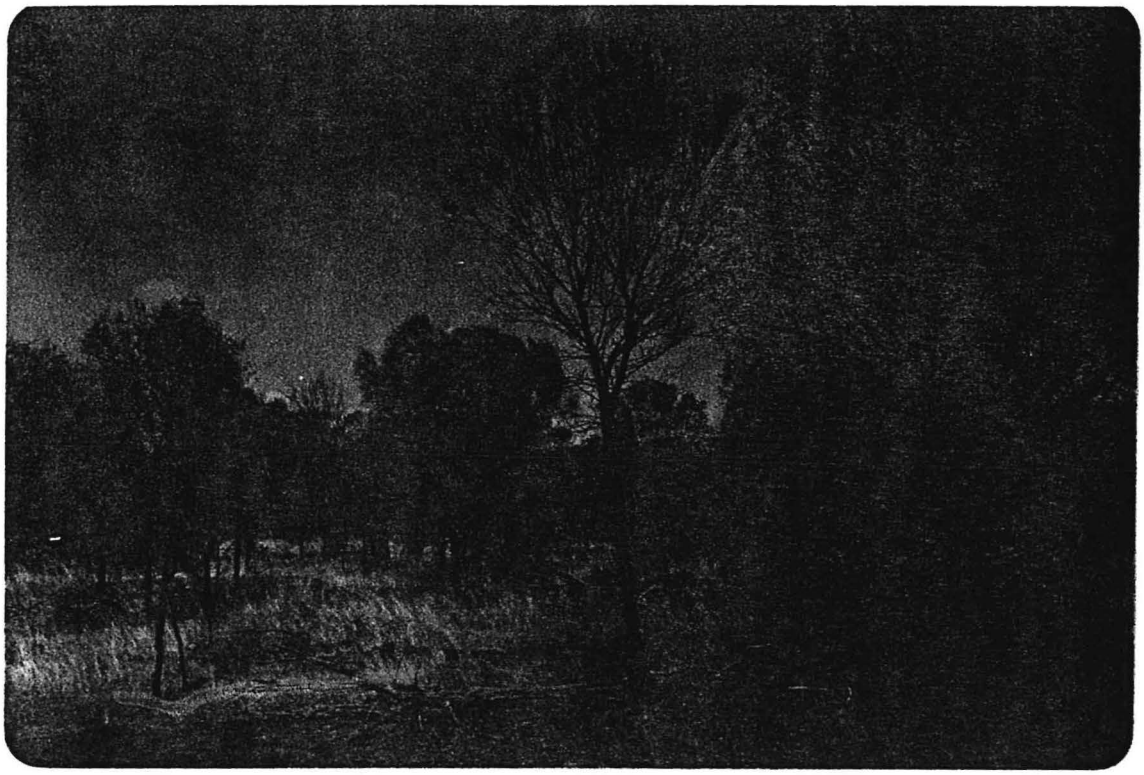
PHOTOGRAPH 1. The photograph was taken at the top of the granitoutcrop. Acacia lasiocalyx can be seen with an understorey of Grevillea petrophiloides.



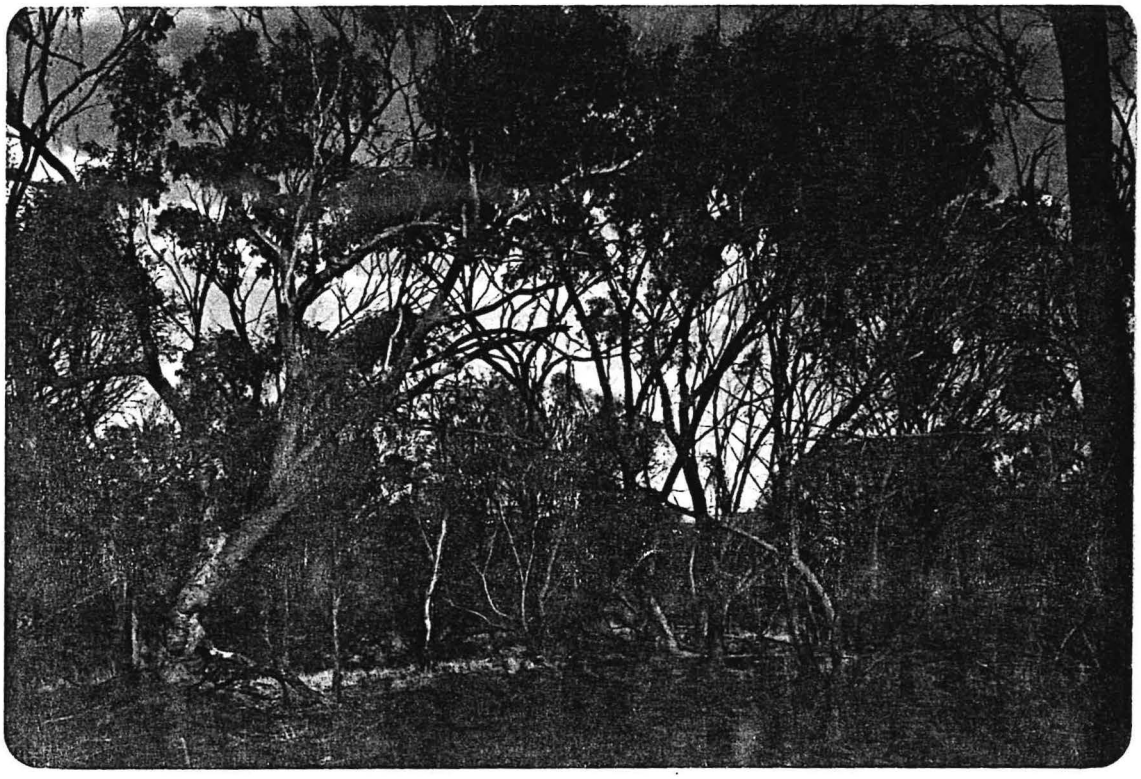
PHOTOGRAPH 2. Acacia lasiocalyx with an understorey of Grevillea petrophiloides at the base of the granite outcrop.



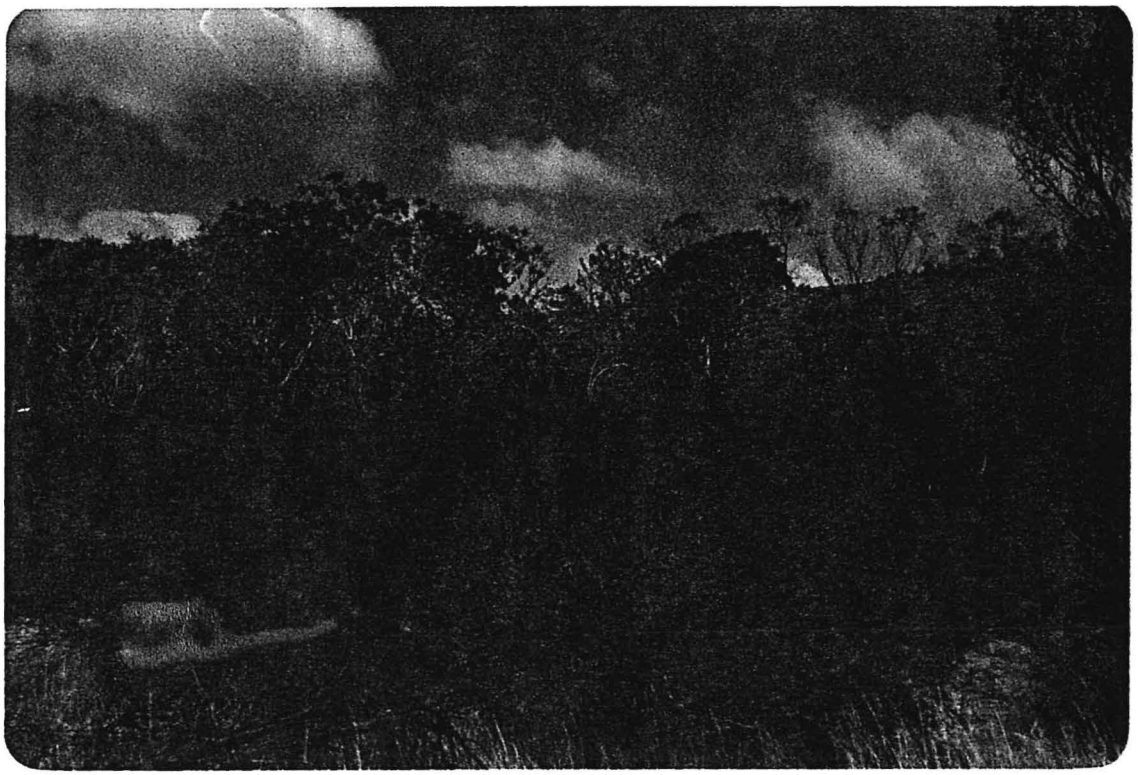
PHOTOGRAPH 3. Jam (Acacia acuminata) and Sheoak (Allocasuarina huegeliana) woodland.



PHOTOGRAPH 4. York Gum (Eucalyptus loxophleba) woodland with an understorey of Jam (Acacia acuminata).

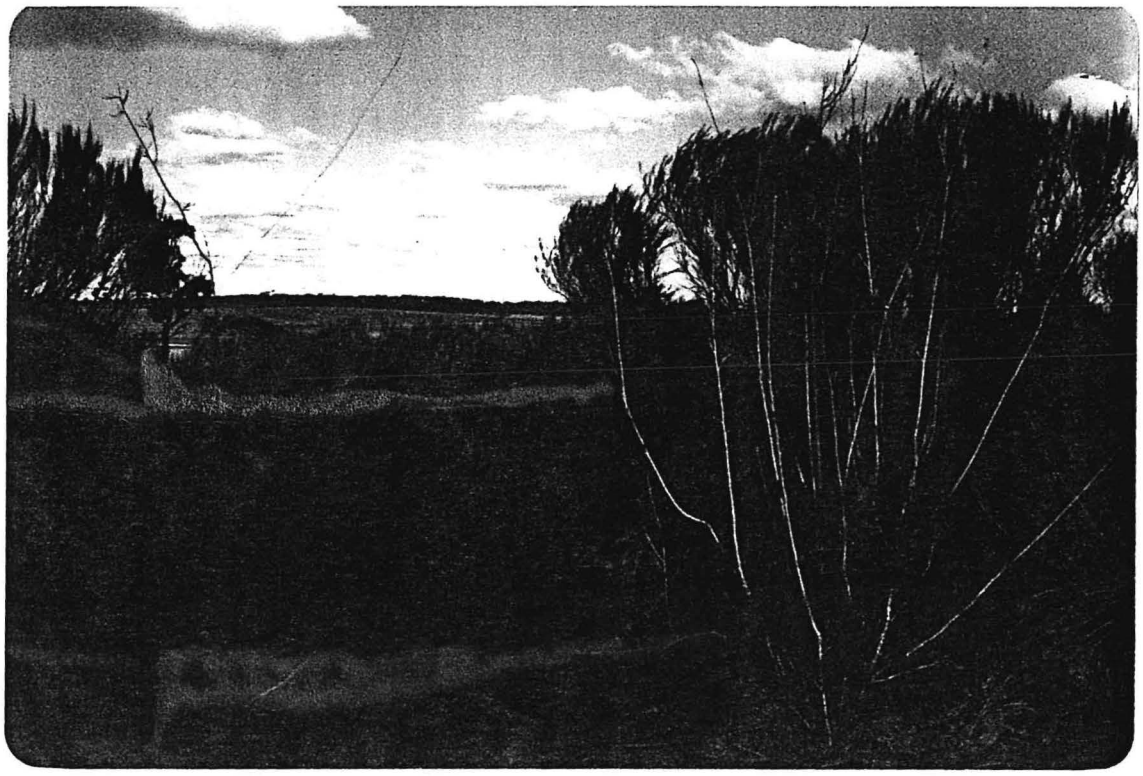


PHOTOGRAPH 5. Banksia prionotes woodland with Melaleuca macronycha and Leptospermum erubescens in the foreground.



PHOTOGRAPH 6. Sheoak (Allocasuarina huegeliana) woodland.

PHOTOGRAPH 7. Tamma (Allocasuarina campestris) thicket.



MOUNT STIRLING NATURE RESERVE A11048

LOCATION

Ca 26.5 km North East of Quairading Townsite and shown on lithograph 4/80 and 1:50,000 sheet Pentapin 2334-111.

BACKGROUND

Reserve A11048 was originally gazetted on February 2nd. 1908 for the purpose of "water" with an area of ca 231.6 ha. On June 5th , 1964 the reserve was reclassified for the purpose of "conservation of Flora and Fauna" and vested in the Fauna Protection Advisory Committee. On July 26th, 1968 the area of the reserve was amended to 224.9571 ha and on April 1st. 1977 it was vested in the National Parks and Nature Conservation Authority.

PHYSICAL FEATURES

Mount Stirling nature reserve is almost divided in half by an area of cleared farmland and is irregular in shape (see Figure 4). The boundary basically follows that of the Granite outcrop which covers nearly all of the reserve. The reserve has a total perimeter of ca 10.6 km and an area of 224.9571 ha.

The highest point on the reserve is the top of Mt Stirling (376.0m Above Sea Level) which is situated in the Eastern section

In this section the land grades down to ca 270 m ASL in the South west corner and towards the Northern boundary and to ca 250 m ASL towards the eastern boundary. In the western section the land grades down to ca 260 m ASL towards the southern boundary ca 250 m ASL in the North East corner and ca 240 m in the North West corner.

ADJOINING LAND

NORTH: Private farmland, cleared. Fence part six strand ringlock plus two barb wire on wooden posts (condition good) part rabbit netting plus one barb wire (condition fair - poor in places).

SOUTH: Private farmland, cleared. Fence rabbit netting plus one barb wire on wooden posts (condition fair - steel posts have been added for reinforcement in places).

There is a gravel road along the southern boundary in the western section.

INTERVENING FARM LAND

EAST SIDE: Fence 6 strand ringlock on steel posts (condition good).

WEST SIDE: Fence rabbit netting and one barb wire (condition good).

EAST: Gravel road, Glenluce Road.

WEST: Private farmland, continuation of Granite Outcrop.

HUMAN USAGE AND DAMAGE OR DEGRADATION

1) Small areas of reserve have been cleared where neighbouring farmers have fenced up to the exposed rock. The farmer to the North of the reserve reports that this has been necessary due to a problem with rabbits.

2) Tourist coaches visit the reserve and the remains of the Presbyterian Church on the western border. The East West gravel road in the western section is used regularly for farm access and by tourist coaches

FIREBREAKS

Peripheral firebreaks on adjacent farmland. Glenluce Road forms a firebreak to the east.

FIRE HISTORY

There is no evidence of fire within the last 20-30 years.

WEEDS

General infestation of wild oats (Avena fatua/sativa) in woodland areas. Briza maxima was also recorded.

VEGETATION

Most of the reserve is covered by granite outcrop. There are large areas of exposed granite with patches of Borya nitida and scattered plants.

In some areas soil pockets are sufficient to support scattered trees of Acacia lasiocalyx, Acacia lasiocalyx Low Forest B and Acacia lasiocalyx Dense Low Forest A sometimes over Grevillea petrophiloides Dense Heath A.

Also on some slopes soil pockets have developed sufficiently to support scattered trees of Jam (Acacia acuminata) or Acacia acuminata Low Woodland B.

At the base of the granite rock four vegetation associations can be found.

1) Acacia lasiocalyx woodland - Type 1: Acacia lasiocalyx Dense Low Forest A.

2) Acacia lasiocalyx woodland - Type 2: Acacia lasiocalyx Low Forest A over Grevillea petrophiloides Heath A.

3) York Gum Woodland: Eucalyptus loxophleba Low Forest A.

4) York Gum and Jam woodland: Eucalyptus loxophleba Open Low Woodland A over Acacia acuminata Low Forest B.

Details of vegetation associations and species recorded can be found in Appendix 3

PLANT SPECIES

15 Native plant species were recorded for the reserve, 10 of which are listed by Rye et. al. (1980) as exploited by the wildflower trade.

COMMENTS AND RECOMMENDATIONS

Mt. Stirling Nature Reserve is of great value as a nesting and feeding site for resident and transient bird species.

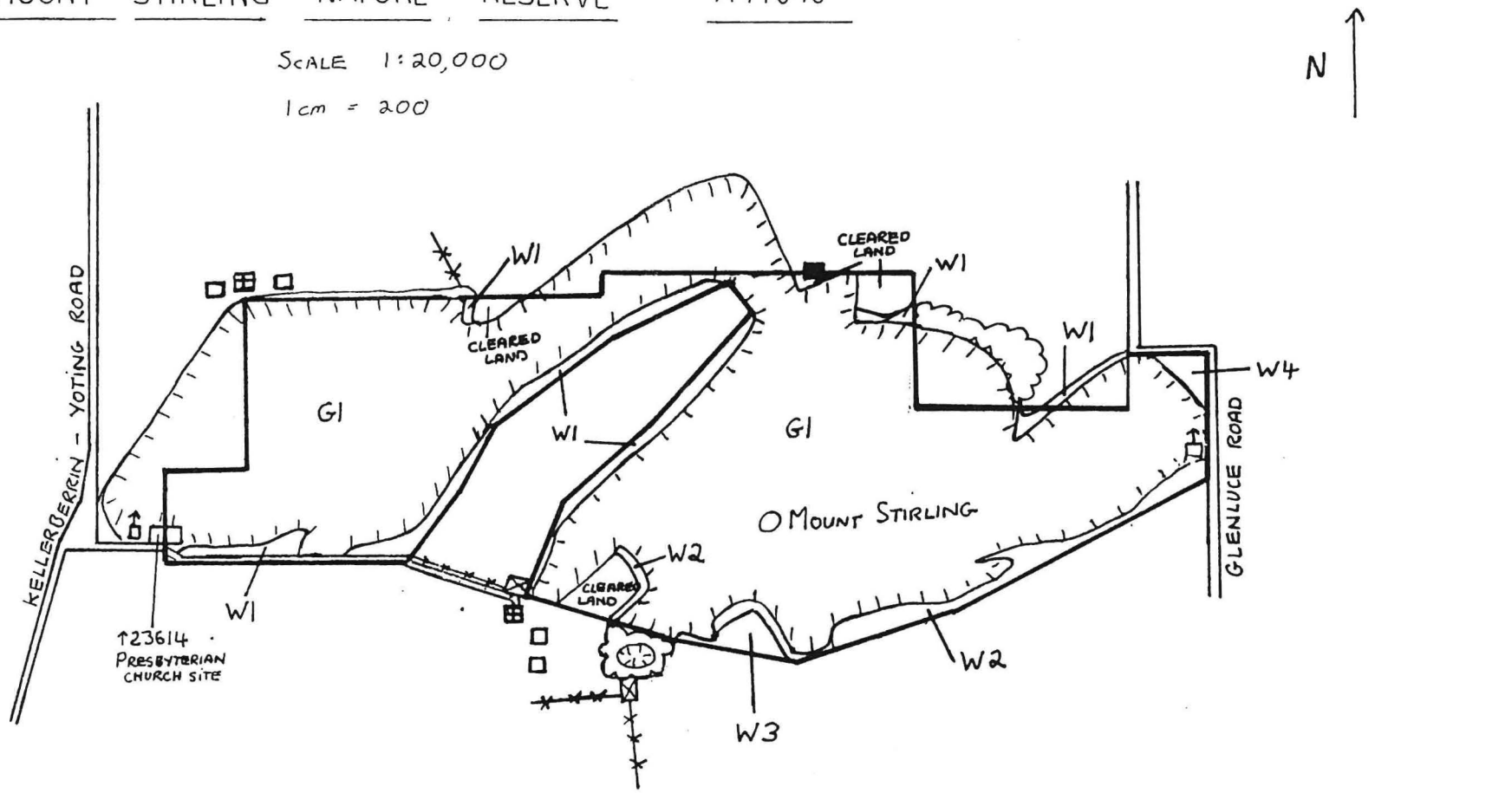
The reserve boundaries should be checked to investigate the extent of clearing of reserve land by neighbouring farmers.

FIGURE 4

MOUNT STIRLING NATURE RESERVE A11048

SCALE 1:20,000

1cm = 200



KEY

- RESERVE BOUNDARY
- ROAD
- FENCE
- RESERVE SIGN
- GATE OUT OF RESERVE
- GATE ON ADJOINING LAND
- ADJOINING BUSH
- ROCK
- HOUSE
- FARM SHEDS

27

VEGETATION OF MOUNT STIRLING NATURE RESERVE A11048

KEY TO VEGETATION TYPES

		Muir (1977) Vegetation Code
G1	Granite Outcrop	
W1	*Acacia lasiocalyx* woodland type 1	LAd
W2	*Acacia lasiocalyx* woodland type 2	LAc . SAc
W3	York Gum (*Eucalyptus loxophleba*) woodland	LAc
W4	York Gum (*Eucalyptus loxophleba*) and Jam (*Acacia acuminata*) woodland	LAr . LBc

APPENDIX 3

1) GRANITE ROCK

Large areas of exposed granite rock with pockets of Borya nitida or scattered plants of Dodonaea viscosa ssp. angustissima, Spartochloa scirpoidea, Stypandra imbricata, Allocasuarina huegeliana, Acacia acuminata, Acacia lasiocalyx. On some slopes soil pockets have developed sufficiently to support.

a) Acacia acuminata trees, 3-5m, 10-30% canopy cover. Other species recorded for this association were: Acacia lasiocalyx, Allocasuarina huegeliana. *Avena fatua/sativa, *Briza maxima, Borya nitida, Eucalyptus loxophleba, Grevillea petrophiloides, Leptospermum erubescens. Soil orange sandy loam.

b) Acacia lasiocalyx trees 4-6 m, 70-100% canopy cover sometimes with an understorey of Grevillea petrophiloides shrubs to 2m, 70-100% canopy cover. Soil dark brown sandy loam.

c) Acacia lasiocalyx trees, 4-5 m, 30-70% canopy cover with scattered Eucalyptus loxophleba and Acacia acuminata. Soil dark orange brown sandy loam.

2) BASE OF GRANITE ROCK

a) Acacia lasiocalyx Woodland - Type 1
Acacia lasiocalyx trees 8-10m, 70-100% canopy cover. No understorey is present This association is present in areas of high run-off. Soil dark brown sandy loam

b) Acacia lasiocalyx Woodland - Type 2.
Acacia lasiocalyx trees, 8-10m, 30-70% canopy cover. Understorey is Grevillea petrophiloides shrubs to 2 m, 30-70% canopy cover. Other species recorded were Acacia acuminata, Allocasuarina huegeliana, *Avena fatua/sativa, *Briza maxima, Calothamnus quadrifidus, Diplolaena microcephala var. drummondii, Grevillea paniculata. Soil dark brown sandy loam.

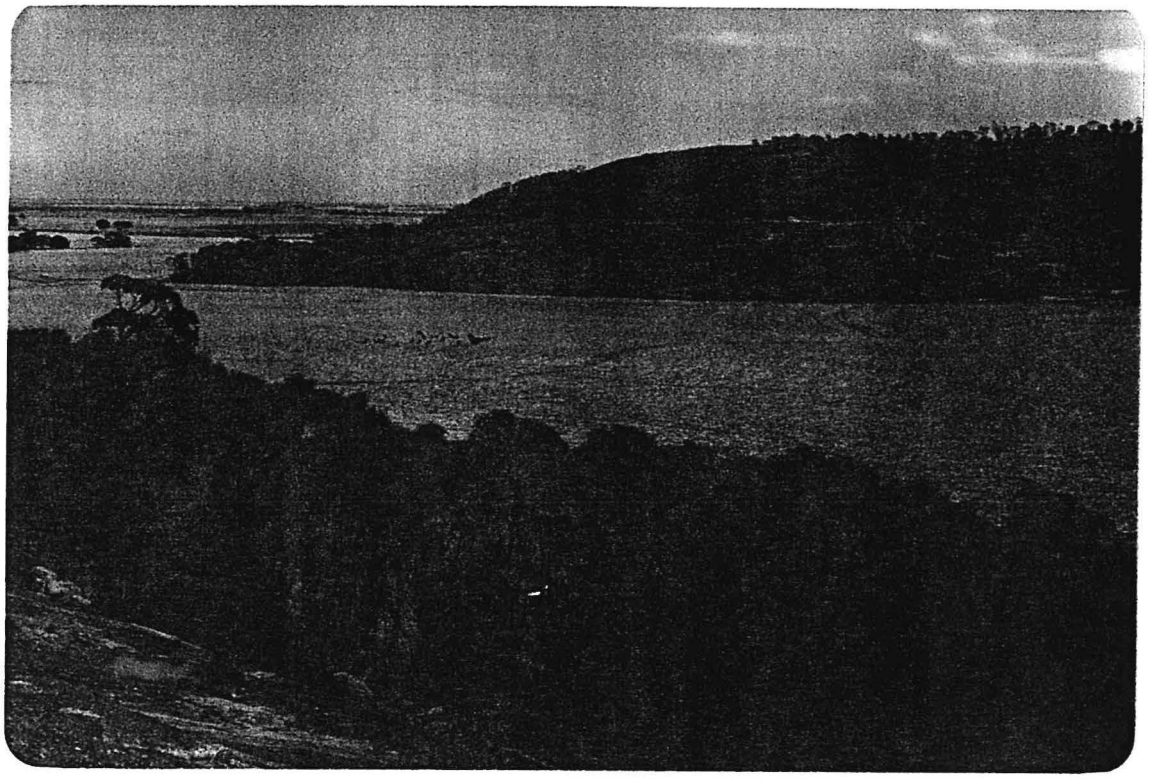
c) York Gum Woodland.
Eucalyptus loxophleba trees, 10-12m, 30-70% canopy cover. No understorey. *Avena fatua/sativa and *Briza maxima were also recorded. Soil dark brown sandy loam.

d) York Gum and Jam Woodland.

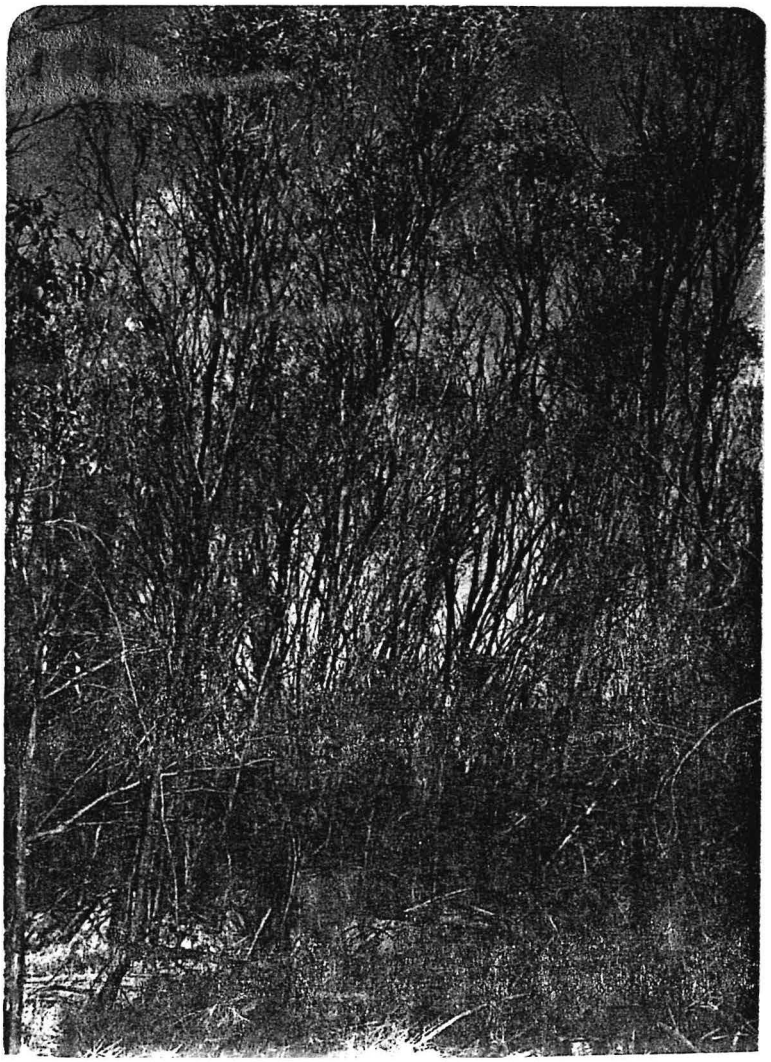
Eucalyptus loxophleba trees to 7m, 2-10% canopy cover with an understorey of Acacia acuminata trees, 2-4m, 30-70% canopy cover.

Other species recorded were: Allocasuarina campestris, Allocasuarina huegeliana, *Avena fatua/sativa, Briza maxima, Waitzia ? acuminata. Soil orange brown sandy loam.

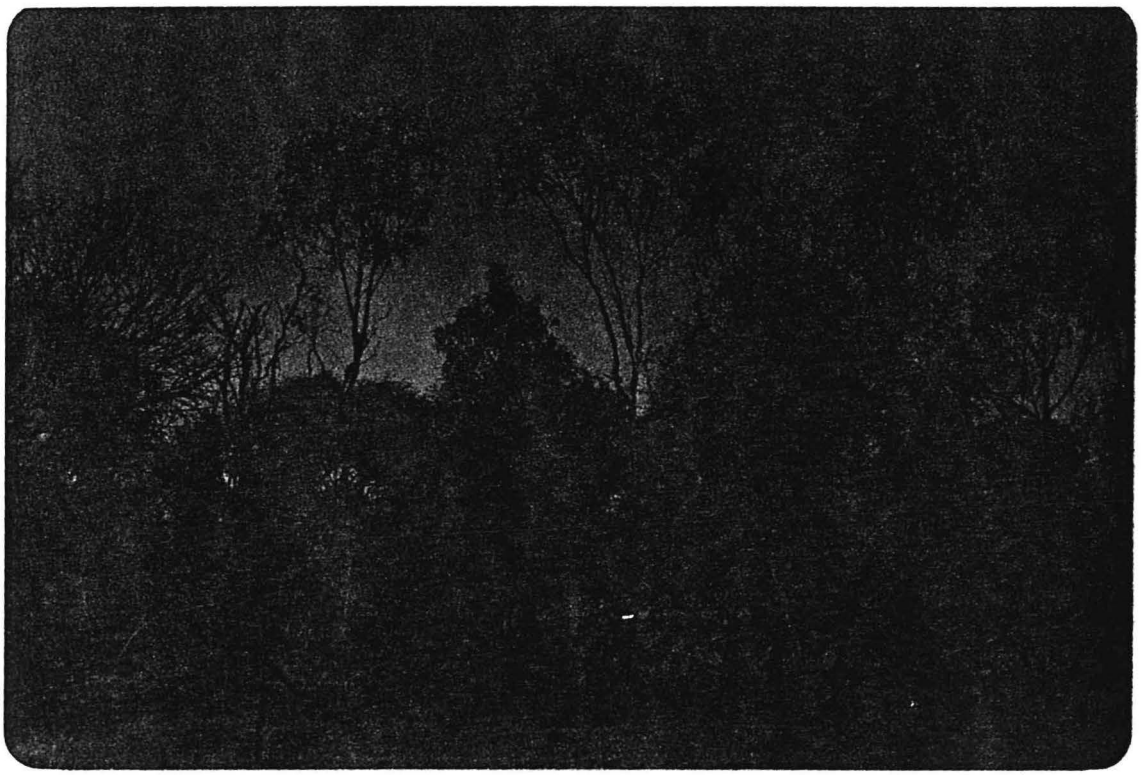
PHOTOGRAPH 1. View across intervening farmland facing west. Acacia lasiocalyx can be seen at the base of the granite outcrop and also growing in soil pockets on the rock.



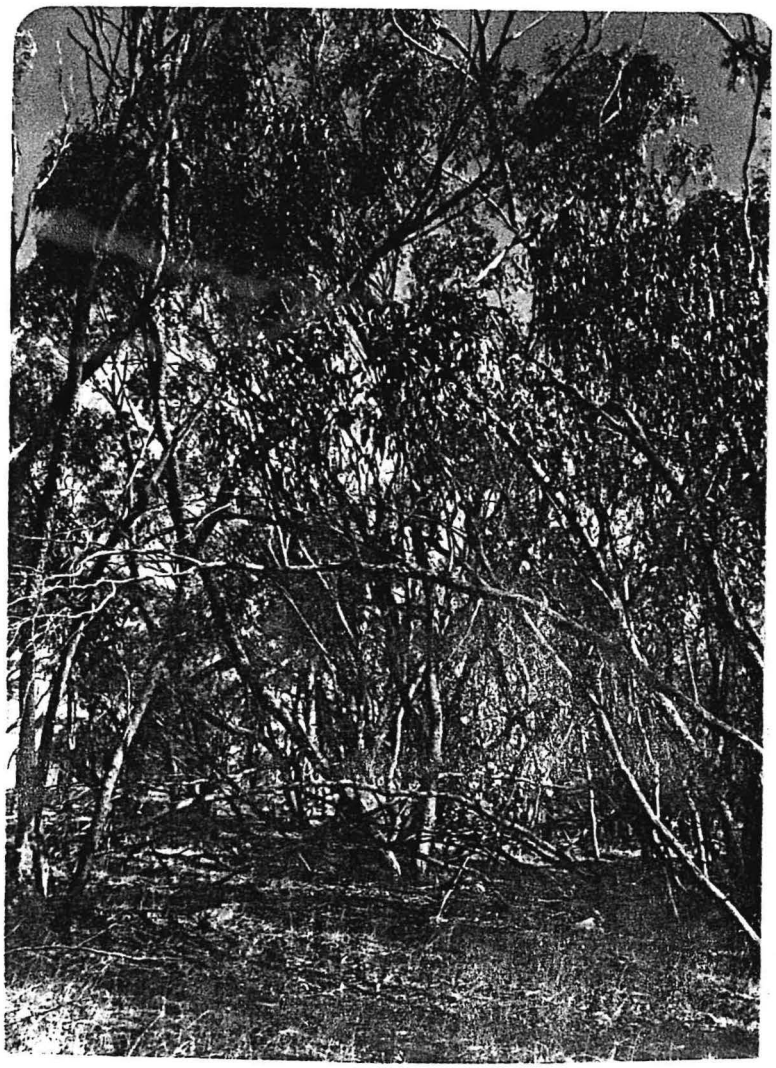
PHOTOGRAPH 2. Acacia lasiocalyx woodland with Grevillea petrophiloides understorey - base of the granite rock.



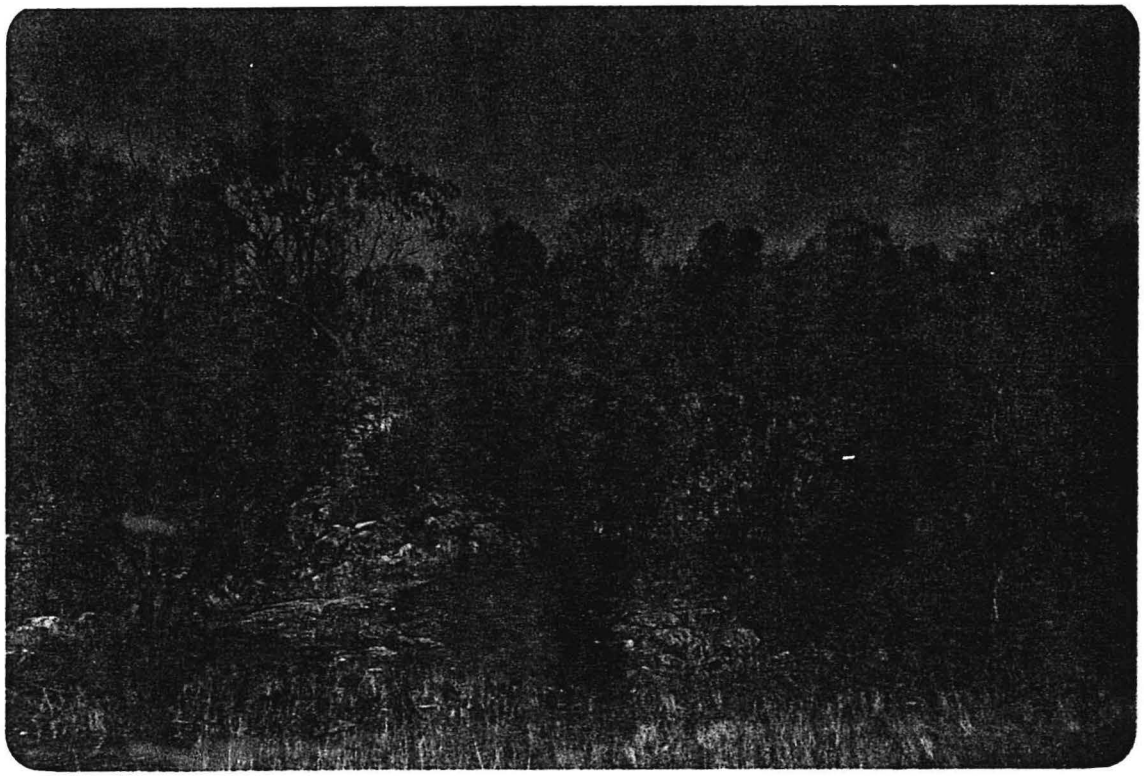
PHOTOGRAPH 3. York Gum (Eucalyptus loxophleba) woodland with an understorey of Jam (Acacia acuminata).



PHOTOGRAPH 4. York Gum (Eucalyptus loxophleba) woodland with no understorey.



PHOTOGRAPH 5. Jam (Acacia acuminata) growing in soil pockets on the granite rock. Eucalyptus loxophleba, Acacia lasiocalyx and Grevillea petrophiloides are also present.



PHOTOGRAPH 6. Acacia lasiocalyx growing in soil pocekts on the granite outcrop. Acacia acuminata and Eucalyptus loxophleba are also present.

QUAIRADING SPRING NATURE RESERVE 11372

LOCATION

Ca 4 km South of Quairading Townsite and shown on lithographs 3/80 E4 and 1:50,000 sheet (Quairading 2333-1).

BACKGROUND

Reserve 11372 was originally gazetted on May 8th, 1908 for the purpose of "wate The reserve was reclassified on November 12th, 1971 for the purpose of "Water an Conservation of Flora and Fauna" and again on November 12th, 1976 "Conservation of Flora and Fauna" and vested in the National Parks and N Conservation Authority. The reserve was officially named Quairading Spring Nature Reserve on November 16th, 1984.

PHYSICAL CHARACTERISTICS

Reserve 11372 is triangular in shape with a total perimeter of ca 2.8 km and an area of 29.1374 ha. The majority of the reserve is 230 m above sea level grading to 340 m ASL at the western corner.

ADJOINING LAND

NORTH-WEST: Surfaced road, Quairading South Road. A ditch runs along the side of the rock hindering access.

NORTH-WEST: Private farmland, cleared. Fence part five strand ringlock, part three plain strands and one barb wire on wooden posts (condition poor) and part rabbit netting leaving only four plain strands in places (condition poor).

SOUTH: Private farmland, cleared. Fence rabbit netting and one plain wire on wooden posts (condition fair).

HUMAN USAGE AND DAMAGE OR DEGRADATION

Vehicels have been driven through the reserve causing some damage vegetation and forming numerous tracks. Some of these tracks have been block but due to the open nature of the vegetation not with great success.

FIREBREAKS

Perimeter firebreaks on adjacent farmland, none on the reserve. Quairading South Road forms a firebreak along the North Eastern boundary.

WEEDS

General infestation of grasses throughout the reserve. Species recorded were: Aira cupaniana, Avena fatua/sativa, Briza maxima, Ursinia anthemoides.

FIRE HISTORY

There is no evidence of fire within the last 20-30 years.

VEGETATION

Three vegetation associations are present on the reserve. Details of these associations can be found in Appendix 4.

1) Wandoo (Eucalyptus wandoo) Low Woodland A.

2) Salmon Gum (Eucalyptus salmonophloia) Woodland over mixed Low Scrub B.

3) Jam (Acacia acuminata) Low Woodland B over Tamma (Allocasuarina campestris) Heath A.

PLANT SPECIES

27 Native plant species were recorded for the reserve, 13 of which are listed by Rye et. al. (1980) as exploited by the wildflower trade.

COMMENTS AND RECOMMENDATIONS

The Salmon Gum woodland on this reserve is of great value as this association is poorly represented in the wheatbelt. The reserve contains nest hollows and is of value as a resting site for transient birds.

APPENDIX 4

WANDOO WOODLAND

Eucalyptus wandoo trees, 10-15 m, 10-30% canopy cover. Scattered shrubs were also present and Mesomelaena preissii 1.0 m, canopy cover 10-30% formed an understorey in places. Species recorded were: Acacia sp. nov. (431), Acacia lasiocalyx, *Avena fatua/sativa, Banksia prionotes, Borya nitida, *Briza maxima, Dianella revoluta, Eremaea pauciflora, Enchylaena tomentosa, Grevillea paniculata, Hakea lissocarpha, Hakea scoparia, Loxocarya ? pubescens, Melaleuca ? pentagona, Olearia revoluta, Santalum acuminatum, *Ursinia anthemoides. Soil light brown sandy loam.

SALMON GUM WOODLAND

Eucalyptus salmonophloia trees, 10-25m, 10-30% canopy cover with scattered Eucalyptus wandoo to 15m. Understorey is mixed shrubs 0.5-1.5 m, 10-30% canopy cover. Species recorded were: Acacia lasiocarpa var. sedifolia, Acacia leptospermoides ssp. leptospermoides, *Aira cupaniana, Cassia nemophila, Dodonaea bursariifolia, Enchylaena tomentosa, Grevillea paniculata, Hakea preissii, Loxocarya ? pubescens, Olearia revoluta, Templetonia sulcata, Santalum acuminatum. Soil light brown silty clay.

JAM WOODLAND

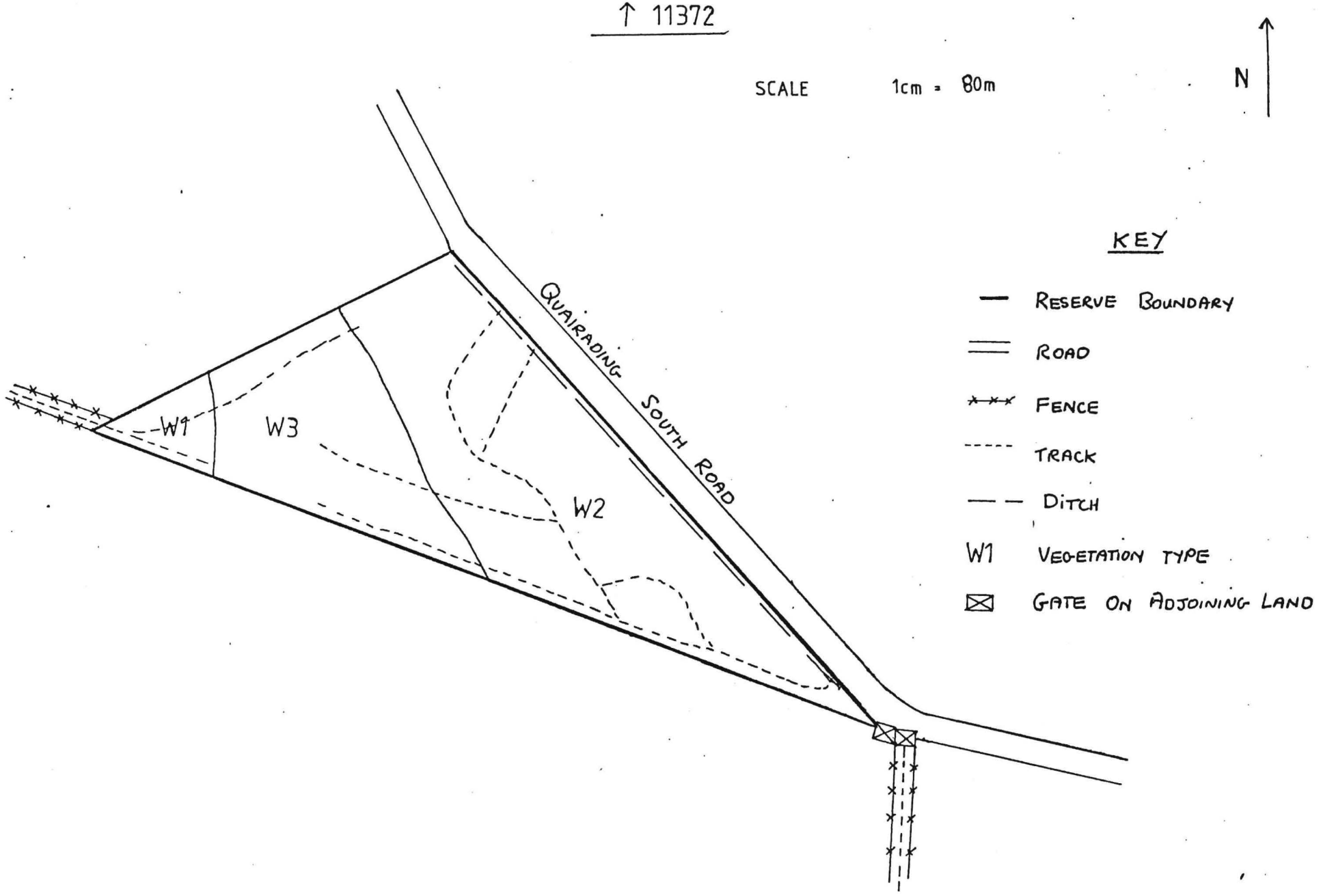
Acacia acuminata trees, 4-5 m, 10-30% canopy cover over Allocasuarina campestris shrubs 1-2 m, 30-70% canopy cover. Also recorded were: Acacia lasiocarpa var. sedifolia Borya nitida Dianella revoluta Grevillea paniculata Hakea scoparia Isopogon divergens, Mesomelaena preissii, Santalum acuminatum. Soil light brown sandy loam.

FIGURE 5

QUAIRADING SPRING NATURE RESERVE

↑ 11372

SCALE 1cm = 80m



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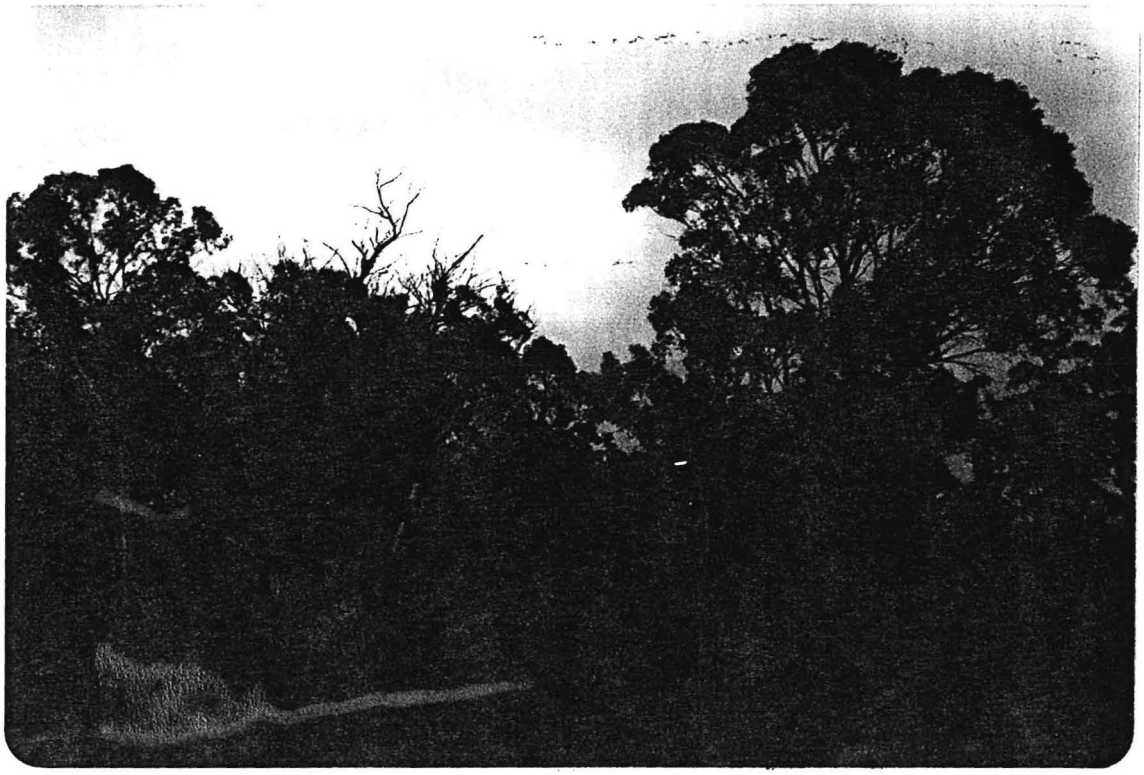
VEGETATION OF QUAIRADING SPRING NATURE RESERVE 11372

KEY TO VEGETATION TYPES.

		Muir (1977) Vegetation Code.
W 1.	Wandoo (Eucalyptus wandoo) Woodland	LAi . SCi
W 2.	Salmon Gum (Eucalyptus salmonophloia) Woodland	Mi . SBi
W 3.	Jam (Acacia acuminata) Woodland	LBi . SAc

PHOTOGRAPH 1. Eucalyptus wandoo woodland.



PHOTOGRAPH 2. Salmon Gum (Eucalyptus salmonophloia) woodland.

PHOTOGRAPH 3. Jam (Acacia acuminata) woodland with Allocasuarina campestris understorey.

MOORANING NATURE RESERVE 11776

LOCATION

Ca 17.5 Km North of Quairading townsite and shown on lithograph 3/80 E2 and 1:50,000 sheet Youndegin 2334-11.

BACKGROUND

Reserve 11776 was originally gazetted on March 26th, 1909 for the purpose of "Water". On July 9th, 1915 the reserve was vested in the Minister for water supply, sewerage and drainage. The reserve was reclassified on June 27th, 1952 for the "Preservation of Flora" and again on August 13th, 1971 for "Water and Conservation of Flora and Fauna" and vested in the Minister for Water Resources.

PHYSICAL CHARACTERISTICS

Reserve 11776 is rectangular in shape with a total perimeter of Ca 2.6 km and an area of 40.4686 ha.

The highest point on the reserve is near the northern boundary at 290 m above sea level, grading to 270 m ASL towards the southern boundary.

ADJOINING LAND

NORTH: Privately owned farmland, cleared. Fence part 7 strand ringlock plus one barb wire on steel posts (condition good) part rabbit netting plus one barb wire (condition fair).

SOUTH: Gravel road, Cubbine Road.

EAST: Privately owned farmland, cleared. Fence five strand ringlock plus one plain wire (condition good).

WEST: Privately owned farmland, cleared. Fence five strand ringlock on wooden posts (condition fair).

HUMAN USAGE AND DAMAGE OR DEGRADATION

1) One of the neighbouring farmers reports that the population of Woylies (Bettongia penicillata) has declined over the past few years due to the hunting of this species on the reserve.

2) The Mooranning Wells in the South-West corner of the reserve are of historical interest.

WEEDS

Severe infestation of wild oats throughout the reserve. Other species recorded were Aira cupaniana and Ursinia anthemoides.

FIRE BREAKS

Perimeter fire breaks on adjacent farmland. none on the reserve. Cubbine Road forms a fire break to the south.

FIRE HISTORY

The neighbouring farmer reports that the reserve was burnt in 1973-74. Evidence of this fire can be seen. Dead York Gums are scattered throughout the reserve and young tree are also present. 3-4 m

VEGETATION

Five vegetation associations are present on the reserve. Details of these associations and plant species recorded can be found in Appendix 5.

1) Granite Outcrop: Areas of exposed granite with patches of Borya nitida or scattered shrubs.

2) Jam Woodland: Acacia acuminata Low Woodland B with scattered York Gum (Eucalyptus loxophleba) as emergents. Small granite outcrops or pavement are scattered throughout.

3) York Gum Woodland: Eucalyptus loxophleba Open Low Woodland A over Jam (Acacia acuminata) Low Woodland B.

4) Acacia lasiocalyx Woodland: Acacia lasiocalyx Dense Low Forest A over Allocasuarina huegeliana Open Low Woodland B.

5) Jam and Sheoak Woodland: Acacia acuminata and Allocasuarina huegeliana Low Forest B.

PLANT SPECIES

Twelve native plant species were recorded for the reserve, 8 of which are listed by Rye et. al. (1980) as exploited by the wildflower trade.

COMMENTS AND RECOMMENDATIONS

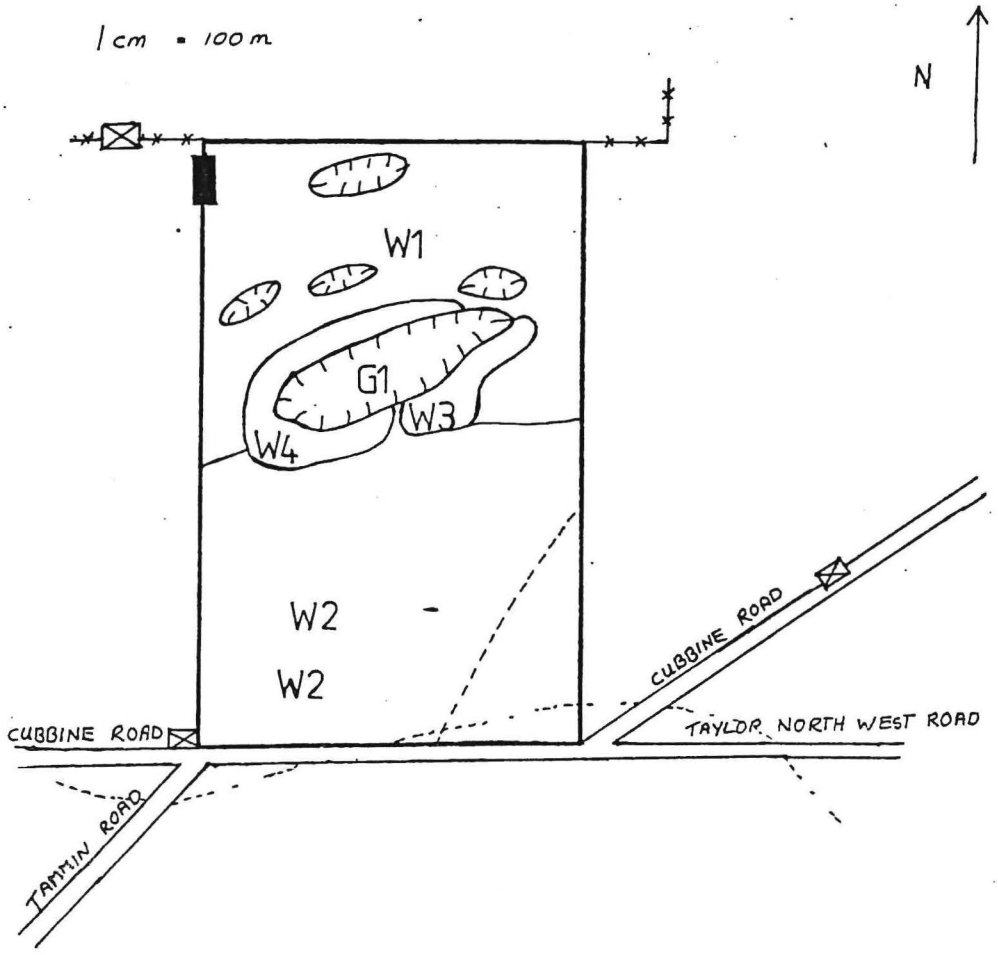
The neighbouring farmer reports that the reserve has a spectacular display of wildflowers in the spring including a number of orchid species. Although weeds especially wild oats have become a problem. The presence of Woylies (Bettongia penicillata) was also reported. The reserve contains nest hollows and is important as a resting site for transcient birds. I recommend that this reserve be vested in the National Parks and Nature Conservation Authority and that a sign be erected to indicate that Flora and Fauna are protected.

FIGURE 6 MOORANNING NATURE RESERVE

11776

SCALE 1 : 10,000

1 cm = 100 m



KEY

- RESERVE BOUNDARY
- ROAD
- TRACK
- FENCE
- SEASONAL WATERCOURSE
- ROCK
- GATE OUT OF RESERVE
- GATE ON ADJOINING LAND

VEGETATION OF MOORANING NATURE RESERVE 11776

KEY TO VEGETATION TYPES

		Muir (1977) Vegetation Code
G1	Granite Outcrop	
W1	Jam (*Acacia acuminata*) Woodland	LBi
W2	York Gum (*Eucalyptus loxophleba*) Woodland	LAr . LBi
W3	*Acacia lasiocalyx* Woodland	LAd
W4	Jam (*Acacia acuminata*) and Sheoak (*Allocasuarina huegeliana*) Woodland	LBc

APPENDIX 5

1) GRANITE OUTCROPS

Mostly bare granite with patches of Borya nitida and scattered plants of Dodonaea viscosa ssp. angustissima, Stypandra imbricata and Lepidosperma ? pruinosum.

2) JAM WOODLAND

Acacia acuminata trees, 3-4 m, 10-30% canopy cover (patchy, - in some places 30-70% cover) with scattered Eucalyptus loxophleba emergent to 12m. Small granite outcrops or pavement are scattered throughout. Other species recorded were: *Aira cupaniana, *Avena fatua/sativa, Allocasuarina campestris, Dianella revoluta, Lepidosperma ? pruinosum, Waitzia ? acuminata, *Ursinia anthemoides. Soil dark brown sandy loam.

3) YORK GUM WOODLAND

Eucalyptus loxophleba trees, 4-12 m, immature and mature, 2-10% canopy cover. The understorey is Acacia acuminata trees, 3-4 m, 10-30% cover. *Avena fatua/sativa was also recorded to 1.0 m in places. Soil light brown sandy loam

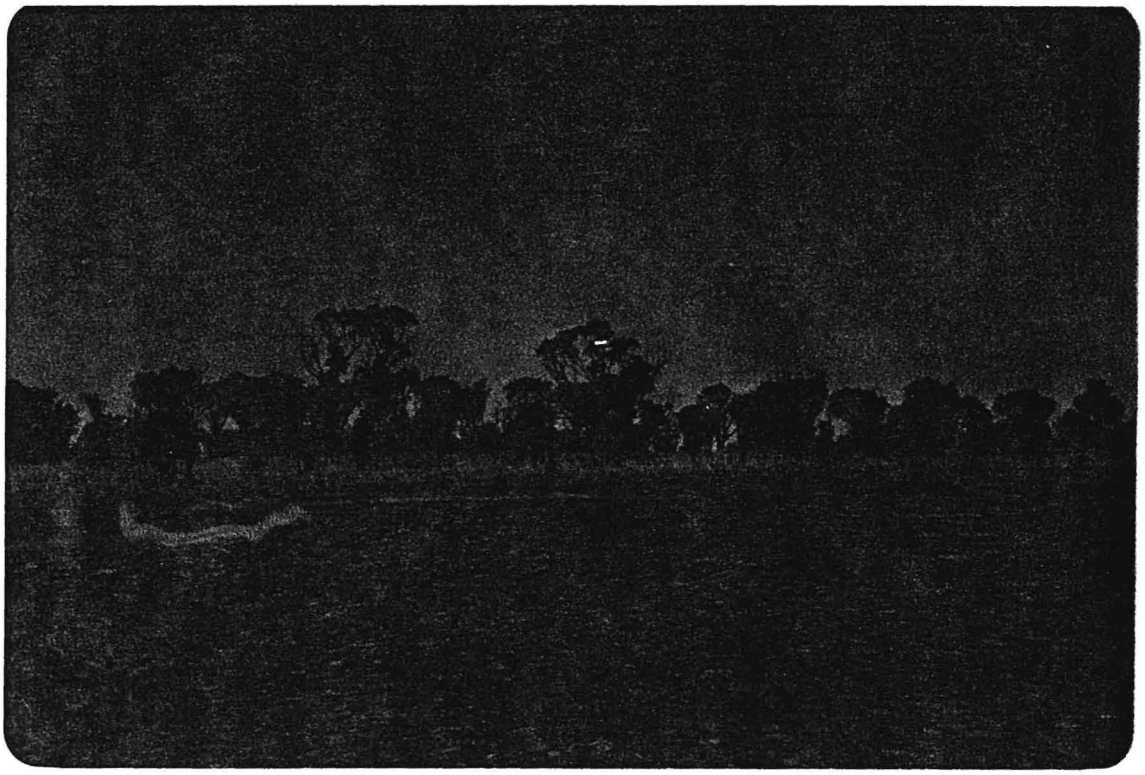
4) ACACIA LASIOCALYX WOODLAND

Acacia lasiocalyx trees to 6m, 70-100% canopy cover. Allocasuarina huegeliana trees are also present to 3m, 2-10% cover. This association occurs at the base of a relatively large granite outcrop where water run-off is high. Soil is dark orange brown sandy loam.

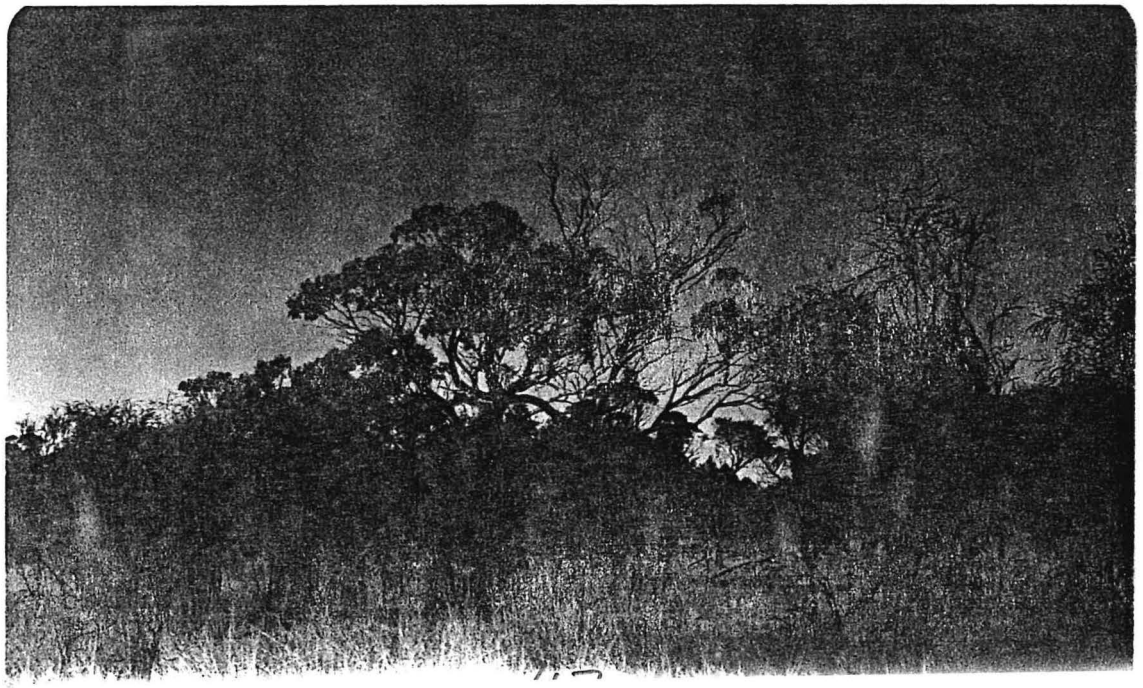
5) JAM AND SHEOAK WOODLAND

Acacia acuminata and Allocasuarina huegeliana trees, 2-4 m, 30-70% canopy cover. Other species recorded were: *Avena fatua/sativa and Chrysocoryne pusilla. Soil dark brown sandy loam.

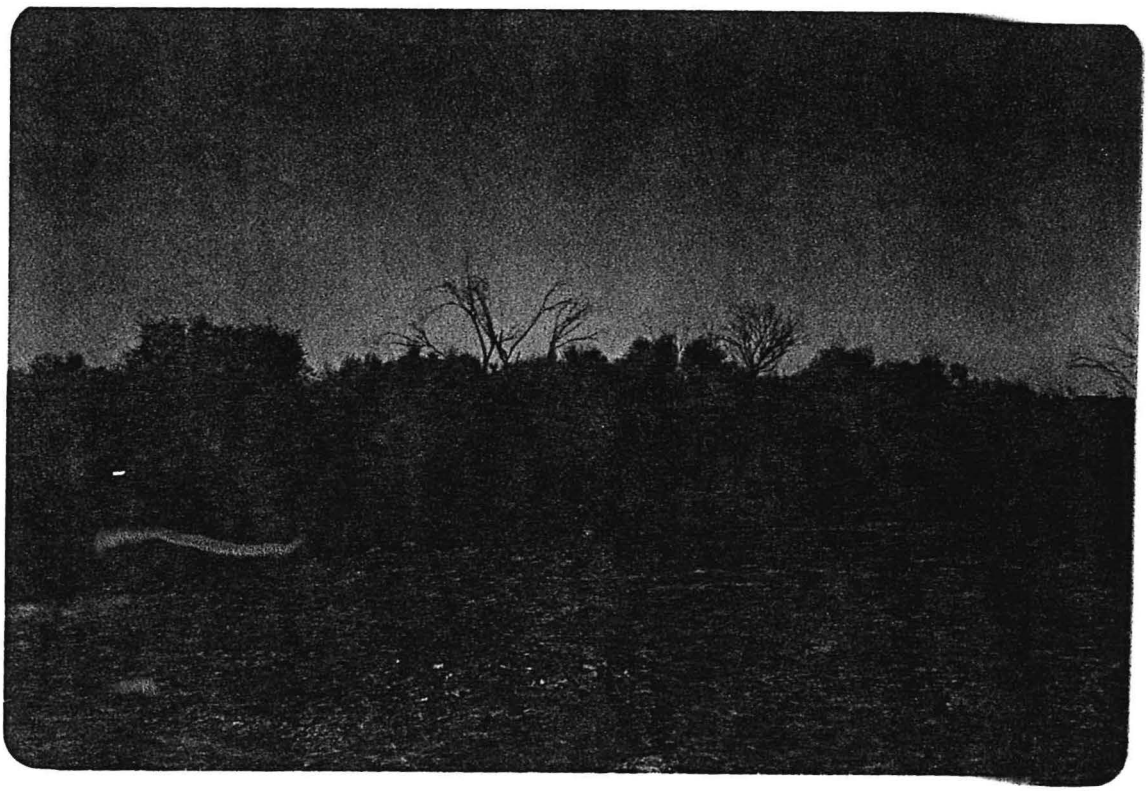
PHOTOGRAPH 1. Granite outcrop with Jam (Acacia acuminata) woodland with emergent York Gum (Eucalyptus loxophleba) in the background.



PHOTOGRAPH 2. York Gum (Eucalyptus loxophleba) woodland with Jam (Acacia acuminata) understorey. The density of the York Gums increases towards the Southern boundary of the Reserve



PHOTOGRAPH 3. Acacia lasiocalyx woodland at the base of a granite outcrop.



PHOTOGRAPH 4. Jam (Acacia acuminata) and Sheoak (Allocasuarina campestris) woodland.

JENNABERRING NATURE RESERVE 18155

LOCATION

Ca 11 km North North-East of Quairading Townsite and shown on lithographs 3/80 E3 and 1:50,000 Youndegin 2334-11. The reserve is situated within the boundaries of Jennaberring townsite.

BACKGROUND

Reserve 18155 was originally gazetted on November 10th, 1922 for the purpose of "Hall Site, Agricultural and Recreation". On January 19th, 1923 the site of the reserve was changed from Lot 59 to Lot 61. The reserve was reclassified on July 30th, 1971 for the "Conservation of Flora and Fauna" but remains unvested.

PHYSICAL CHARACTERISTICS

Jennaberring Nature Reserve 18155 is rectangular in shape with a total perimeter of ca 0.9 km and an area of 6.7510 ha. The highest point on the reserve is 260 m Above Sea Level at the southern boundary grading to 250 m ASL at the northern boundary.

ADJOINING LAND

NORTH Farmland, cleared Fence rabbit netting with one barb wire (condition fair-good).

SOUTH: Gravel Road, Mount Stirling Road.

EAST: Farmland, cleared. Fence rabbit netting plus one barb wire (condition good).

WEST: Gravel Road, Badjaling North Road.

HUMAN USAGE AND DAMAGE OR DEGRADATION

A gravel pit covers most of the reserve. The area has now been ripped and will be left to regenerate.

WEEDS

Infestation of grasses in the Wandoo woodland area.

FIRE HISTORY

There is no evidence of fire within the last 20-30 years.

FIRE BREAKS

Perimeter fire breaks on adjacent farmland to the north and east. Mt. Stirling and Badjaling Roads form firebreaks to the south and west.

VEGETATION

Two vegetation associations are present on the reserve. Details of these associations and plant species recorded can be found in Appendix 6.

1) Tamma Heath: Allocasuarina campestris Heath A.

2) Wandoo Woodland: Eucalyptus wandoo Low Woodland A over Eucalyptus redunca, Eucalyptus erythronema Open Tree Mallee.

PLANT SPECIES

Ten native plant species were recorded for the reserve, all of which are listed by Rye et al (1980) as exploited by the Wildflower trade.

COMMENTS AND RECOMMENDATIONS

Reserve 18155 is of value in a shire where a large percentage of reserved land is salt flat. Therefore rehabilitation of the gravel pit area is of great importance. Five bird species were noted on the reserve including Crested Pigeons, Willy Wag Tails, and 28 Parrots. Nest hollows are present and the reserve is of value as a resting place for transient birds.

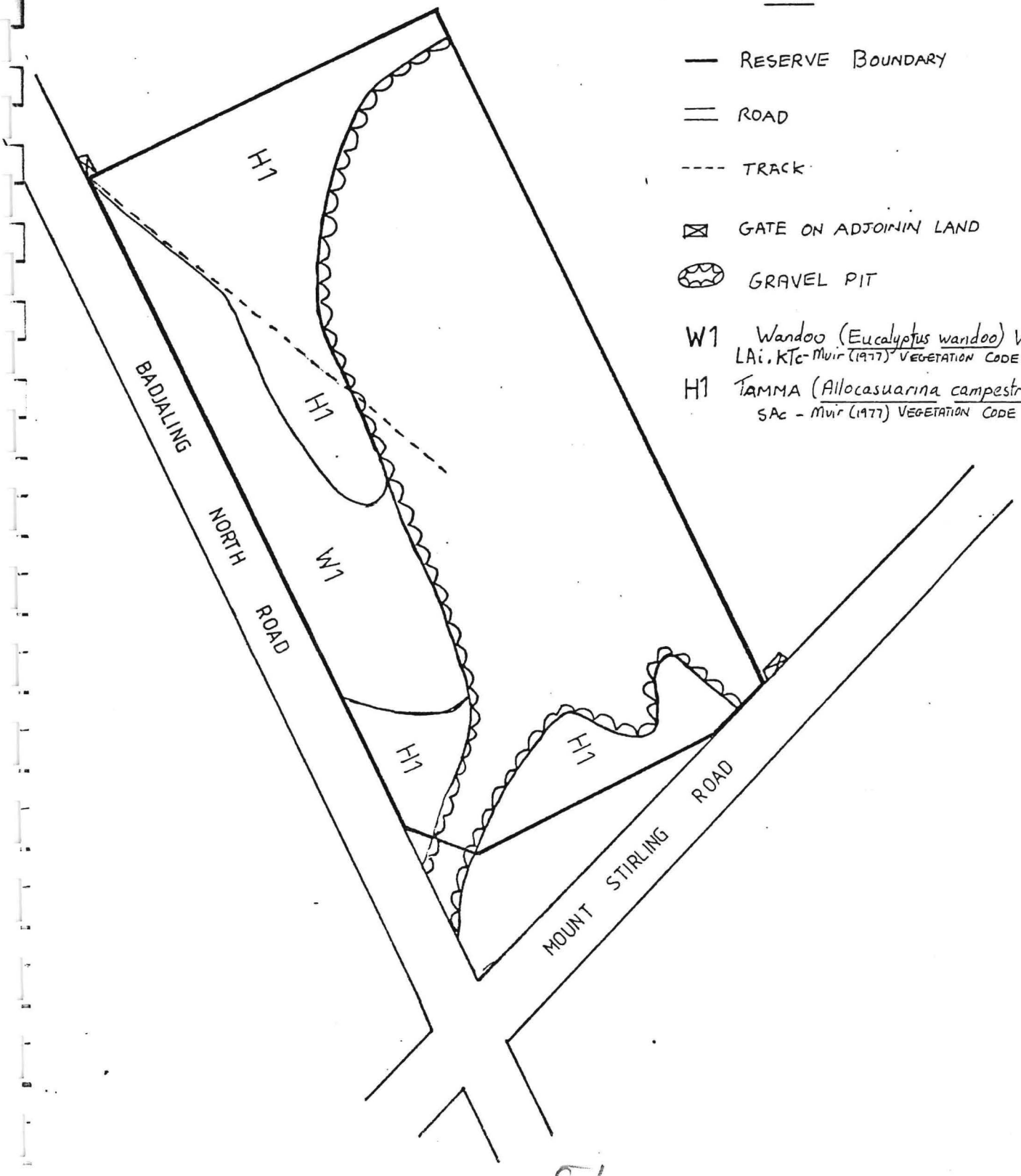
FIGURE 7 JENNABERRING NATURE RESERVE

↑ 18155

N

SCALE 1 : 2500

1cm = 25m



APPENDIX 6

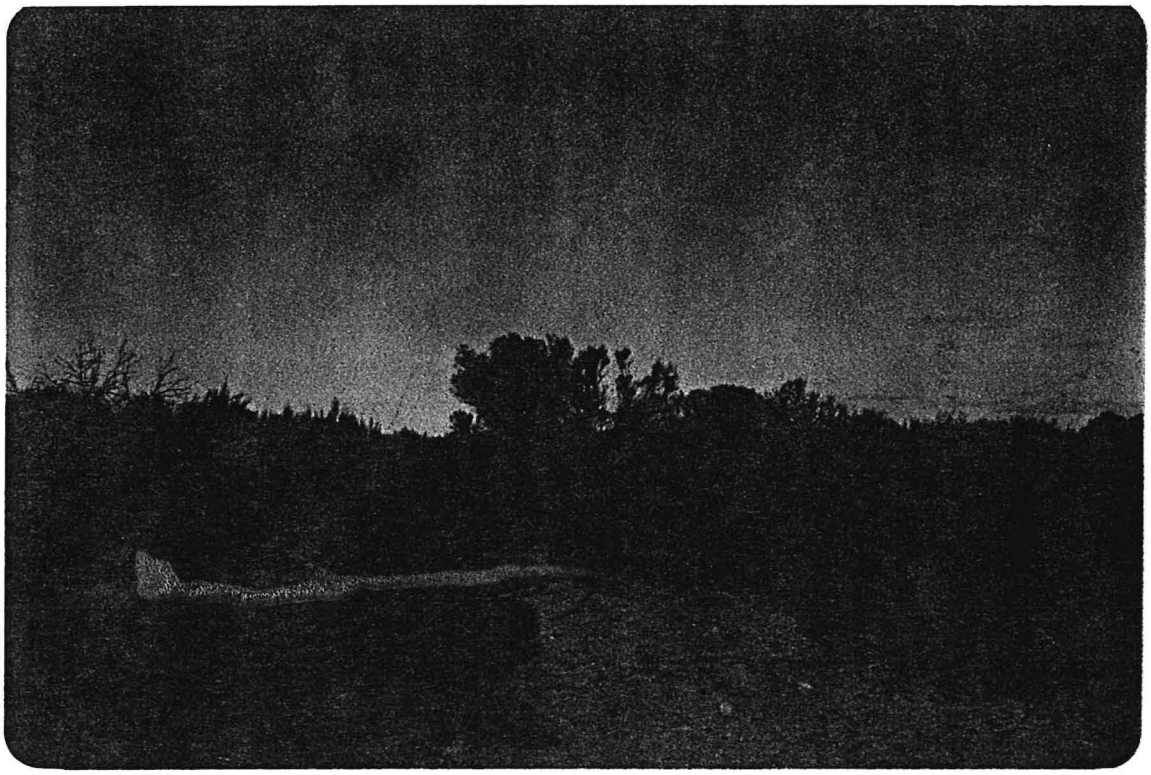
1) TAMMA HEATH

Allocasuarina campestris shrubs, 1-2 m, 30-70% canopy cover. Other species recorded were: Acacia acuminata, Borya nitida, Hakea scoparia, Leptospermum erubescens. Soil light brown clay loam, 60-80% laterite.

2) WANDOO WOODLAND

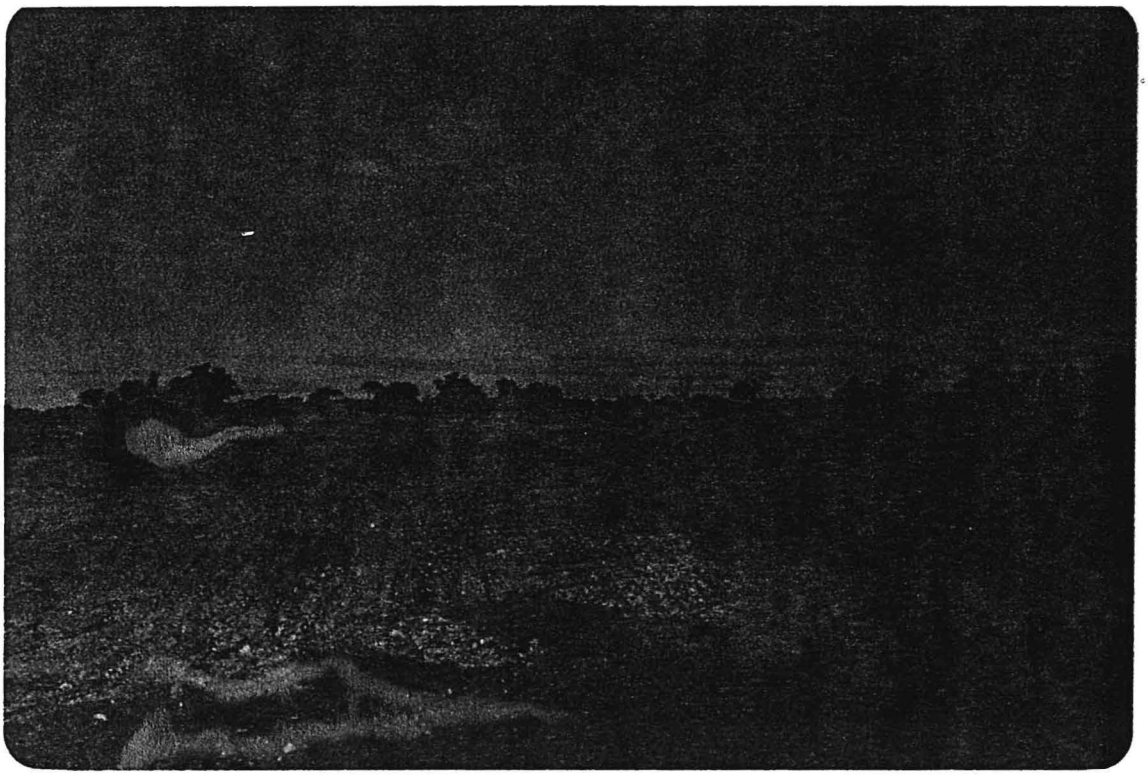
Eucalyptus wandoo trees, 10-15 m, mature to senescent, 10-30% canopy cover. The understorey is Eucalyptus redunca var. subangusta and Eucalyptus erythronema tree malle, 3-4 m, 10-30% canopy cover (patchy). Other species recorded were: Eucalyptus salmonophloia (two) Eucalyptus salubris (one). Soil light pink brown sandy clay

PHOTOGRAPH 1. Tamma (Allocasuarina campestris) heath.



PHOTOGRAPH 2. Wandoo woodland with mallee understorey.

PHOTOGRAPH 3. Gravel pit on Reserve 18155.



PANTAPIN NATURE RESERVE 18342

LOCATION

Near the Western boundary of Pantapin townsite, ca 25 km West of Quairading townsite and shown on lithographs 4/80 A3 and 1:50,000 Pantapin sheet 2434-111.

BACKGROUND

The reserve was originally gazetted on July 27th, 1923 for the purpose of a school site. On October 1st, 1976 the reserve was reclassified for the "Conservation of Flora and Fauna" and vested in the National Parks and Nature Conservation Authority. On November 16th, 1984 the reserve was officially named Pantapin Nature Reserve.

PHYSICAL FEATURES

Reserve 18342 is roughly rectangular in shape with a total perimeter of ca 325 m and area of 0.4629 ha. The reserve is 330 m Above Sea Level.

ADJOINING LAND

NORTH: Uncleared land, part of Reserve 18798 (water, 7.6713 ha).

SOUTH Gravel Road Pantapin West Road

EAST: Uncleared land, part of Reserve 18798.

WEST: Privately owned farmland, cleared. Fence rabbit netting plus two strands of barb wire (condition good).

HUMAN USAGE AND DAMAGE OR DEGRADATION

1) A track runs through the reserve to a rubbish dum most of which appears to be outside the limits of the reserve.

2) Old signs of tree felling.

WEEDS

General infestation of wild oats throughout the reserve.

FIREBREAKS

No firebreaks to the North and East of the reserve. A farm track and Pantapin West Road form firebreaks to the west and south.

FIRE HISTORY

There is no evidence of fire in the last 20-30 years.

VEGETATION

Two vegetation associations are present on the reserve. Details of these associations can be found in Appendix 7.

1) Mallee Area: Eucalyptus redunca var. melanophloia, Eucalyptus celestroides ssp. virella, Eucalyptus ? eremophila Dense Tree Mallee with scattered shrubs.

2) Wandoo Woodland: Eucalyptus wandoo Low Forest A with scattered Eucalyptus salmonophloia.

PLANT SPECIES

Eleven native plant species were recorded for the reserve, of which 9 are listed by Rye et. al. (1980) as exploited by the wildflower trade. Acacia ? glaucoptera was not flowering at the time of the survey. The identity of this plant should be checked when flowering material becomes available as this species has not previously been recorded this far North.

COMMENTS AND RECOMMENDATIONS

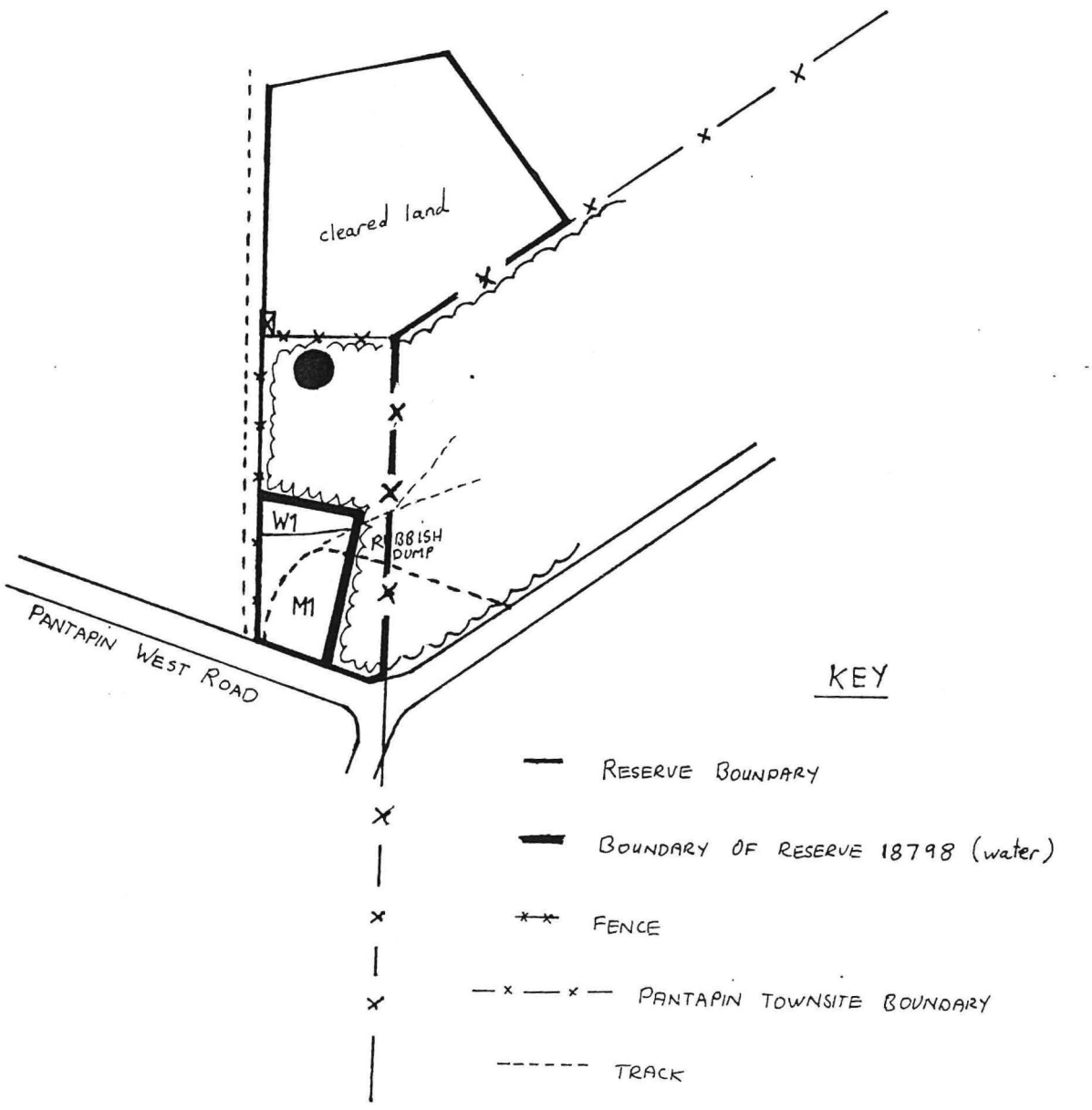
The value of Pantapin reserve would be greatly enhanced by the addition of adjacent uncleared land. This uncleared land consists of part of reserve 18798 and areas within the Pantapin townsite boundary where Mallee, Wandoo and Salmon Gums were noted.

A sign should be erected to indicate that rubbish dumping is prohibited on the reserve.

FIGURE 8 PANTAPIN NATURE RESERVE 18342

SCALE 1:5,000

1 cm = 50m



KEY

- RESERVE BOUNDARY
- BOUNDARY OF RESERVE 18798 (water)
- FENCE
- PANTAPIN TOWNSITE BOUNDARY
- TRACK
- DAM
- ADJOINING BUSH
- ROAD
- GATE ON ADJOINING LAND

W1 WANDOO (*Eucalyptus wandoo*) WOODLAND LAc - Muir (1977) VEGETATION CODE

M1 MALLEE AREA kTd - Muir (1977) VEGETATION CODE

APPENDIX 7

MALLEE ASSOCIATION

Eucalyptus celestroides ssp. virella, Eucalyptus redunca var. melanophloia and Eucalyptus ? eremophila tree mallee, 4-5 m, 70-100% canopy cover. Scattered shrubs are also present. Species recorded were: Acacia ? glaucoptera, *Avena fatua/sativa, Gastrolobium trilobum. Soil light brown sandy clay loam.

WANDOO WOODLAND

Eucalyptus wandoo, 10-15 m, 30-70% canopy cover with scattered Eucalyptus salmonophloia to 15m. Scattered shrubs are also present. Species recorded were: Acacia ? glaucoptera, Acacia erinacea, *Avena fatua/sativa, Dianella revoluta, Grevillea patentiloba, *Ursinia anthemoides. Soil light brown sandy clay loam.

PHOTOGRAPH 1. Mallee association. Some rubbish can be seen in the foreground.

PHOTOGRAPH 2. Wandoo woodland in reserves 18342 and 18798. Picture taken facing North-West

DANGIN NATURE RESERVE 19570

LOCATION

Ca 7.5 km West of Quairading townsite and shown on lithograph 3/80 D4 and 1:50,000 sheet, Quairading 2333-I.

BACKGROUND

Reserve 19570 was originally gazetted on June 24th, 1927 for the purpose of a "Sanitary Site". On July 30th, 1971 the reserve was reclassified for the "Conservation of Flora and Fauna". The Reserve was officially named Dangin Nature Reserve on November 16th, 1984 and remains unvested.

PHYSICAL CHARACTERISTICS

Dangin Nature Reserve is "rhomboid" in shape with a total perimeter of ca 0.8 km and an area of 4.0469 ha. The highest point on the rerserve is along the North Eastern boundary which is ca 315 m Above Sea Level grading down to ca 305 m ASL along the south western boundary.

ADJOINING LAND

North-West Privately owned farmland, uncleared. Fence 6 strand ringlock with one barb wire on wooden posts (Condition good).

North-East: Privately owned farmland, uncleared. Fence 6 strand ringlock with one barb wire (condition good).

South-East: Gravel road, Toapin Road. Fence five strand ringlock on steel posts (condition fair-poor).

South-West: Gravel road, Dangin North Road. Fence 6 strand ringlock on steel posts (condition fair).

HUMAN USAGE AND DAMAGE OR DEGRADATION

1) Old rubbish dump at the South-Eastern end of the reserve. There is no evidence of recent dumping although the fence along Toapin Road has fallen into disrepair in places. Also the sign prohibiting the dumping of rubbish is no longer standing.

2) Old signs of tree felling.

WEEDS

General perimeter infestation of grasses in areas bordering on the gravel roads. Aira cupaniana and Ursinia anthemoides were recorded.

FIREBREAKS

Dangin North Road and Toapin Road form firebreaks to the South West and South East of the reserve. No firebreaks are present between the reserve and uncleared land to the North West and North East.

VEGETATION

Five vegetation associations are present on the reserve. Details of these associations and plant species recorded can be found in Appendix 8.

1) Mallet Woodland: Eucalyptus astringens Low Forest A with scattered shrubs

2) Morrel and Mallet Woodland Eucalyptus longicornis and Eucalyptus astringens Low Forest A.

3) Morrel and Wandoo Woodland: Eucalyptus longicornis and Eucalyptus wandoo Low Forest A.

4) Wandoo Woodland: Eucalyptus wandoo Dense Low Forest A in places over Oxylobium parviflorum Dense Heath B.

5) Mallee Area: Eucalyptus anceps Tree Mallee with scattered shrubs.

PLANT SPECIES

11 Native plant species were recorded for the reserve, 7 of which are listed by Rye et. al. (1980) as exploited by the wildflower trade.

COMMENTS AND RECOMMENDATIONS

Reserve 19570 has quite a high diversity of plant associations considering its size. The value of the reserve would be enhanced by the addition of adjacent uncleared land. This uncleared land consisted of Mallet (Eucalyptus astringens). and Wandoo Woodlands. Unfortunately there was not sufficient time to survey these areas.

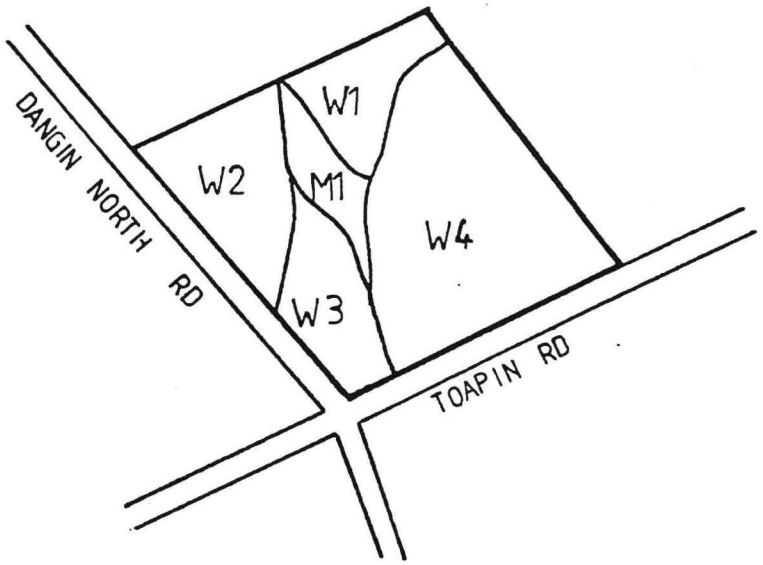
FIGURE 9

DANGIN NATURE RESERVE ↑ 19570

SCALE 1 : 5,000

1 cm = 50m

N



KEY

— REGERVE BOUNDARY

═══ ROAD

KEY TO VEGETATION TYPES

		MUIR (1977) VEGETATION CODE
W1	MALLET (Eucalyptus astringens) Woodland	LAc
W2	MORREL (E. longicornis) and MALLET (E. astringens) Woodland	LAc
W3	MORREL (E. longicornis) and Wandoo (E. wandoo) Woodland	LAc
W4	WANDOO (E. wandoo) WOODLAND	LAd. SBl
M1	Eucalyptus anceps TREE MALLEE	KIc

APPENDIX 8

1) MALLET WOODLAND

Eucalyptus astringens trees, 8-10 m, 30-70% canopy cover scattered shrubs of Melaleuca uncinata and Melaleuca undulata are also present. Soil light brown sandy loam 5% laterite.

2) MORREL AND MALLET WOODLAND

Eucalyptus longicornis and Eucalyptus astringens trees. 10-15 m. 30-70% canopy cover. Scattered shrubs are also present. Species recorded were: Santalum acuminatum, Dodonaea pinifolia. Soil light brown sandy loam, 5% laterite.

3) MORREL AND WANDOO WOODLAND

Eucalyptus longicornis and Eucalyptus wandoo trees, 10-15m, 30-70% canopy cover. No understorey is present. Soil light grey clay loam.

4) WANDOO WOODLAND

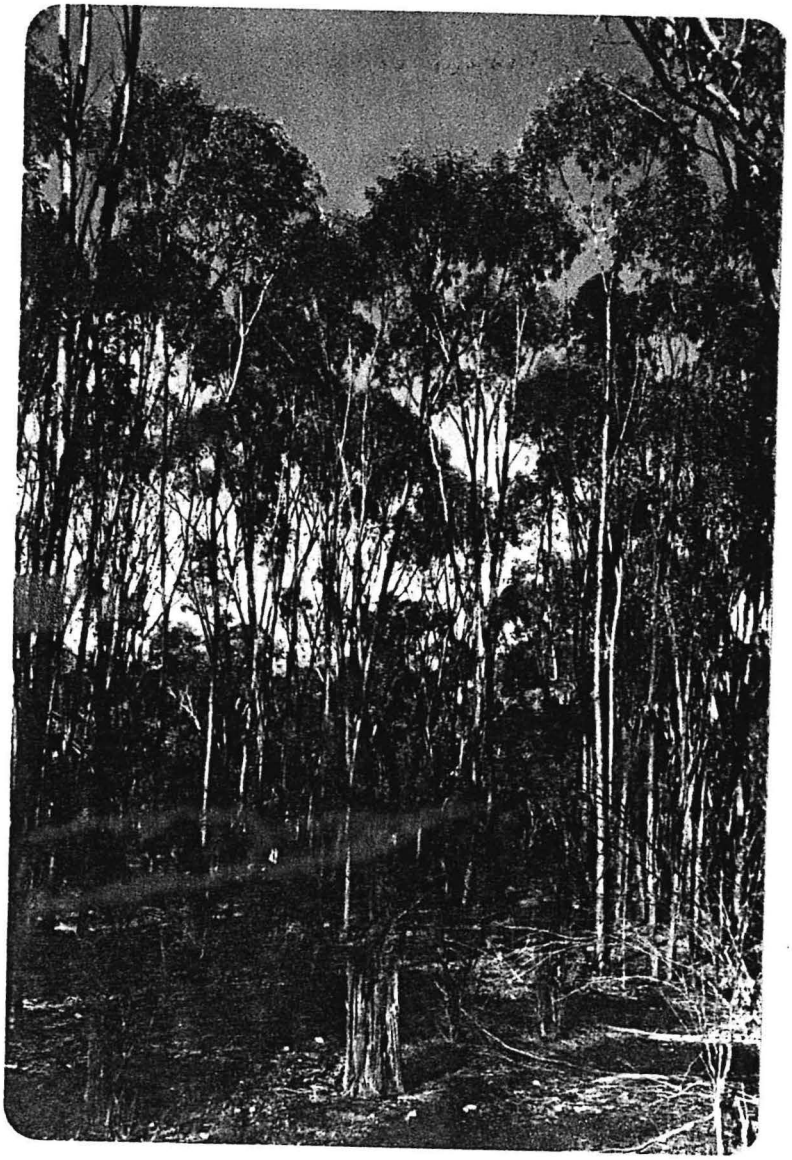
Eucalyptus wandoo trees. 5 - 15 m mature and immature 70-100% canopy cover In some areas there is an understorey on Oxylobium parviflorum shrubs to 1.5 m 70-100% canopy cover. Other species recorded were: *Aira cupaniana, Borya nitida Gastrolobium trilobum Melaleuca uncinata and *Ursinia anthemoides Soil light brown sandy loam.

5) MALLEE AREA

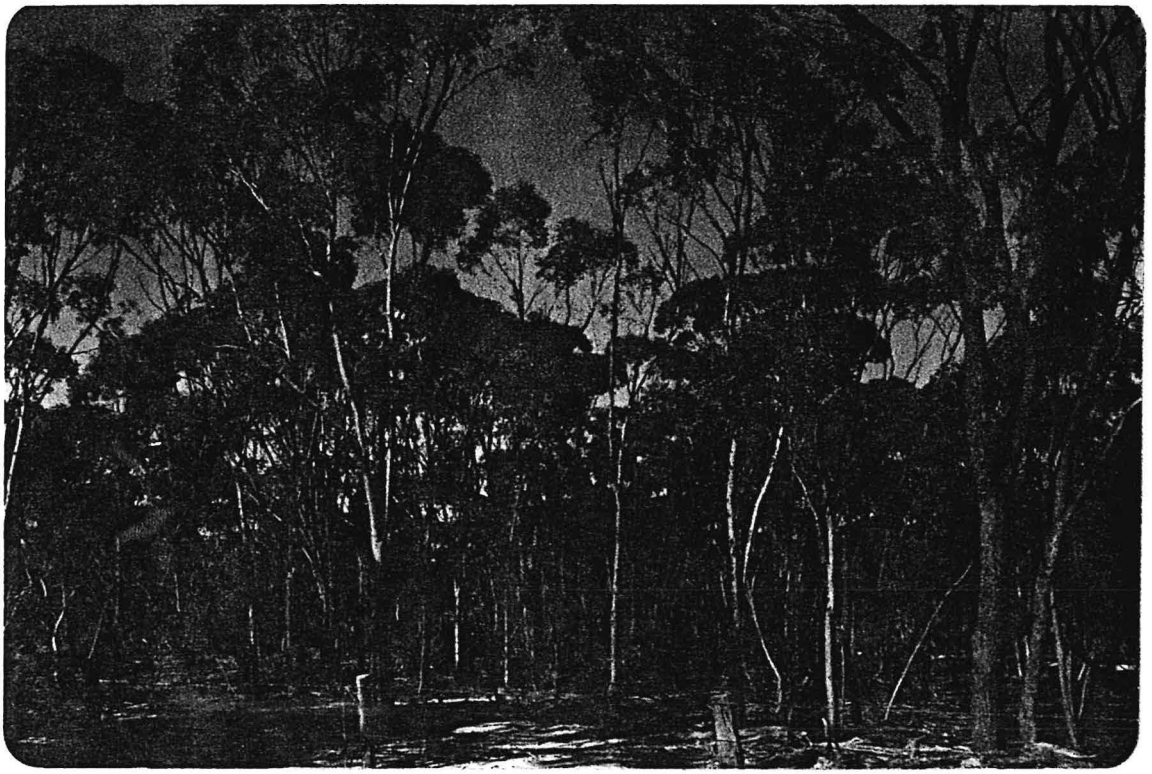
Eucalyptus anceps tree and tree mallee, 4-5 m, 30-70% canopy cover. Scattered shrubs of Melaleuca undulata are also present. Soil light grey sandy clay, 5% laterite.

*Introduced species.

PHOTOGRAPH 1. Brown Mallet (Eucalyptus astringens) Woodland.

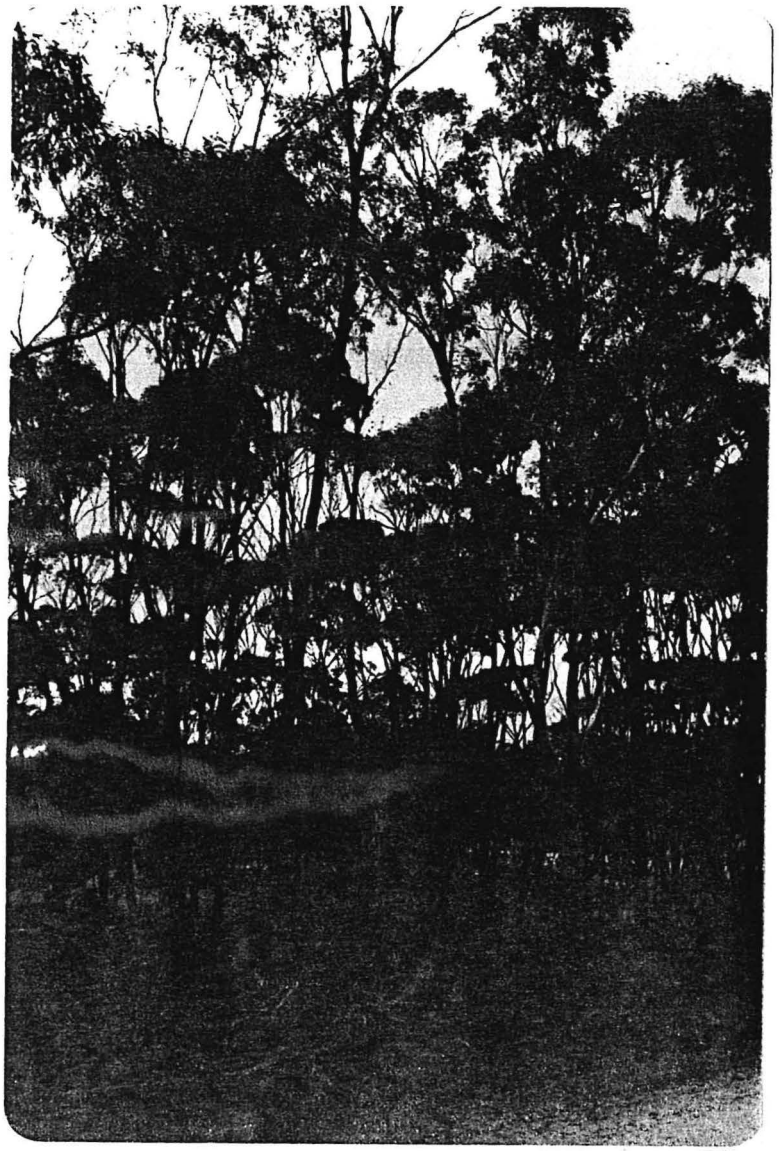


PHOTOGRAPH 2. Morrel (Eucalyptus longicornis) and Mallet (Eucalyptus astringens) Woodland.

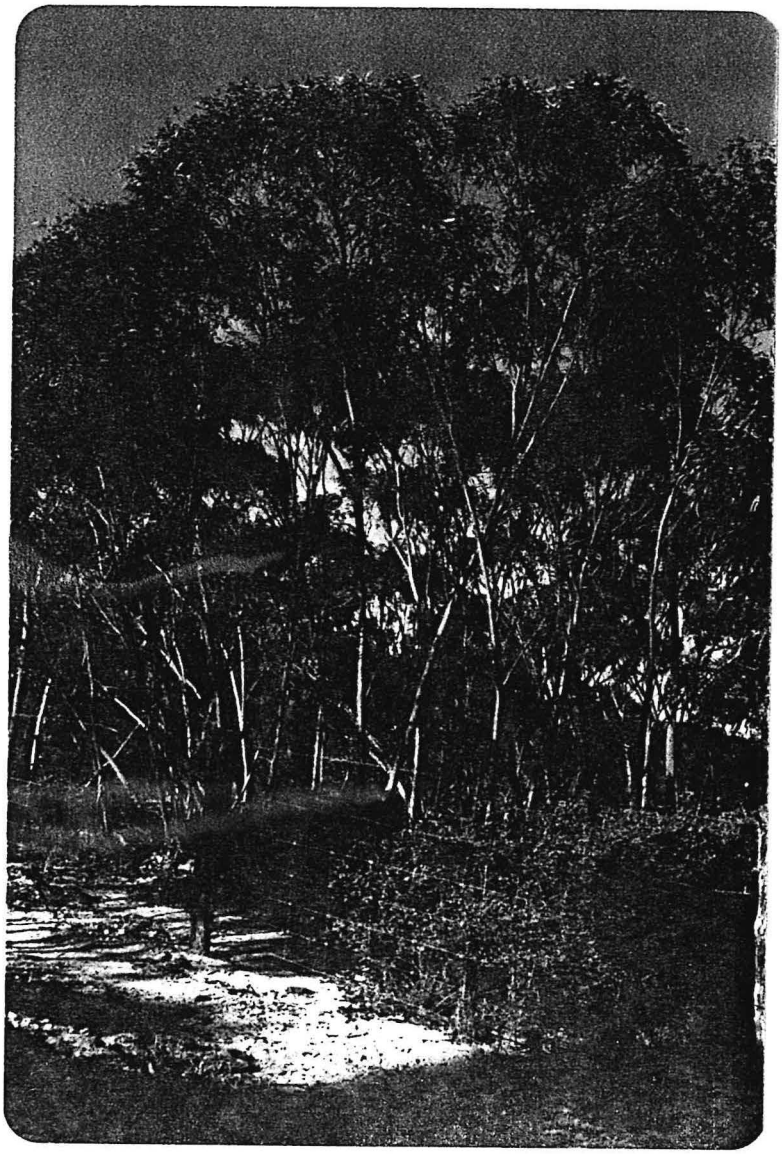


PHOTOGRAPH 3. Eucalyptus wandoo Woodland.

PHOTOGRAPH 4. Morrel (Eucalyptus longicornis) and Wandoo (Eucalyptus wandoo) Woodland. The wandoo becomes more frequent in this association towards the southern section of the reserve.



PHOTOGRAPH 5. Eucalyptus anceps mallee with Melaleuca undulata in the foreground.



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