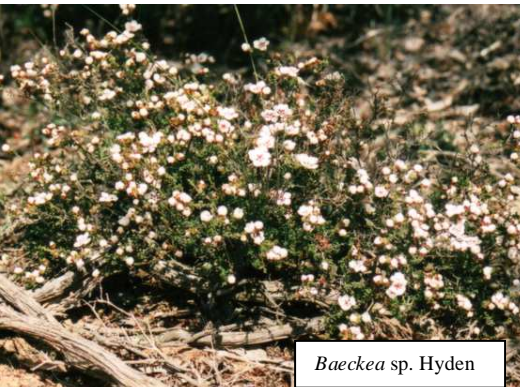


# Priority Flora Survey of the Tarin Rock Representative Landscape Area



Consultants Report  
For The Department of Conservation and Land Management  
By Anne (Coates) Rick  
2005

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### Priority flora survey of the Tarin Rock Representative Landscape Area

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## Acknowledgments

I extend my sincere thanks to Elsie Bishop, Nancye Perkins, Phyllis Dunham, Annie Slarke and Lynette Taylor from the Lakes District Rare Flora Volunteers for their valuable assistance in the field.



**Photograph 1.** Phyllis Dunham, Lyn Taylor and Nancye Perkins helping to count plants of *Rinzia affinis* in the Water Reserve.



**Photograph 2.** Annie Slarke, Lyn Taylor and Phyllis Dunham next to a plant of *Rulingia incilis* ms west of the Tarin Rock wheat bin. Leaves of this species were collected and sent to Dr Carol Wilkins for DNA sequence analysis.

# Introduction

## 1.1 Project Description

The aim of this project was to resurvey thirteen sites of priority flora occurring in the Tarin Rock Representative Landscape Area. The information provided with the original specimen collections or reports was insufficient in some cases for the exact location of the populations to be accurately mapped without further field work. Some of the priority species had not been re collected or surveyed at these sites for some time. Details provided by the Department of Conservation and Land Management (including Flora Base) are outlined in Table 1 and Figure 1.

### Details Required :

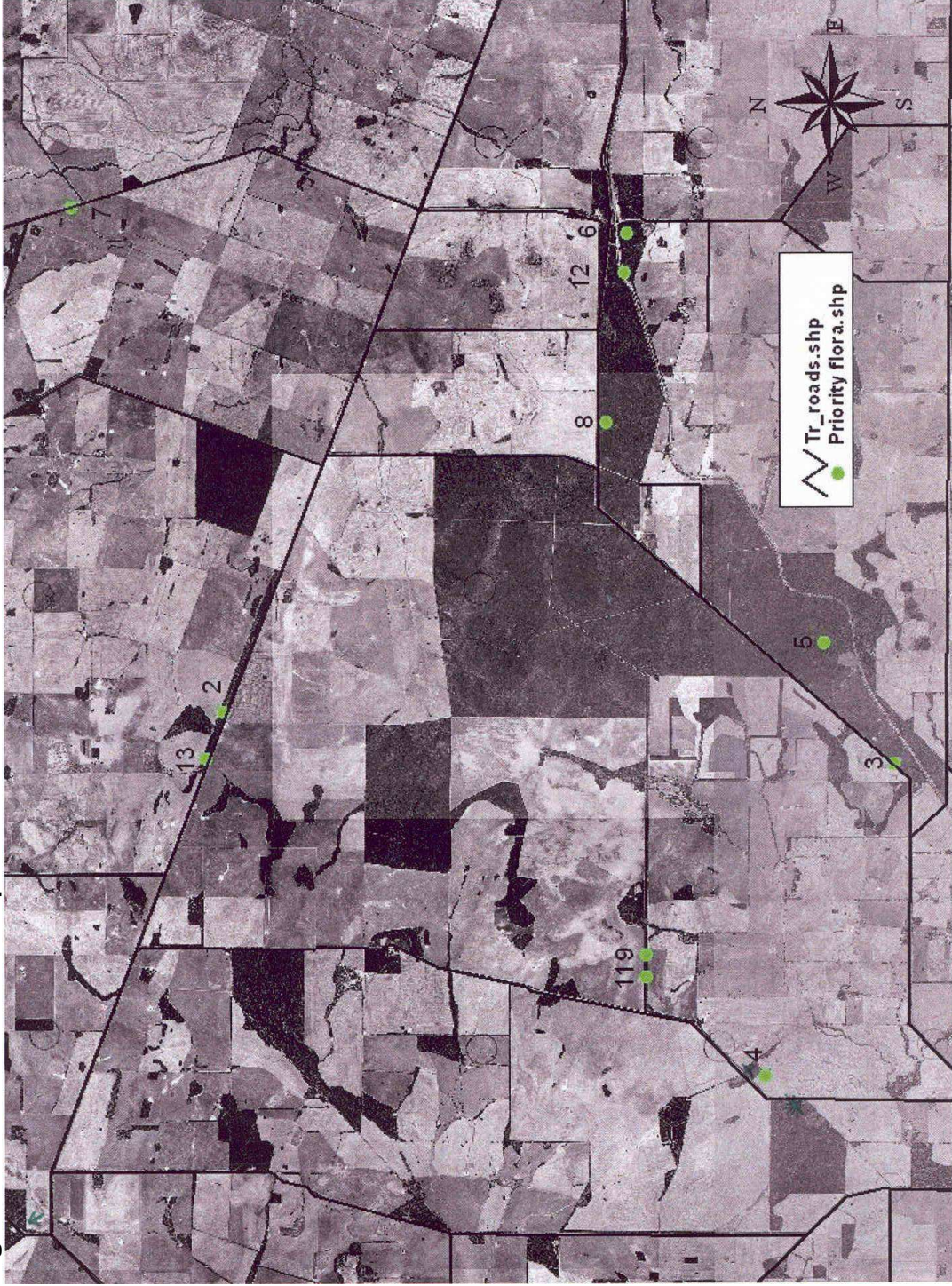
- Completed rare flora report form for each site.
- Precise location details (latitude and longitude in GDA94 - compatible)
- Two duplicate voucher specimens.
- Photographs of both the plant and site.

**Table 1 Priority Flora sites to be surveyed in the Tarin Rock Representative Landscape Area.**

Site No	Species	Status	Location Details
1	<i>Jacksonia debilis</i> Chappill ms	P1	Gravel reserve. Near Kulin Turnoff. Lake Grace to Harrismith Rd. Assoc. with <i>Banksia baueri</i> & <i>Dryandra pteridifolia</i> . Coarse sandy loam E.J. Croxford 5288, 21 October 1986
2	<i>Boronia ericifolia</i> Benth	P2	On Tarin Rock Rd, 4.25km WNW from junction with Hills Rd, N side of road in Shire of Dumbeyung, 3.5 km N of the N boundary of TRNR (25711). 1984 Not found on flora base
3	<i>Microcorys lenticularis</i> F.Muell.	P2	Tarin Rock Nature Reserve, 11.2 kms W of Tarin Rock J.W. Wrigley s.n. 9 November 1968
4	<i>Persoonia hakeiformis</i> Meisn	P2	6 km N of Kukerin (on Bladendale Rd?) Grey clayey sand. In shrubland R.J. Cranfield 4721, 24 October 1983

5	<i>Rinzia affinis</i> Trudgen	P2	Tarin Rock Water Reserve. Southern firebreak and MWA Railway Rd Sandy loam Assoc. <i>Allocasuarina</i> and <i>Hakea</i> . E.J. Croxford 6985, 7 August 1993
6	<i>Synaphea parviflora</i> A.S.George	P2	Tarin Rock Reserve, W of wheatbin on the S side of Dumbleyung-Lake Grace Rd Heathland with scattered emergent mallee eucalypts. Gravelly lateritic soil. M.G.M Corrick 10992, 2 October 1992
7	<i>Baeckea</i> sp. Hyden (J.M. Brown 141)	P3	1.1 km NE of Tarin Rock North Rd, Road reserve runs NE for 1.6 kms 900 ms S of junction with Holden Rd. 33 01' 40"S 118 14' 34"E S.A. McNee DY 547, 5 November 1994
8	<i>Boronia penicillata</i> Benth	P3	S verge of Dumbleyung-Lake Grace Rd; 0.85km SE of the junction with Hills Rd, adjoining TRNR. 1989
9 (11)	<i>Daviesia uncinata</i> Crisp	P3	8 km NNE of Kukerin on road reserve that runs east for 7.2 km from Bladendale Rd. ?to Dumbleyung – Lake Grace Rd 33°06' 56"; 118°07'35" S.A. McNee DY 734, 4 November 1992
10	<i>Dryandra fasciculata</i> A.S. George	P3	8 km N of Kukerin. In thick scrub in lateritic clay loam. A.S. George 9897, 1 July 1970
11 (9)	<i>Dryandra meganotia</i> A.S. George	P3	8 km NNE of Kukerin. Road reserve runs E for 7.2 kms from Bladendale Rd to?Dumbleyung - Lake Grace Rd 33°06' 56" 118°07' 35 " S.A. McNee DY 596, 4 November 1992
12	<i>Gyrostemon prostratus</i> A.S. George	P3	1km west of Tarin Rock siding along railway line. J.W. Wrigley WA/68 5093, 9 November 1968
13	<i>Gastrolobium densifolium</i> C.A. Gardner	P4	11 km NW of Tarin rock. On Tarin Rock Rd, 2km E of Pearce Rd and 3.1km E of Bladendale road reserve. 1989. Not found on flora base

Figure 1 Site Location Map



## 2.0 Method

The survey of the study area was carried out on the 12<sup>th</sup> October 2005 and the 24<sup>th</sup> October 2005 with the assistance of members of the Lakes District Rare Flora Volunteers. On the 12<sup>th</sup> October populations of *Rulingia incilis* ms. were also surveyed. Leaves of this species were collected and sent to Dr Carol Wilkins (University of Western Australia) for DNA sequence analysis for defining specific and generic boundaries of the Lasiopetaleae tribe (C. Wilkins pers. comm.). Plant specimens were also collected for the Lakes District Regional Herbarium. On the 26<sup>th</sup> October 2005 and 1<sup>st</sup> November 2005 survey work was carried out by the consultant.

Priority flora sites were photographed and described. Information recorded included soil type, topography, associated vegetation, characteristic species, exact location, GPS reading (datum, GPS map - WGS 84), health of the population and management issues. Plants were described, photographed and the number of plants counted.

Vegetation association descriptions were based on the classification system devised by Muir (1977) which was specifically designed for describing wheatbelt vegetation (see Table 1).

Voucher specimens of plant species encountered were collected and identified using keys and by comparison with specimens at the Western Australian Herbarium. Experts involved in revising particular genera were consulted wherever possible to ensure accuracy with identification.

Voucher specimens will be lodged at the WA Herbarium with duplicates at the Lakes District Regional Herbarium.

**TABLE 2 - MUIR SYSTEM OF VEGETATION CLASSIFICATION**

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



## 3.0 Results

### 3.1 Summary of Survey Results

- Populations at 8 of the priority flora sites were found and re surveyed.
- The record of *Boronia ericifolia* was thought to be misleading as this species occurs in the Moora-Wongan Hills area and no collections from the Tarin Rock area were found on flora base.
- The area where *Persoonia hakeformis* was previously collected has been burnt in Dec 2004. This site will need to be surveyed at a later date when plants are mature enough to be accurately identified.
- The population of *Synaphea parviflora* west of the Tarin Rock wheat bin was not found. The taxonomy of the genus *Synaphea* is still in some confusion and the status of *Synaphea parviflora* as a distinct species is uncertain (Ryonen Butcher pers. comm.).
- The population of *Gyrostemon prostratus* west of the Tarin Rock wheat bin was not re located. The last collection from this site was in 1968.
- *Gastrolobium densifolium* was not relocated at site 13 and a collection is not recorded from this site on flora base. The original collection has probably been re identified. A population of this species recorded from the southern section of the Water Reserve was re located and surveyed.
- Four new populations of priority flora are described in this report including:
  - Jacksonia debilis* (collected during the present survey),
  - Microcorys lenticularis* (collected by the Lakes District Rare Flora Volunteers 2002 and surveyed 2005),
  - Dryandra meganotia* (collected 2003 Kukerin Herbarium Project)
  - Baeckea sp* Hyden (collected by the Lakes District Rare Flora Volunteers 2004)
- Three new populations of *Dryandra fasciculata* were also found at sites 7, 8 and 13. Due to time limitations the survey of these populations could not be completed within the scope of the present project. Flowering specimens need to be collected in July – August, plant numbers counted and rare flora report forms completed.

**TABLE 3 Summary of Results of the Priority Flora survey of the Tarin Rock Representative Landscape Area**

Site No	Species	Status	Location Details	Results of 2005 survey
1	<i>Jacksonia debilis</i>	P1	Gravel reserve. Near Kulin Turnoff. Lake Grace to Harrismith Rd 1986 Assoc. with <i>Banksia baueri</i> & <i>Dryandra pteridifolia</i>	Population Found Voucher AC 5007
New 9/11	<i>Jacksonia debilis</i>	P1	8 km NNE of Kukerin on road reserve that runs east for 7.2 km from Bladendale Rd.	Voucher AC 5017
2	<i>Boronia ericifolia</i>	P2	On Tarin Rock Rd, 4.25km WNW from junction with Hills Rd, N side of road in Shire of Dumbeyung, 3.5 km N of the N boundary of TRNR (25711). 1984	This species occurs in the Moora-Wongan Hills area. Probably an incorrect record.
3	<i>Microcorys lenticularis</i>	P2	Tarin Rock Nature Reserve, 11.2 W of Tarin Rock	Population found Voucher AC 5018
New 2002	<i>Microcorys lenticularis</i>	P2	Tarin Rock Nature Reserve NS firebreak	Voucher EB 169
4	<i>Persoonia hakeiformis</i>	P2	6 km N of Kukerin (on Bladendale Rd?) 1983	Area burnt Dec 2004. resurvey at a later date
5	<i>Rinzia affinis</i>	P2	Tarin Rock Water Reserve. Southern firebreak and MWA Railway Rd 1993	Area on map provided burnt Dec 2004. Resurvey at a later date.
5	<i>Rinzia affinis</i>	P2	Tarin Rock Water Reserve. Southern firebreak and MWA Railway Rd 1993	Voucher AC 4991
6	<i>Synaphea parviflora</i>	P2	Tarin Rock (Townsite?) Reserve, W of wheatbin on the S side of Dumbleyung-Lake Grace Rd 1992	Not found Confusion in the current taxonomy
7	<i>Baeckea</i> sp. Hyden (JM Brown)	P3	Tarin Rock North Rd, 900 ms S of Holden Rd. 33 01' 40"S 118 14' 34"E 1996	Population found. Voucher AC 5006

New Pop 2004	<i>Baeckea sp.</i> Hyden (JM Brown)	P3	North Tarin Rock NR. Northern boundary	Voucher AC 4921
8	<i>Boronia penicillata</i>	P3	S verge of Dumbleyung-Lake Grace Rd; 0.85km SE of the junction with Hills Rd, adjoining TRNR. 1989	Population found Voucher AC 5031
9 (11)	<i>Daviesia uncinata</i>	P3	8 km NNE of Kukerin on road reserve that runs east for 7.2 km from Bladendale Rd. 1992. 33 06' 56"; 11 07'35"	Population found. Voucher AC 5015 – no flowers Voucher AC 5044 – flowering
10	<i>Dryandra fasciculata</i>	P3	8 km N of Kukerin 1970. In thick scrub in lateritic clay on loam.	Population found Voucher AC 5016
7,8, 13	<i>Dryandra fasciculata</i>	P3	New populations	Vouchers to be confirmed when flowering material is available
11	<i>Dryandra meganotia</i>	P3	8 km NNE of Kukerin. E of Bladendale Rd. 7.2km to Dumbleyung-Lake Grace Rd. ? year	Population found Voucher AC 5042
New	<i>Dryandra meganotia</i>	P3	Williams Location 15205	Voucher JG 30
12	<i>Gyrostemon prostratus</i>	P3	1km west of Tarin Rock siding along railway line. 1968	Not found
13	<i>Gastrolobium densifolium</i>	P4	11 km NW of Tarin rock. On Tarin Rock Rd, 2km E of Pearce Rd and 3.1km E of Bladendale road reserve. 1989	Population not found. Original collection reidentified?
Pop relocated	<i>Gastrolobium densifolium</i>	P4	Water Reserve near railway line. Croxford 1986	Voucher AC 5028

## 3.2 Priority Flora Site Descriptions

### Site 1      *Jacksonia debilis* Chappill ms

**Location:** 4.7 kms West of Hills Rd along the Tarin Rock Rd. Road Reserve on the North side of the road. ~75ms wide.

**Lat** 33°03' 07.7"      **Long** 118°08' 33.3"

**Soils and Topography:** Deep loamy sand over laterite. Gently sloping terrain.

**Associated vegetation:** Dwarf Scrub C over Low Heath D (scattered shrubs over 2 ms)

**Characteristic species:** *Hakea obliqua*, *Petrophile ericifolia*, *Dryandra pteridifolia*, *Banksia baueri*, *Eremaea pauciflora*, *Anigozanthos humilis*, *Andersonia* sp, *Dryandra nivea*, *Banksia violacea*, *Allocasuarina microstachya*, *Caustis dioica*, *Verticordia ovalifolia*, *Verticordia ?insignis*, *Lachnostachys verbascifolia*, *Conostylis* sp, *Dampiera ?linearis*, *Boronia ramosa* ssp *anethifolia*

**Number of Plants:** 3 plants. 1 in flower

**Voucher:** AC 5007

**Health of population:** Healthy population. The Road Reserve is ~75 ms wide and is generally in good condition.

**Comments:** This locality is 3kms east of the Kulin turnoff (Pearce Rd). It is the only site with the described associated species *Banksia baueri* and *Dryandra pteridifolia* along the Tarin Rock road in this general area.



**Photograph 3** *Jacksonia debilis* at site 1.



**Photograph 4** Shrubland on sandy soils at Site 1 (*Jacksonia debilis* site)

## Site 2      *Boronia ericifolia* Benth

The record of *Boronia ericifolia* was thought to be misleading as this species occurs in the Moora-Wongan Hills area and no collections from the Tarin Rock area were found on flora base. The original collection has probably been re identified.

## Site 3      *Microcorys lenticularis* F. Muell

**Location:** 6 kms west of Hills Rd on the Dumbleyung-Lake Grace Road. Plants occurred on both sides of the road on verges for 750 ms and a disturbed area south of the road.

### Road Verges

**Lat** 33°08' 50.1"      **Long** 118°08' 30.9"

**Soils and Topography:** Sandy soils over laterite at depth.

**Associated vegetation:** Dwarf Scrub C over Open Dwarf Scrub D

**Characteristic species:** *Hakea corymbosa*, *Eremaea pauciflora*, *Verticordia ovalifolia*, *Lambertia inermis*, *Caustis dioica*, *Pityrodia terminalis*, *Comespermum sp*, *Acacia sp*

Adjacent vegetation: Open Scrub over Low Heath C over Dwarf Scrub D (scattered shrub mallee).

*Eucalyptus albida*, *Banksia attenuata*, *Lambertia inermis*, *Hakea corymbosa*, *Allocasuarina humilis*, *Hakea brownii*, *Dryandra ?purdiana*, *Leptospermum spinescens*, *Eremaea pauciflora* (frequent) *Banksia baueri*, *Adenanthos ?cygnorum*, *Petrophile ericifolia*, *Kunzea sp*, *Petrophile longifolia*, *Melaleuca pungens*, *Andersonia sp*, *Calytrix leschenaultii*, *Gastrolobium bennettsianum*, *Dampiera sp*, *Baeckea sp*, *Leucopogon sp*, *Desmocladius sp*

**Number of Plants:** 108 on verge.

**Voucher:** AC 5018.

**Health of population:** Population healthy.

**Comments :** The road verge has been previously slashed. Future slashing of the verge, if too frequent, may endanger the population. Rare flora markers in the area need to be extended



**Photograph 5** *Microcorys lenticularis* on the road verge of the Lake Grace – Dumbleyung Road.



**Photograph 6** Roadside verge at site 3.

## Disturbed Area South of the Road

**Location:** Area south of the road. The vegetation was regenerating on an old track and sand pit.

**Lat** 33°09' 05.5"      **Long** 118°08' 23.1"

**Soils and Topography:** Deep sandy soils, laterite at depth on gently sloping terrain.

**Associated vegetation:** Open Scrub over Dwarf Scrub C over Dwarf Scrub D

**Characteristic species:** *Kunzea* sp, *Leptospermum* ?*nitens*, *Eremaea pauciflora* (frequent), *Banksia baueri*, *Lambertia inermis*, *Daviesia* sp, *Caustis dioica*, *Adenanthos cygnorum*, *Verticordia ovalifolia*, *Dryandra nivea*, *Comespermum* ?*distichum*, *Comespermum brownii*, *Petrophile ericifolia*, *Calytrix leschenaultii*, *Verticordia chrysantha*, *Petrophile longifolia*, *Urodon dasyphyllus*, *Lechenaultia tubiflora*, *Andersonia* sp, *Verticordia* ?*insignis*

**Number of Plants:** 62 plants

**Voucher:** AC 5018

**Health of population:** Healthy population with good regeneration of associated species.



**Photograph 7** *Microcorys lenticularis* south of the road at site 3.



#### **Site 4      *Persoonia hakeiformis* Meisn**

The general area was burnt in December 2004. The site will need to be surveyed at a later date when plants are mature enough to be accurately identified. Good regeneration was observed after winter and spring rains.

**Location:** Bladendale Rd, 3.7kms North of the Dumbleyung-Lake Grace Rd.

**Lat** 33°07' 46.7"      **Long** 118°05' 04.1"

**Soils and Topography:** Gravelly soils over ironstone. Top of hill and slope.

**Associated vegetation:** Seedlings. Area burnt - regeneration good.

**Characteristic species:** Mallet trees, shrub mallee and *Dryandra* shrubs - burnt stays. Species collected include *Actinotus* sp AC4994, *Astridia* sp AC 4995 and other Asteraceae.

**Comments:** Only two areas of remnant vegetation occur in the area specified ie 6 km N of Kukerin (on Bladendale Rd?). Specimens of *Persoonia hakeiformis* listed on flora base have been collected from heath areas with laterite soils. The above locality is therefore the most likely location for site 4. Morrel (*Eucalyptus Ionicornis*) and salmon gum (*Eucalyptus salmonophloia*) woodlands on loamy soils occur in the second area of remnant vegetation occurring in the general area



**Photograph 8**      Site 4 burnt in December 2004.

## General area of Site 5

## *Rinzia affinis* Trudgen

### The area marked on the map (Figure 1)

This area was burnt in the December 2004 fire. *Rinzia affinis* is probably more common in the study area than before realised. One population is described below in the general area of site 5 and a new population is described at site 8. Surveying for more populations was beyond the scope of the present study. 12 specimens listed on flora base occur in the Tarin Rock survey area. These include the collections

E.J. Croxford 3538 and 3530, 15 October 1984 Tarin Rock Water Reserve, against railway Road and

E.J. Croxford 5222, 16 October 1986 Tarin Rock Water Reserve, beside railway line.

*Rinzia affinis* has also been collected by the Lakes District Rare Flora Volunteers at 2 other sites in the study area including:

E. Bishop 130, 14 October 2002 - Tarin Rock railway line, 1 km W of wheat bin. Population previously recorded and

E. Bishop 137, 14 October 2002. Tarin Rock Nature Reserve. Near Tower (Air Navigation Facility), 3.7 km W of Hills Rd.



**Photograph 9** Area marked as site 5 on figure 1.

***Rinzia affinis* population in the general area of Site 5**

**Location:** 250ms west of the eastern boundary of Duggan Water Reserve along the track running on the south side of the railway line.

**Lat** 33°08' 03.0"      **Long** 118°10' 19.5"

**Soils and Topography:** Sandy soils over laterite. Flat terrain.

**Associated vegetation:** Open Shrub Mallee over Open Scrub over Low Heath D

**Characteristic species:** *Eucalyptus uncinata*, *Eucalyptus falcata*, *Leptospermum* sp, *Hakea pandanocarpa* ssp *crassifolia*, *Grevillea cagiana*, *Leptospermum spinescens*, *Dryandra vestita*, *Melaleuca ?societatis*, *Kunzea* sp, *Beaufortia micrantha*, *Baeckea* sp, *Dampiera juncea*, *Caustis dioica*, *Hibbertia* sp, *Verticordia acerosa* ssp *preissii*, *Calytrix leschenaultii*, *Comesperma scoparium*, *Desmocladius* sp , *Neurachne alopecuroidea*.

**Number of Plants:** 31 plants in flower.

**Voucher:** AC 4991

**Comments:** Track maintenance may endanger plants close to the track.



**Photograph 10** *Rinzia affinis* in the general area of site 5.



**Photograph 11** *Rinzia affinis* and associated vegetation at site 5.

### **Site 6      *Synaphea parviflora* A.S. George**

The population of *Synaphea parviflora* west of the Tarin Rock wheat bin was not found. The taxonomy of the genus *Synaphea* is still in some confusion and the status of *Synaphea parviflora* as a distinct species is uncertain (Ryonen Butcher pers. comm.). Ryonen Butcher has also searched the area west of the Tarin Rock wheat bin and has failed to collect *Synaphea parvifolia*. The only *Synaphea* collected at the location marked on figure 1 has been identified by Ryonen as *Synaphea cervifolia* AC 4973. West of Wheatbin may mean some kms west and futher survey work and taxonomic revision are needed to clarify the situation.

**Site 7      *Baeckea sp.* Hyden (J.M. Brown 141)**

**Location:** 1.2 kms east of Tarin Rock North Road beside a track which runs east off the Tarin Rock North Road 900ms south of Holden Rd. Plants occurred in a narrow strip of remnant vegetation on both sides of the track. The population extends for ~250 ms.

**Lat** 33°01' 36.7"      **Long** 118°14' 36.2"

**Soils and Topography:** Sandy loam soils with gravel over ironstone. Gently sloping terrain.

**Associated vegetation:** Very Open Shrub Mallee over Open Scrub over Low Scrub B over Dwarf Scrub C over Open Dwarf Scrub D (Muir 1977)

**Characteristic species:** *Eucalyptus albida*, *Allocasuarina ?spinosissima*, *Callitris roei*, *Allocasuarina acutivalvis*, *Pittosporum angustifolium*, *Hakea multilineata*, *Dryandra purdiana* (frequent), *Isopogon teretifolius*, *Gastrolobium spinosum*, *Grevillea hookeriana*, *Leptospermum spinosum*, *Beaufortia micrantha*, *Persoonia ?coriacea*, *Dryandra ferruginea*, *Baeckea sp.*, *Dryandra fasciculata*, *Calytrix leschenaultii*, *Verticordia picta*, *Hibbertia sp*

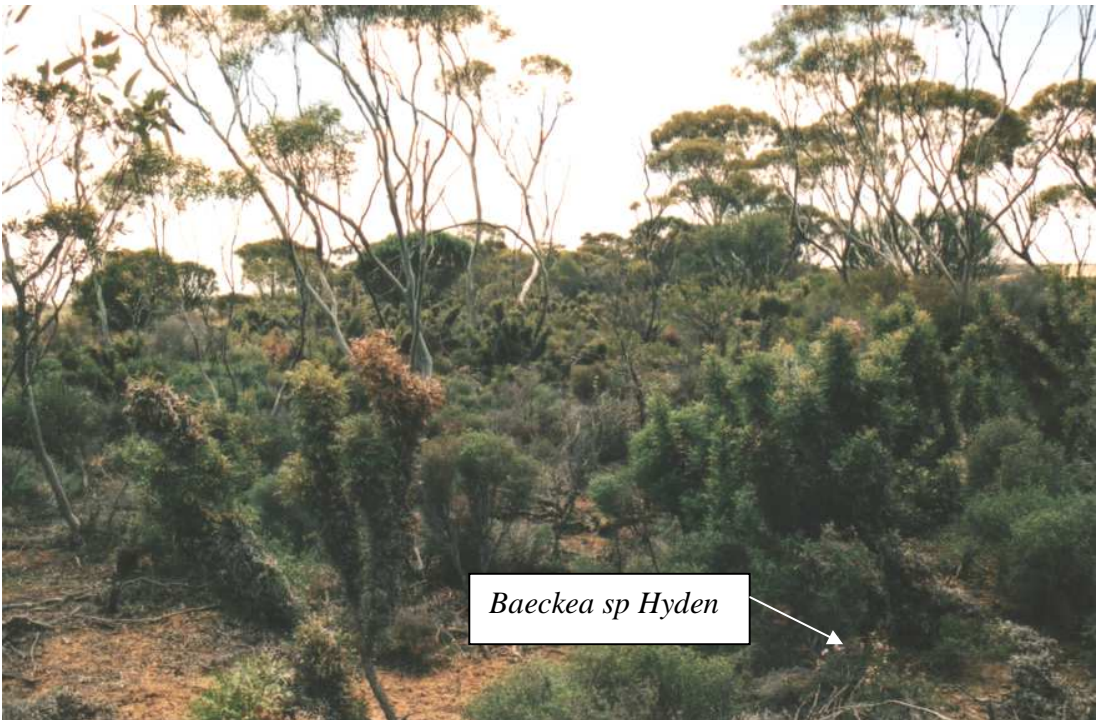
**Number of Plants:** 73 plants in flower – just finishing.

**Voucher:** AC 5006

**Comments:** The *Baeckea* population is healthy however the strip of vegetation on the sides of the track is narrow especially on the northern side and some weed invasion has occurred. *Dryandra fasciculata* was also recorded at this site.



**Photograph 12** *Baeckea sp Hyden* (J.M.Brown) at site 7



**Photograph 13** *Baeckea sp Hyden* (J.M.Brown 141) and associated vegetation at site 7.

## Site 8 *Boronia penicillata* Benth

**Location:** Adjacent to the Lake Grace – Dumbleyung Rd. 850 ms East of Hills Rd. both sides of road. Population extends for 550ms. Tarin Rock Nature Reserve.

**Lat** 33°06' 25.9"      **Long** 118°11' 58.0"

**Soils and Topography:** Sandy loam with gravel over ironstone. Gentle slope.

**Associated vegetation:** Open Scrub over Low Heath C over Dwarf Scrub D (scattered shrub mallee)

**Road side verge:** Open Dwarf Scrub C over Low Heath D – Area previously slashed. *Dampiera* sp, *Lachnostachys ?bracteosa* prominent

**Characteristic species:** *Eucalyptus albida*, *Grevillea cagiana*, *Hakea pandanocarpa* ssp *crassifolia*, *Hakea ?cygna*, *Banksia baueri*, *Hakea brownii*, *Allocasuarina pinaster*, *Beaufortia incana*, *Isopogon gardneri*, *Isopogon teretifolius*, *Allocasuarina humilis*, *Dryandra ferruginea*, *Caustis dioica*, *Lachnostachys ?bracteosa*, *Petrophile phyllicoides*, *Banksia sphaerocarpa*, *Dryandra erthrocephala*, *Dryandra vestita*, *Dampiera juncea*, *Xanthorrea nana*, *Beaufortia micrantha*, *Hibbertia ?pungens*, *Chloanthes coccinea*, *Verticordia picta*, *Daviesia uniflora*, *Verticordia roei*, *Verticordia chrysantha*, *Lechenaultia biloba*, *Boronia capitata*, *Jacksonia* sp, *Synaphea* sp

**Number of Plants:** 195 plants on both sides of the road on the verge and mainly in the disturbed areas adjacent south eg old fire break / track

**Voucher:** AC 5030

**Comments:** The population is healthy. Part of the road verge has rare flora markers due to the presence of *Dryandra foliosissima*. *Daviesia tortuosa* AC 5052, *Dryandra fasciculata* AC 5033 an *Rinzia affinis* AC 5030 were also collected from this site. Frequent slashing of the road verge may endanger this population.



**Photograph 14** *Boronia penicillata* at site 8.



**Photograph 15** Road verge with *Boronia penicillata*, *Rinzia affinis* and *Daviesia tortuosa* at site 8





**Photograph 16** Site 8. Vegetation adjacent to the road verge.

### **Site 9 (site 11) *Daviesia uncinata* Crisp**

**Location:** Unmade road running east to Tarin Rock Nature Reserve from Bladendale Rd. 7.95 kms south of Tarin Rock Rd. Same as site 11.

**Lat** 33° 06' 52.8"      **Long** 118° 05' 49.6"

**Soils and Topography:** Sandy soil over laterite. Gently sloping terrain.

**Associated vegetation:** Low Scrub B (Low Heath B in places) over Dwarf Scrub C over Dwarf Scrub D

**Characteristic species:** *Eremaea pauciflora* (frequent), *Hakea brownii*, *Dryandra pteridifolia*, *Hakea corymbosa*, *Leptospermum erubescens*, *Banksia baueri*, *Hakea obliqua*, *Lambertia ilicifolia*, *Petrophile ericifolia* (frequent), *Allocasuarina humilis*, *Dryandra nivea*, *Dryandra fasciculata*, *Leptospermum spinescens*, *Isopogon teretifolius*, *Petrophile longifolia*, *Banksia violacea*, *Beaufortia micrantha*, *Persoonia* sp, *Dampiera juncea*, *Hibbertia* sp, *Anigozanthos humilis*, *Verticordia ?insignis*, *Baeckea crispiflora*, *Petrophile brevifolia*, *Lepidobolus ?chaetocephalus*. *Desmocladius* sp, *Grevillea hookeriana*

**Number of Plants:** 7 mature plants, 1 dead.

**Voucher:** AC 5015, AC 5044 (Flowering specimen collected on 7<sup>th</sup> December 2005)

**Health of population:** The population of *Daviesia uncinata* and the surrounding vegetation is generally in good health. However rabbits are common and burrowing has caused the death of some plants in the area. The unmade road reserve is narrow ~50 ms and weed invasion has occurred at the edges. Kangaroos are also causing some damage. This population was revisited on the 7<sup>th</sup> December 2005 and a flowering specimen collected.



**Photograph 17** *Daviesia uncinata* in flower at site 9. The photograph was taken on the 7 December 2005.

**Site 10     *Dryandra fasciculata* A.S. George**

**Location:** Unmade road. Running east to Tarin Rock Nature Reserve from Bladendale Rd. Starting 7.95 kms South of Tarin Rock Rd. ~ 50 ms wide.

**Lat** 33° 06' 52.9"     **Long** 118° 05' 48.4"

**Soils and Topography:** Sandy soil over laterite. Gently sloping terrain.

**Associated vegetation:** Low Scrub B over Dwarf Scrub C over Dwarf Scrub D

**Characteristic species:** *Eremaea pauciflora*, *Hakea brownii*, *Dryandra pteridifolia*, *Hakea corymbosa*, *Banksia baueri*, *Hakea obliqua*, *Lambertia ilicifolia*, *Petrophile ericifolia* *Allocasuarina humilis*, *Dryandra nivea*, *Dryandra fasciculata*, *Leptospermum spinescens*, *Isopogon teretifolius*, *Petrophile longifolia*, *Banksia violacea*, *Beaufortia micrantha*, *Persoonia* sp, *Dampiera juncea*, *Hibbertia* sp, *Anigozanthos humilis*, *Verticordia ?insignis*, *Baeckea crispiflora*, *Petrophile brevifolia*, *Lepidobolus ?chaetocephala*. *Desmocladius* sp, *Grevillea hookeriana*

**Number of Plants:** Scattered throughout the association. Over 100 plants estimated.

**Voucher:** AC 5016

**Comments:** The population of *Dryandra faciculata* and the surrounding vegetation is generally in good health. Management issues such as rabbits are also relevant at site 10. This species is more widely spread than *Daviesia uncinata* and *Dryandra meganotia* (site 9/11) which are confined to the deeper sandy soils adjacent to Bladendale road. *Dryandra fasciculata* is found at site 9/11 and also further east in the more shallow sandy soils over laterite (site 10).



**Photograph 18** *Dryandra fasciculata* at site 10.



**Photograph 19** *Dryandra fasciculata* at Site 10.

**Site 11     *Dryandra meganotia* A.S. George**

**Location:** Unmade road. Running east to Tarin Rock Nature Reserve from Bladendale Road, 7.95 kms south of Tarin Rock road and on the Bladendale road verge to the south. Same as site 9.

**Lat** 33° 06' 53.1"                      **Long** 118° 05' 45.2"

**Soils and Topography:** Sandy soil over laterite. Gently sloping terrain.

**Associated vegetation:** Low Scrub B (Low Heath B in places) over Dwarf Scrub C over Dwarf Scrub D

**Characteristic species:** *Eremaea pauciflora* (frequent), *Hakea brownii*, *Dryandra pteridifolia*, *Hakea corymbosa*, *Leptospermum erubescens*, *Banksia baueri*, *Hakea obliqua*, *Lambertia ilicifolia*, *Petrophile ericifolia* (frequent), *Allocasuarina humilis*, *Dryandra nivea*, *Dryandra fasciculata*, *Leptospermum spinescens*, *Isopogon teretifolius*, *Petrophile longifolia*, *Banksia violacea*, *Beaufortia micrantha*, *Persoonia* sp, *Dampiera juncea*, *Hibbertia* sp, *Anigozanthos humilis*, *Verticordia ?insignis*, *Baekkea crispiflora*, *Petrophile brevifolia*, *Lepidobolus ?chaetocephalus*. *Desmocladius* sp, *Grevillea hookeriana*

**Number of Plants:** 52 plants counted.

**Voucher:** AC 5042

**Comments:** The population of *Dryandra meganotia* and the surrounding vegetation is generally in good health. This site is the same as site 9. Rabbits are common and burrowing has caused the death of some plants in the area. The unmade road reserve is narrow ~50 ms and weed invasion has occurred at the edges. Kangaroos are also causing some damage.



**Photograph 20** *Dryandra meganotia* at site 11.



**Photograph 21** *Dryandra meganotia* and associated vegetation at site 11

## Site 12 *Gyrostemon prostratus* A.S.George

The Lakes District Rare Flora Volunteers have collected *Gyrostemon prostratus* (Sam Walsh collection SW 52) previously on the Walsh property near Dunn Rock Nature Reserve. Both sides of the railway line were searched on 12 October 2005 and the consultant revisited the area on the 1 November 2005. However no plants were found. This species was last collected at this site in 1968.

## Site 13 *Gastrolobium densifolium* C.A.Gardner

**Comments** *Gastrolobium densifolium* was not relocated at site 13 and a collection is not recorded from this site on flora base. The original collection has probably been re identified. A population of this species located in the southern section of the Water Reserve was re located and surveyed. The details of the original collect are as follows

E.J.Croxford 5188, 23 October 1986. Sandy loam soil, in association with *Eucalyptus* sp and *Calytrix* sp. Near railway line, Duggan Water Reserve.

**Location** Duggan Water Reserve, 200ms west of the track crossing the railway line on the southern side of the line. Plants occur between the railway line and the track on the south side of the line and on the southern side of the track.

**Lat** 33°08' 46.1" **Long** 118°09' 15.2"

**Soils and Topography:** Sandy loam and gravel. Gentle slope

**Associated vegetation:** Between the railway line and the track – Scrub A over Low Heath D. South of the track – Scrub A over Dwarf Scrub C over Low Heath D.

**Characteristic species:** *Melaleuca "uncinata"*, *Allocasuarina campestris*, *Leptospermum erubescens*, *Grevillea hookeriana*, *Hakea lissocarpha*, *Hakea scoparia*, *Melaleuca ?carrii*, *Pimelea angustifolia*, *Dodonaea ?caespitosa*, *Philotheca rhomboidea*, *Phebalium filifolium*, *Allocasuarina microstachya*, *Hakea incrassata*, *Hibbertia ?pungens*, *Neurachne alopecuroidea*, *Comesperma scoparium*, *Dampiera juncea*, *Baeckea crispiflora*, *Verticordia chrysantha*, *Verticordia picta*, *Waitzia acuminata*, *Calytrix*, *Ieschenaultii*, *Stylidium luteum*, *Borya* sp,

**Number of Plants:** 157 plants counted. Plants in flower.

**Voucher:** AC 5028

**Comments** The population is healthy. Track and railway maintenance may threaten the population in the future.



**Photograph 22** *Gastrolobium densifolium* in Duggan Water reserve.



**Photograph 23** *Gastrolobium densifolium* on the south side of the track.



### 3.3 New Populations

#### New Population Site 9/11 *Jacksonia debilis* Chappill ms

**Location:** Unmade road. Running east to Tarin Rock Nature Reserve from Bladendale Rd. 7.95 kms South of Tarin Rock Rd. At site 9 /11.

**Lat** 33° 06' 52.9" **Long** 118° 05' 48.4"

**Soils and Topography:** Sandy soils over laterite. Gently sloping terrain.

**Associated vegetation:** Low Scrub B (Low Heath B in places) over Dwarf Scrub C over Dwarf Scrub D

**Characteristic species:** *Eremaea pauciflora* (frequent), *Hakea brownii*, *Dryandra pteridifolia*, *Hakea corymbosa*, *Leptospermum erubescens*, *Banksia baueri*, *Hakea obliqua*, *Lambertia ilicifolia*, *Petrophile ericifolia* (frequent), *Allocasuarina humilis*, *Dryandra nivea*, *Dryandra fasciculata*, *Leptospermum spinescens*, *Isopogon teretifolia*, *Petrophile longifolia*, *Banksia violacea*, *Beaufortia micrantha*, *Persoonia* sp, *Dampiera juncea*, *Hibbertia* sp, *Anigozanthos humilis*, *Verticordia ?insignis*, *Baeckea crispiflora*, *Petrophile brevifolia*, *Lepidobolus ?chaetocephalus*. *Desmocladius* sp, *Grevillea hookeriana*

**Number of Plants:** Three plants in flower

**Voucher:** AC 5017

**Health of population:** The population of *Jacksonia debilis* and the surrounding vegetation is generally in good health. However rabbits are common and burrowing has caused the death of some plants in the area. The unmade road reserve is narrow ~50 ms and weed invasion has occurred at the edges. Kangaroos are also causing some damage. See *Daviesia uncinata* site 9, page 26.



**Photograph 24** *Jacksonia debilis* at site 9 growing with *Daviesia uncinata* and *Dryandra meganotia*.



**Photograph 25** Site 9 the location of a new population of *Jacksonia debilis*.

## **New Population 2002**

## ***Microcorys lenticularis* F Muell**

**Location:** Tarin Rock Nature Reserve, Adjacent to North - South fire break.  
1.1 kms from the Northern boundary

**Lat** 33°05' 37"

**Long** 118° 10' 49"

**Soils and Topography:** Deep sandy soils over laterite. Gentle slope.

**Associated vegetation:** Low Scrub B over Low Heath C (scattered Shrub Mallee)

**Characteristic species:** *Eucalyptus albida*, *Banksia baueri*, *Eremaea pauciflora*, *Lambertia ilicifolia*, *Leptospermum erubescens*, *Dryandra nivea*, *Callitris* sp, *Dampiera wellsiana*, *Conostylis petrophiloides*, *Pityrodia bartlingii*, *Dampiera linearis*, *Billardiera* sp, *Calectasia pignattiana* DRF, *Pultenaea verruculosa* var *brachyphylla*, *Lachnostachys albicans*,

**Number of Plants:** Counted 2005, 20 plants

**Voucher:** Elsie Bishop EB 169, collected 14 October 2002

**Comments:** Fire break maintenance may endanger plants close to the edge of the track including *Calectasia pignattiana* DRF which was also collected from this site, Elsie Bishop collection EB 167.



**Photograph 26** *Microcorys lenticularis* in the Tarin Rock Nature Reserve.



**Photograph 27** Close up of *Microcorys lenticularis*.



**Photograph 28** Site of the new population of *Microcorys lenticularis* in the Tarin Rock Nature Reserve.

## **New Population at site 8    *Rinzia affinis* Trudgen**

**Location:** Adjacent to the Lake Grace – Dumblebung Rd. 850 ms East of Hills Rd. both sides of road

**Lat** 33°06' 25.9"      **Long** 118°11' 58.0"

**Soils and Topography:** Sandy loam with gravel over ironstone. Gentle slope

**Associated vegetation:** Open Scrub over Low heath C over Dwarf Scrub D (scattered shrub mallee)

**Characteristic species:** *Eucalyptus albida*, *Grevillea cagiana*, *Hakea pandanocarpa* ssp *crassifolia*, *Hakea*?*cygna*, *Banksia baueri*, *Hakea brownii*, *Allocasuarina pinaster*, *Beaufortia incana*, *Isopogon gardneri*, *Isopogon teretifolius*, *Allocasuarina humilis*, *Dryandra ferruginea*, *Caustis dioica*, *Lachnostachys* ?*bracteosa*, *Petrophile phyllicoides*, *Banksia sphaerocarpa*, *Dryandra erthrocephala*, *Dryandra vestita*, *Dampiera juncea*, *Xanthorrea nana*, *Beaufortia micrantha*, *Hibbertia* ?*pungens*, *Chloanthes coccinea*, *Verticordia picta*, *Daviesia uniflora*, *Verticordia roei*, *Verticordia chrysantha*, *Lechenaultia biloba*, *Boronia capitata*, *Jacksonia* sp, *Synaphea* sp

**Number of Plants:** 47 plants

**Voucher:** AC 5030

**Comments:** This is the same site as *Boronia penicillata* – Site 8. The population is healthy. Part of the road verge has rare flora markers due to the presence of *Dryandra foliosissima*. *Daviesia tortuosa* AC 5052 and *Dryandra fasciculata* AC 5033 were also collected from this site. Frequent slashing/ grading of the road verge may endanger this population.



**Photograph 29** *Rinzia affinis* at site 8

**New population**      ***Dryandra meganotia* A.S. George**

**Location:** Area of remnant vegetation situated approximately 5 kms south east of Kukerin (Williams Location 15205) south of Siberia Road. Survey site 2 and Quadrat 2 near the western boundary.

**Lat** 33° 12' 31"      **Long** 118° 07' 51"

**Soils and Topography:** Deep sandy soils with sub-surface laterite on gently sloping terrain.

**Associated vegetation:** Open Low Scrub B over Low Heath C over Dwarf Scrub D (scattered shrub mallee)

**Characteristic species:** *Eucalyptus incrassata*, *Hakea pandanicarpa* ssp *crassifolia*, *Eremaea pauciflora*, *Dryandra fasciculata*, *Leptospermum erubescens*, *Daviesia uniflora*, *Isopogon teretifolius*, *Verticordia roei*, *V. chrysantha*, *V. picta*, *Xanthorrhoea nana*, *Dryandra erythrocephala*, *Persoonia striata*, *Hakea incrassata*, *Allocasuarina microstachya*, *Kunzea micromera*, *Caustis dioica*, *Lepidosperma* sps, *Lepidobolus chaetocephalus*, *Hibbertia ?gracilipes*, *Leucopogon* sps, *Rinzia communis*, *Calytrix leschenaultii*, *Petrophile brevifolia*, *Verticordia acerosa* var. *preissii*, *Baeckea preissiana*, *Hakea lissocarpha*, *Desmocladius quiricanus*, *Verticordia acerosa* var. *preissii*

**Voucher:** Jan Grey collection JG 30

**Date of Survey** 18 October 2002

**Comments:** This area was surveyed in 2002 and 2003 as part of a project for the Dumbleyung Landcare Zone Committee to establish the Kukerin Regional Herbarium.



**Photograph 30** The site of the collection of *Dryandra meganotia* on Williams Location 15205 (Site 2 and Quadrat 2 of the consultants report)

**New population North Tarin Rock Nature Reserve  
Baeckea sp Hyden (J.M. Brown 141)**

**Location:** North Tarin Rock Nature Reserve No 29857 Northern Boundary

**Lat** 32°58' 30.3"      **Long** 118°14' 26.5"

**Soils and Topography:** Sandy loam with some gravel. Gently sloping terrain.

**Associated vegetation:** Open Scrub over Open Low Scrub B over Dwarf Scrub D (Muir 1977). Vegetation regenerating on edge of track.

**Characteristic species:** *Melaleuca pungens*, *Xanthorrea nana*, *Banksia violacea*, *Gastrolobium spinosum*, *Dampiera juncea*, *Caustis dioica*, *Mesomelaena sp*, *Pityrodia terminalis*, *Dryandra ?fasciculata*, *Dryandra ferruginea*, *Daviesia sp*, *Acacia sp*, *Synaphea sp*

**Number of Plants:** 20 estimated.

**Voucher:** AC 4921

**Comments:** Mal Graham collected *Baeckea sp Hyden* (J.M. Brown 141) on Williams Loc 15435, east side of North Tarin Rock Nature Reserve No. 29857, 28 July 1997 MSG 784

## **4.0 References**

Muir, B. (1977) "Vegetation and Habitat of Bending Reserve" Part 2 of Biological Survey of the Western Australian Wheatbelt. Recordings of the Western Australian Museum. Suppl. No. 3

Rick, AM (2004 unpublished) "Vegetation and Flora Survey of Remnant Vegetation on Williams Location 15205 Lukins Property Kukerin" Report for the Dumbleyung Landcare Zone Committee.



**Appendix 1**

**Rare Flora Report forms**

**and**

**Location Maps**

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Baeckea* sp Hyden (J.M. Brown 141)

CALM POPULATION No.: \_\_\_\_\_

DRF

Priority Species: P3

Partial Survey

Full Survey

New Population

FROM: Anne Rick

TITLE: Botanical Consultant

SURVEY DATE: 26/10/2005

REGION: Wheatbelt

DISTRICT: Katanning

SHIRE: Dumbleyung

LOCATION: 1.2 kms east of Tarin Rock North Road beside a track which runs east off the Tarin Rock North Road 900ms south of Holden Rd. In a narrow strip of remnant vegetation on both sides of the track.

LATITUDE: 33°01' 36.7" S

LONGITUDE: 118°14' 36.2" E

Map Used: \_\_\_\_\_

G.P.S. USED:

DATUM (GPS/MAP):

WGS84

AGD84

GDA94

GDA94-Compatible

LAND STATUS:

Nature Reserve

Private

Gravel Res. MRD

Rail Reserve

National Park

Pastoral Lease

Gravel Res. Shire

Rd. Verge Shire

State Forest

VCL

Other Shire Reserve

Rd. Verge MRD

Water Reserve

Other  Specify: \_\_\_\_\_

SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM:

Hilltop

Cliff

Slope

Valley

Swamp

Outcrop

Breakaway

Low Plain

Gully

Riverbank

Ridge

Sand Dune

Flat

Drainageline

Lake Edge

Firebreak

Other  Specify: Gently sloping terrain

ROCK TYPE:

Laterite

Granite

Dolerite

Limestone

Other: \_\_\_\_\_

ROCK FORM:

Sheet

Boulder

Fluviatile Gravel

Concretionary Gravel

SOIL TYPE:

Sand

Loam

Clay

Peat

Gravel

SOIL COLOUR:

Red

Brown

Yellow

White

Grey

SOIL CONDITION:

Moist

Inundated

Dry

Saline  Other: Sandy loam soils with gravel

over ironstone

VEGETATION CLASSIFICATION (Muir's): Very Open Shrub Mallee over Open Scrub over Low Scrub B over Dwarf Scrub C over Open Dwarf Scrub D

ASSOCIATED SPECIES: *Eucalyptus albida*, *Allocasuarina ?spinosissima*, *Callitris roei*, *Allocasuarina acutivalvis*, *Pittosporum angustifolium*, *Hakea multilineata*, *Dryandra purdiana* (frequent), *Isopogon teretifolius*, *Gastrolobium spinosum*, *Grevillea hookeriana*, *Leptospermum spinosum*, *Beaufortia micrantha*, *Persoonia ?coriacea*, *Dryandra ferruginea*, *Baeckea* sp, *Dryandra fasciculata*, *Calytrix leschenaultii*, *Verticordia picta*, *Hibbertia* sp

No. of PLANTS: Mature: 73 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~ 2ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION: Healthy  Moderate  Poor  Disturbed  Comment: \_\_\_\_\_

POTENTIAL THREATS: Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds

Salinity  Disease  Prescribed Burning  Other  Comment: Road grading.

FIRE HISTORY: Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

FENCING: Not Required  Fenced  Required  Replace/Repair

ROADSIDE MARKERS: Not Required  Present  Required  Replace  Reposition

OTHER COMMENTS (include action taken/required): The *Baeckea* population is healthy however the strip of vegetation on the sides of the track is narrow especially on the northern side and some weed invasion has occurred.

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  AC 5006

ATTACHED: Map  Mudmap  Illustration  Photo  Field Notes

COPY SENT TO: Regional Office  District Office  Other  Specify: \_\_\_\_\_

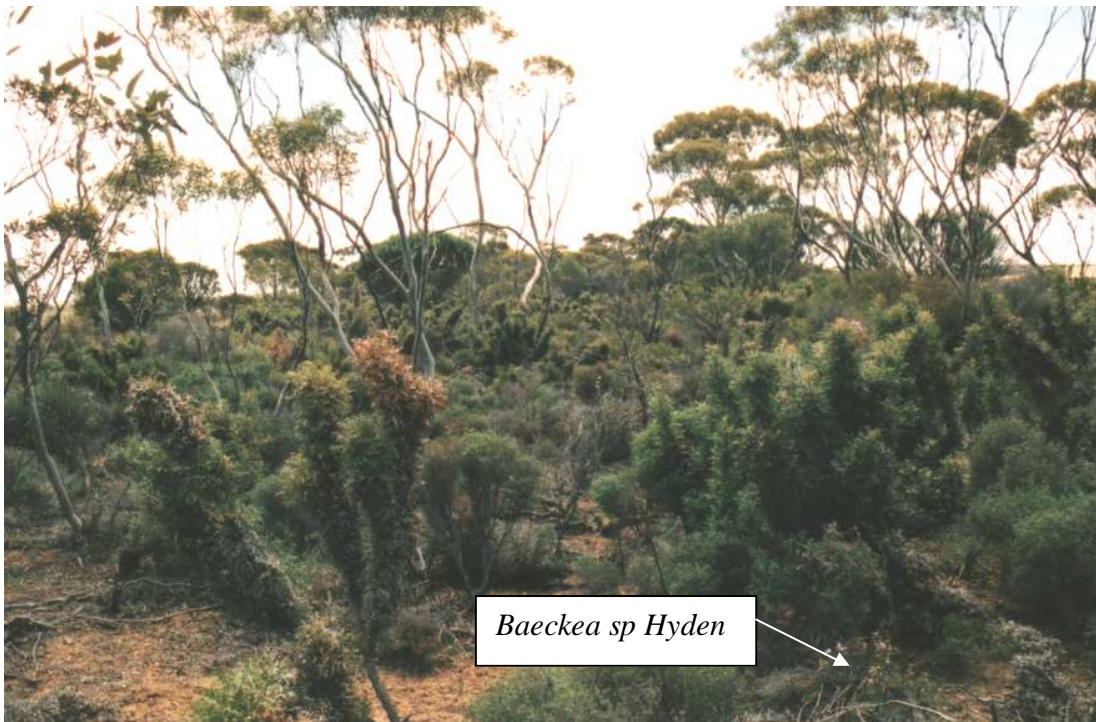
Signed: \_\_\_\_\_

Date: 19/12/2005



**Photograph 1**

*Baeckea sp Hyden* (J.M.Brown 141)



**Photograph 2**

*Baeckea sp Hyden* (J.M.Brown 141) and associated vegetation .

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



**TAXON:** *Baeckea* sp Hyden (J.M. Brown 141) **CALM POPULATION No.:** \_\_\_\_\_

DRF  Priority Species: P3 Partial Survey  Full Survey  New Population

**FROM:** Anne Rick **TITLE:** Botanical Consultant **SURVEY DATE:** 8/9/2004

**REGION:** Wheatbelt **DISTRICT:** Katanning **SHIRE:** Dumbleyung

**LOCATION:** North Tarin Rock Nature Reserve No 29857 Northern Boundary **Reserve No:** A29857

**LATITUDE:** 32° 58' 30.3"S **LONGITUDE:** 118° 14' 26.5" E **Map Used:** \_\_\_\_\_

**G.P.S. USED :**  **DATUM (GPS/MAP):** WGS 84  AGD84  GDA94  GDA94-Compatible

**LAND STATUS:** Nature Reserve  Private  Gravel Res. MRD  Rail Reserve   
 National Park  Pastoral Lease  Gravel Res. Shire  Rd. Verge Shire   
 State Forest  VCL  Other Shire Reserve  Rd. Verge MRD   
 Water Reserve  Other  Specify: \_\_\_\_\_ SLK \_\_\_\_\_ to \_\_\_\_\_

**LANDFORM:** Hilltop  Cliff  Slope  Valley  Swamp   
 Outcrop  Breakaway  Low Plain  Gully  Riverbank   
 Ridge  Sand Dune  Flat  Drainageline  Lake Edge   
 Firebreak  Other  Specify: Gently sloping terrain

**ROCK TYPE:** Laterite  Granite  Dolerite  Limestone  Other: \_\_\_\_\_

**ROCK FORM:** Sheet  Boulder  Fluvialite Gravel  Concretionary Gravel

**SOIL TYPE:** Sand  Loam  Clay  Peat  Gravel

**SOIL COLOUR:** Red  Brown  Yellow  White  Grey

**SOIL CONDITION:** Moist  Inundated  Dry  Saline  Other: Sandy loam with some gravel

**VEGETATION CLASSIFICATION (Muir's):** Open Scrub over Open Low Scrub B over Dwarf Scrub D (Muir 1977). Vegetation regenerating on edge of track.

**ASSOCIATED SPECIES:** *Melaleuca pungens*, *Xanthorrea nana*, *Banksia violacea*, *Gastrolobium spinosum*, *Dampiera juncea*, *Caustis dioica*, *Mesomelaena* sp, *Pityrodia terminalis*, *Dryandra ?fasciculata*, *Dryandra ferruginea*, *Daviesia* sp, *Acacia* sp, *Synaphea* sp

**No. of PLANTS:** Mature: ~ 10 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~ 1ha

**REPRODUCTIVE STATE:** Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

**POLLINATORS:** Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

**CONDITION OF POPULATION:** Healthy  Moderate  Poor  Disturbed  Comment: \_\_\_\_\_

**POTENTIAL THREATS:** Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds   
 Salinity  Disease  Prescribed Burning  Other  Comment: Fire break maintenance may endanger this population.

**FIRE HISTORY:** Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

**FENCING:** Not Required  Fenced  Required  Replace/Repair

**ROADSIDE MARKERS:** Not Required  Present  Required  Replace  Reposition

**OTHER COMMENTS (include action taken/required):** Mal Graham collected *Baeckea* sp Hyden (J.M. Brown 141) on Williams Loc 15435, east side of North Tarin Rock Nature Reserve No. 29857, 28 July 1997 MSG 784

**VOUCHER SPECIMEN:** Regional Herb.  District Herb.  WA Herb.  Other  AC 4921

**ATTACHED:** Map  Mudmap  Illustration  Photo  Field Notes

**COPY SENT TO:** Regional Office  District Office  Other  Specify: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: 19/12/2005

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Boronia penicillata* Benth

CALM POPULATION No.: \_\_\_\_\_

DRF

Priority Species: P3

Partial Survey

Full Survey

New Population

FROM: Anne Rick

TITLE: Botanical Consultant

SURVEY DATE: 1/11/2005

REGION: Wheatbelt

DISTRICT: Katanning

SHIRE: Dumbleyung

LOCATION: Adjacent to the Lake Grace – Dumbleyung Rd. 850 ms East of Hills Rd. both sides of road. Population extends for 550ms. Tarin Rock Nature Reserve. Plants both sides of road on verge and in the disturbed areas adjacent south eg old fire break / track

Reserve No: A 25711

LATITUDE: 33° 06' 25.9" S

LONGITUDE: 118° 11' 58.0" E Map Used: \_\_\_\_\_

G.P.S. USED:

DATUM (GPS/MAP): WGS84  AGD84  GDA94  GDA94-Compatible

LAND STATUS:

Nature Reserve

Private

Gravel Res. MRD

Rail Reserve

National Park

Pastoral Lease

Gravel Res. Shire

Rd. Verge Shire

State Forest

VCL

Other Shire Reserve

Rd. Verge MRD

Water Reserve

Other  Specify: \_\_\_\_\_

SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM:

Hilltop

Cliff

Slope

Valley

Swamp

Outcrop

Breakaway

Low Plain

Gully

Riverbank

Ridge

Sand Dune

Flat

Drainageline

Lake Edge

Firebreak

Other  Specify: Gentle slope

ROCK TYPE:

Laterite

Granite

Dolerite

Limestone

Other: \_\_\_\_\_

ROCK FORM:

Sheet

Boulder

Fluviatile Gravel

Concretionary Gravel

SOIL TYPE:

Sand

Loam

Clay

Peat

Gravel

SOIL COLOUR:

Red

Brown

Yellow

White

Grey

SOIL CONDITION:

Moist

Inundated

Dry

Other - Sandy loam with gravel over ironstone

VEGETATION CLASSIFICATION (Muir's):

Adjacent south - Open Scrub over Low Heath C over Dwarf Scrub D (scattered shrub mallee)

Road side verge - Open Dwarf Scrub C over Low Heath D – *Dampiera* sp, *Lachnostachys ?bracteosa* prominent

ASSOCIATED SPECIES: *Eucalyptus albida*, *Grevillea cagiana*, *Hakea pandanocarpa* ssp *crassifolia*, *Hakea ?cygna*, *Banksia baueri*, *Hakea brownii*, *Allocasuarina pinaster*, *Beaufortia incana*, *Isopogon gardneri*, *Isopogon teretifolius*, *Allocasuarina humilis*, *Dryandra ferruginea*, *Caustis dioica*, *Lachnostachys ?bracteosa*, *Petrophile phyllicoides*, *Banksia sphaerocarpa*, *Dryandra erthrocephala*, *Dryandra vestita*, *Dampiera juncea*, *Xanthorrea nana*, *Beaufortia micrantha*, *Hibbertia ?pungens*, *Chloanthes coccinea*, *Verticordia picta*, *Daviesia uniflora*, *Verticordia roei*, *Verticordia chrysantha*, *Lechenaultia biloba*, *Boronia capitata*, *Jacksonia* sp, *Synaphea* sp

No. of PLANTS: Mature: 195 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~ 2 ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION:

Healthy

Moderate

Poor

Disturbed

Comment: \_\_\_\_\_

POTENTIAL THREATS:

Firebreaks

Mining

Recreation

Roadworks

Grazing

Weeds

Salinity  Disease

Prescribed Burning

Other  Comment: Frequent slashing or grading of the road verge may endanger this population.

FIRE HISTORY:

Not known

Burnt in 19\_\_\_\_

Summer

Autumn

Winter

Spring

FENCING:

Not Required

Fenced

Required

Replace/Repair

ROADSIDE MARKERS:

Not Required

Present

Required

Replace

Reposition

OTHER COMMENTS (include action taken/required): The population is healthy. Part of the road verge has rare flora markers due to the presence of *Dryandra foliosissima*. *Daviesia tortuosa* AC 5052, *Rinzia affinis* AC 5030 and *Dryandra fasciculata* AC 5033 were also collected from this site.

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  AC 5030

ATTACHED: Map

Mudmap

Illustration

Photo

Field Notes

COPY SENT TO:

Regional Office

District Office

Other

Specify: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: 19/12/2005



**Photograph 1** *Boronia penicillata* at site 8. Tarin Rock Nature Reserve



**Photograph 2** Road verge with *Boronia penicillata*, *Rinzia affinis* and *Daviesia tortuosa* at site 8. Tarin Rock Nature reserve



**Photograph 3** Site 8. Vegetation adjacent to the road verge. Tarin Rock Nature Reserve

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Daviesia uncinata* Crisp

CALM POPULATION No.: \_\_\_\_\_

DRF  Priority Species: P3 Partial Survey  Full Survey  New Population

FROM: Anne Rick TITLE: Botanical Consultant SURVEY DATE: 26/10/2005

REGION: Wheatbelt DISTRICT: Katanning SHIRE: Dumbleyung

LOCATION: Unmade road running east to Tarin Rock Nature Reserve from Bladendale Rd. 7.95 kms south of Tarin Rock Rd.

Reserve No: \_\_\_\_\_

LATITUDE 33° 06' 52.8" S LONGITUDE: 118° 05' 49.6" E Map Used: \_\_\_\_\_

G.P.S. USED:  DATUM (GPS/MAP): WGS84  AGD84  GDA94  GDA94-Compatible

LAND STATUS: Nature Reserve  Private  Gravel Res. MRD  Rail Reserve   
National Park  Pastoral Lease  Gravel Res. Shire  Rd. Verge Shire   
State Forest  VCL  Other Shire Reserve  Rd. Verge MRD   
Water Reserve  Other  Specify: Unmade road SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM: Hilltop  Cliff  Slope  Valley  Swamp   
Outcrop  Breakaway  Low Plain  Gully  Riverbank   
Ridge  Sand Dune  Flat  Drainageline  Lake Edge   
Firebreak  Other  Specify: Gently sloping terrain

ROCK TYPE: Laterite  Granite  Dolerite  Limestone  Other: \_\_\_\_\_

ROCK FORM: Sheet  Boulder  Fluvialite Gravel  Concretionary Gravel

SOIL TYPE: Sand  Loam  Clay  Peat  Gravel

SOIL COLOUR: Red  Brown  Yellow  White  Grey

SOIL CONDITION: Moist  Inundated  Dry  Saline  Other: Sandy soils over laterite

VEGETATION CLASSIFICATION (Muir's): Low Scrub B (Low Heath B in places) over Dwarf Scrub C over Dwarf Scrub D

ASSOCIATED SPECIES: *Eremaea pauciflora* (frequent), *Hakea brownii*, *Dryandra pteridifolia*, *Hakea corymbosa*, *Leptospermum erubescens*, *Banksia baueri*, *Hakea obliqua*, *Lambertia ilicifolia*, *Petrophile ericifolia* (frequent), *Allocasuarina humilis*, *Dryandra nivea*, *Dryandra fasciculata*, *Leptospermum spinescens*, *Isopogon teretifolius*, *Petrophile longifolia*, *Banksia violacea*, *Beaufortia micrantha*, *Persoonia sp*, *Dampiera juncea*, *Hibbertia sp*, *Anigozanthos humilis*, *Verticordia ?insignis*, *Baekkea crispiflora*, *Petrophile brevifolia*, *Lepidobolus ?chaetocephalus*, *Desmocladius sp*, *Grevillea hookeriana*

No. of PLANTS: Mature: 7 Seedlings: \_\_\_\_\_ Dead: 1 Actual  Estimate  Area Occupied: ~ 2ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION: Healthy  Moderate  Poor  Disturbed  Comment: \_\_\_\_\_

POTENTIAL THREATS: Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds   
Salinity  Disease  Prescribed Burning  Other  Comment: Rabbits are common and burrowing has caused the death of some plants in the area. The unmade road reserve is narrow ~50 ms and weed invasion has occurred at the edges. Kangaroos are also causing some damage.

FIRE HISTORY: Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

FENCING: Not Required  Fenced  Required  Replace/Repair

ROADSIDE MARKERS: Not Required  Present  Required  Replace  Reposition

OTHER COMMENTS (include action taken/required): The population of *Daviesia uncinata* and the surrounding vegetation is generally in good health. This population was revisited on the 7 December 2005 and a flowering specimen collected.

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  AC 5015, AC 5044  
(Flowering specimen collected on 7<sup>th</sup> December 2005)

ATTACHED: Map  Mudmap  Illustration  Photo  Field Notes

COPY SENT TO: Regional Office  District Office  Other  Specify: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: 19/12/2005





**Photograph 1** *Daviesia uncinata* in flower at site 9. The photograph was taken on 7 December 2005.



**Photograph 2** *Daviesia uncinata* - associated vegetation east of Bladendale Road.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Dryandra fasciculata* A.S. George

CALM POPULATION No.: \_\_\_\_\_

DRF

Priority Species: P3

Partial Survey

Full Survey

New Population

FROM: Anne Rick

TITLE: Botanical Consultant

SURVEY DATE: 26/10/2005

REGION: Wheatbelt

DISTRICT: Katanning

SHIRE: Dumbleyung Shire

LOCATION: Unmade road. Running east to Tarin Rock Nature Reserve from Bladendale Rd. Starting 7.95 kms South of Tarin Rock Rd. ~ 50 ms wide.

Reserve No: \_\_\_\_\_

LATITUDE: 33° 06' 52.9"S

LONGITUDE: 118° 05' 48.4" E

Map Used: \_\_\_\_\_

G.P.S. USED:

DATUM (GPS/MAP): WGS 84

AGD84

GDA94

GDA94-Compatible

LAND STATUS:

Nature Reserve

Private

Gravel Res. MRD

Rail Reserve

National Park

Pastoral Lease

Gravel Res. Shire

Rd. Verge Shire

State Forest

VCL

Other Shire Reserve

Rd. Verge MRD

Water Reserve

Other

Specify: Unmade Road

SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM:

Hilltop

Cliff

Slope

Valley

Swamp

Outcrop

Breakaway

Low Plain

Gully

Riverbank

Ridge

Sand Dune

Flat

Drainageline

Lake Edge

Firebreak

Other

Specify: Gently sloping terrain

ROCK TYPE:

Laterite

Granite

Dolerite

Limestone

Other: \_\_\_\_\_

ROCK FORM:

Sheet

Boulder

Fluviatile Gravel

Concretionary Gravel

SOIL TYPE:

Sand

Loam

Clay

Peat

Gravel

SOIL COLOUR:

Red

Brown

Yellow

White

Grey

SOIL CONDITION:

Moist

Inundated

Dry

Saline  Other: Sandy soil over laterite

VEGETATION CLASSIFICATION (Muir's): Low Scrub B over Dwarf Scrub C over Dwarf Scrub D

ASSOCIATED SPECIES: *Eremaea pauciflora*, *Hakea brownii*, *Dryandra pteridifolia*, *Hakea corymbosa*, *Banksia baueri*, *Hakea obliqua*, *Lambertia ilicifolia*, *Petrophile ericifolia*, *Allocasuarina humilis*, *Dryandra nivea*, *Dryandra fasciculata*, *Leptospermum spinescens*, *Isopogon teretifolius*, *Petrophile longifolia*, *Banksia violacea*, *Beaufortia micrantha*, *Persoonia sp*, *Dampiera juncea*, *Hibbertia sp*, *Anigozanthos humilis*, *Verticordia ?insignis*, *Baeckea crispiflora*, *Petrophile brevifolia*, *Lepidobolus ?chaetocephala*, *Desmocladus sp*, *Grevillea hookeriana*

No. of PLANTS: Mature: 100+ Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~5 ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION: Healthy  Moderate  Poor  Disturbed  Comment: \_\_\_\_\_

POTENTIAL THREATS: Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds

Salinity  Disease  Prescribed Burning  Other  Comment: Rabbits are common and burrowing has caused the death of some plants in the area. The unmade road reserve is narrow ~50 ms and weed invasion has occurred at the edges. Kangaroos are also causing some damage.

FIRE HISTORY: Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

FENCING: Not Required  Fenced  Required  Replace/Repair

ROADSIDE MARKERS: Not Required  Present  Required  Replace  Reposition

OTHER COMMENTS (include action taken/required): The population of *Dryandra faciculata* and the surrounding vegetation is generally in good health.

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  AC 5016

ATTACHED: Map  Mudmap  Illustration  Photo  Field Notes

COPY SENT TO: Regional Office  District Office  Other  Specify: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: 19/12/2005



**Photograph 1.** *Dryandra fasciculata* at site 10 - unmade road running east from Bladendale Rd



**Photograph 2** *Dryandra fasciculata* and associated vegetation at Site 10 unmade road running east from Bladendale Rd

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Dryandra meganotia* A.S. George

CALM POPULATION No.: \_\_\_\_\_

DRF

Priority Species: P3

Partial Survey

Full Survey

New Population

FROM: Anne Rick

TITLE: Botanical Consultant

SURVEY DATE: 26/10/2005

REGION: Wheatbelt

DISTRICT: Katanning

SHIRE: Dumbleyung

LOCATION: Unmade road. Running east to Tarin Rock Nature Reserve from Bladendale Road, 7.95 kms south of Tarin Rock road and on the Bladendale road verge to the south.

Reserve No: \_\_\_\_\_

LATITUDE: 33° 06' 53.1" S

LONGITUDE: 118° 05' 45.2" E

Map Used: \_\_\_\_\_

G.P.S. USED :

DATUM (GPS/MAP): WGS84  AGD84  GDA94  GDA94-Compatible

LAND STATUS:

Nature Reserve

Private

Gravel Res. MRD

Rail Reserve

National Park

Pastoral Lease

Gravel Res. Shire

Rd. Verge Shire

State Forest

VCL

Other Shire Reserve

Rd. Verge MRD

Water Reserve

Other

Specify: Unmade Road

SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM:

Hilltop

Cliff

Slope

Valley

Swamp

Outcrop

Breakaway

Low Plain

Gully

Riverbank

Ridge

Sand Dune

Flat

Drainageline

Lake Edge

Firebreak

Other

Specify: Gently sloping terrain

ROCK TYPE:

Lateritic

Granite

Dolerite

Limestone

Other: \_\_\_\_\_

ROCK FORM:

Sheet

Boulder

Fluviatile Gravel

Concretionary Gravel

SOIL TYPE:

Sand

Loam

Clay

Peat

Gravel

SOIL COLOUR:

Red

Brown

Yellow

White

Grey

SOIL CONDITION:

Moist

Inundated

Dry

Saline  Other: Sandy soil over laterite

VEGETATION CLASSIFICATION (Muir's): Low Scrub B (Low Heath B in places) over Dwarf Scrub C over Dwarf Scrub D

ASSOCIATED SPECIES: *Eremaea pauciflora* (frequent), *Hakea brownii*, *Dryandra pteridifolia*, *Hakea corymbosa*, *Leptospermum erubescens*, *Banksia baueri*, *Hakea obliqua*, *Lambertia ilicifolia*, *Petrophile ericifolia* (frequent), *Allocasuarina humilis*, *Dryandra nivea*, *Dryandra fasciculata*, *Leptospermum spinescens*, *Isopogon teretifolius*, *Petrophile longifolia*, *Banksia violacea*, *Beaufortia micrantha*, *Persoonia sp*, *Dampiera juncea*, *Hibbertia sp*, *Anigozanthos humilis*, *Verticordia ?insignis*, *Baekkea crispiflora*, *Petrophile brevifolia*, *Lepidobolus ?chaetocephalus*, *Desmocladius sp*, *Grevillea hookeriana*

No. of PLANTS:

Mature: 52

Seedlings: \_\_\_\_\_

Dead: \_\_\_\_\_

Actual

Estimate

Area Occupied: ~ 2ha

REPRODUCTIVE STATE:

Clonal

Flower bud

Flower

Immat. fruit

Fruit

Old Fruit

Vegetative

POLLINATORS:

Native bees

Honey bees

Other insects

Birds

Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION:

Healthy

Moderate

Poor

Disturbed

Comment: \_\_\_\_\_

POTENTIAL THREATS:

Firebreaks

Mining

Recreation

Roadworks

Grazing

Weeds

Salinity

Disease

Prescribed Burning

Other

Comment: Rabbits are common and burrowing has

caused the death of some plants in the area. The unmade road reserve is narrow ~50 ms and weed invasion has occurred at the edges.

Kangaroos are also causing some damage

FIRE HISTORY:

Not known

Burnt in 19\_\_\_\_\_

Summer

Autumn

Winter

Spring

FENCING:

Not Required

Fenced

Required

Replace/Repair

ROADSIDE MARKERS:

Not Required

Present

Required

Replace

Reposition

OTHER COMMENTS (include action taken/required): The population of *Dryandra meganotia* and the surrounding vegetation is generally in good health. This site also has *Daviesia uncinata* and *Dryandra fasciculata* present.

VOUCHER SPECIMEN:

Regional Herb.

District Herb.

WA Herb.

Other  AC 5042

ATTACHED:

Map

Mudmap

Illustration

Photo

Field Notes

COPY SENT TO:

Regional Office

District Office

Other

Specify: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: 19/12/2005



**Photograph 1** *Dryandra meganotia*. Unmade road north of Kukerin.



**Photograph 2** *Dryandra meganotia* and associated vegetation at site 11

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Dryandra meganotia* A.S. George

CALM POPULATION No.: \_\_\_\_\_

DRF

Priority Species: P3

Partial Survey

Full Survey

New Population

FROM: Anne Rick

TITLE: Botanical Consultant

SURVEY DATE: 18/10/2002

REGION: Wheatbelt

DISTRICT: Katanning

SHIRE: Dumbleyung

LOCATION: Area of remnant vegetation situated approximately 5 kms south east of Kukerin (Williams Location 15205) south of Siberia Road. Survey site 2 and Quadrat 2 near the western boundary. Reserve No: \_\_\_\_\_

LATITUDE: 33° 12' 31" S

LONGITUDE: 118° 07' 51" E

Map Used: \_\_\_\_\_

G.P.S. USED:

DATUM (GPS/MAP): WGS84  AGD84  GDA94  GDA94-Compatible

LAND STATUS:

Nature Reserve

Private

Gravel Res. MRD

Rail Reserve

National Park

Pastoral Lease

Gravel Res. Shire

Rd. Verge Shire

State Forest

VCL

Other Shire Reserve

Rd. Verge MRD

Water Reserve

Other  Specify: Remnant vegetation on farmland SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM:

Hilltop

Cliff

Slope

Valley

Swamp

Outcrop

Breakaway

Low Plain

Gully

Riverbank

Ridge

Sand Dune

Flat

Drainageline

Lake Edge

Firebreak

Other

Specify: gently sloping terrain

ROCK TYPE:

Laterite

Granite

Dolerite

Limestone

Other: \_\_\_\_\_

ROCK FORM:

Sheet

Boulder

Fluviatile Gravel

Concretionary Gravel

SOIL TYPE:

Sand

Loam

Clay

Peat

Gravel

SOIL COLOUR:

Red

Brown

Yellow

White

Grey

SOIL CONDITION:

Moist

Inundated

Dry

Saline  Other: Deep sandy soils with sub-

surface laterite

VEGETATION CLASSIFICATION (Muir's): Open Low Scrub B over Low Heath C over Dwarf Scrub D (scattered shrub mallee)

ASSOCIATED SPECIES: *Eucalyptus incrassata*, *Hakea pandanica* ssp *crassifolia*, *Eremaea pauciflora*, *Dryandra fasciculata*, *Leptospermum erubescens*, *Daviesia uniflora*, *Isopogon teretifolius*, *Verticordia roei*, *V. chrysantha*, *V. picta*, *Xanthorrhoea nana*, *Dryandra erythrocephala*, *Perossonia striata*, *Hakea incrassata*, *Allocasuarina microstachya*, *Kunzea micromera*. *Caustis dioica*, *Lepidosperma* sps, *Lepidobolus chaetocephalus*, *Hibbertia ?gracilipes*, *Leucopogon* sps, *Rinzia communis*, *Calytrix leschenaultii*, *Petrophile brevifolia*, *Verticordia acerosa* var. *preissii*, *Baeckea preissiana*, *Hakea lissocarpa*, *Desmocladius quiricanus*, *Verticordia acerosa* var. *preissii*

No. of PLANTS: Mature: 20 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~1 ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION: Healthy  Moderate  Poor  Disturbed  Comment: \_\_\_\_\_

POTENTIAL THREATS: Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds

Salinity  Disease  Prescribed Burning  Other  Comment: \_\_\_\_\_

FIRE HISTORY: Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

FENCING: Not Required  Fenced  Required  Replace/Repair

ROADSIDE MARKERS: Not Required  Present  Required  Replace  Reposition

OTHER COMMENTS (include action taken/required): This area was surveyed in 2002 and 2003 as part of a project for the Dumbleyung Landcare Zone Committee to establish the Kukerin Regional Herbarium

Rick, AM (2004 unpublished) "Vegetation and Flora Survey of Remnant Vegetation on Williams Location 15205 Lukins Property Kukerin" Report for the Dumbleyung Landcare Zone Committee

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  Jan Grey collection JG 30

ATTACHED: Map  Mudmap  Illustration  Photo  Field Notes

COPY SENT TO: Regional Office  District Office  Other  Specify: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: 19/12/2005



**Photograph 1.** The site of the collection of *Dryandra meganotia* on Williams Location 15205 (Site 2 and Quadrat 2 of the consultants report)

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Gastrolobium densifolium* C.A. Gardner

CALM POPULATION No.: \_\_\_\_\_

DRF

Priority Species: P4

Partial Survey

Full Survey

New Population

FROM: Anne Rick

TITLE: Botanical Consultant

SURVEY DATE: 1/11/2005

REGION: Wheatbelt

DISTRICT: Katanning

SHIRE: Dumbleyung

LOCATION: Duggan Water Reserve, 200ms west of the track crossing the railway line on the southern side of the line. Plants occur between the railway line and the track on the south side of the line and on the southern side of the track.

LATITUDE: 33° 08' 46.1" S

LONGITUDE: 118° 09' 15.2" E Map Used: \_\_\_\_\_

G.P.S. USED:

DATUM (GPS/MAP): WGS84  AGD84  GDA94  GDA94-Compatible

LAND STATUS:

Nature Reserve

Private

Gravel Res. MRD

Rail Reserve

National Park

Pastoral Lease

Gravel Res. Shire

Rd. Verge Shire

State Forest

VCL

Other Shire Reserve

Rd. Verge MRD

Water Reserve

Other  Specify: \_\_\_\_\_

SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM:

Hilltop

Cliff

Slope

Valley

Swamp

Outcrop

Breakaway

Low Plain

Gully

Riverbank

Ridge

Sand Dune

Flat

Drainageline

Lake Edge

Firebreak

Other

Specify: Gentle slope

ROCK TYPE:

Laterite

Granite

Dolerite

Limestone

Other: \_\_\_\_\_

ROCK FORM:

Sheet

Boulder

Fluviatile Gravel

Concretionary Gravel

SOIL TYPE:

Sand

Loam

Clay

Peat

Gravel

SOIL COLOUR:

Red

Brown

Yellow

White

Grey

SOIL CONDITION:

Moist

Inundated

Dry x

Saline  Other: Sandy loam and gravel

VEGETATION CLASSIFICATION (Muir's):

Between the railway line and the track – Scrub A over Low Heath D.

South of the track – Scrub A over Dwarf Scrub C over Low Heath D.

ASSOCIATED SPECIES: *Melaleuca "uncinata"*, *Allocasuarina campestris*, *Leptospermum erubescens*, *Grevillea hookeriana*, *Hakea lissocarpha*, *Hakea scoparia*, *Melaleuca ?carrii*, *Pimelea angustifolia*, *Dodonaea ?caespitosa*, *Philotheca rhomboidea*, *Phebalium filifolium*, *Allocasuarina microstachya*, *Hakea incrassata*, *Hibbertia ?pungens*, *Neurachne alopecuroidea*, *Comesperma scoparium*, *Dampiera juncea*, *Baeckea crispiflora*, *Verticordia chrysantha*, *Verticordia picta*, *Waitzia acuminata*, *Calytrix*, *leschenaultii*, *Stylidium luteum*, *Borya sp.*

No. of PLANTS:

Mature: 157 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual

Estimate  Area Occupied: ~ 1ha

REPRODUCTIVE STATE:

Clonal

Flower bud

Flower

Immat. Fruit

Fruit

Old Fruit

Vegetative

POLLINATORS:

Native bees

Honey bees

Other insects

Birds

Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION:

Healthy

Moderate

Poor

Disturbed

Comment: \_\_\_\_\_

POTENTIAL THREATS:

Firebreaks

Mining

Recreation

Roadworks

Grazing

Weeds

Salinity

Disease

Prescribed Burning

Other

Comment: Track and railway maintenance may threaten the population in the future.

FIRE HISTORY:

Not known

Burnt in 19\_\_\_\_

Summer

Autumn

Winter

Spring

FENCING:

Not Required

Fenced

Required

Replace/Repair

ROADSIDE MARKERS:

Not Required

Present

Required

Replace

Reposition

OTHER COMMENTS (include action taken/required):

VOUCHER SPECIMEN:

Regional Herb.

District Herb.

WA Herb.

Other  AC 5028

ATTACHED:

Map

Mudmap

Illustration

Photo

Field Notes

COPY SENT TO:

Regional Office

District Office

Other

Specify: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: 19/12/2005





**Photograph 1** *Gastrolobium densifolium* in Duggan Water reserve.



**Photograph 2** *Gastrolobium densifolium* between the railway line and the track.



**Photograph 3** *Gastrolobium densifolium* on the south side of the track.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Jacksonia debilis* Chappill ms CALM POPULATION No.:

DRF  Priority Species: P1 Partial Survey  Full Survey  New Population

FROM: Anne Rick TITLE: Consultant Botanist SURVEY DATE: 26/10/2005

REGION: Wheatbelt DISTRICT: Katanning SHIRE: Dumbleyung Shire

LOCATION: 4.7 kms West of Hills Rd along the Tarin Rock Rd. Road Reserve on the North side of the road. ~75ms wide.

LATITUDE 33° 03' 07.7"S

LONGITUDE: 118° 08' 33.3" E

Map Used:

G.P.S. USED:  DATUM (GPS/MAP): WGS 84  AGD84  GDA94  GDA94-Compatible

LAND STATUS: Nature Reserve  Private  Gravel Res. MRD  Rail Reserve   
National Park  Pastoral Lease  Gravel Res. Shire  Rd. Verge Shire   
State Forest  VCL  Other Shire Reserve  Rd. Verge MRD   
Water Reserve  Other  Specify: Shire road reserve SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM: Hilltop  Cliff  Slope  Valley  Swamp   
Outcrop  Breakaway  Low Plain  Gully  Riverbank   
Ridge  Sand Dune  Flat  Drainageline  Lake Edge   
Firebreak  Other  Specify: Gently sloping terrain

ROCK TYPE: Laterite  Granite  Dolerite  Limestone  Other: \_\_\_\_\_

ROCK FORM: Sheet  Boulder  Fluvialite Gravel  Concretionary Gravel

SOIL TYPE: Sand  Loam  Clay  Peat  Gravel

SOIL COLOUR: Red  Brown  Yellow  White  Grey

SOIL CONDITION: Moist  Inundated  Dry  Saline  Deep loamy sand over laterite

VEGETATION CLASSIFICATION (Muir's): Dwarf Scrub C over Low Heath D (scattered shrubs over 2 ms)

ASSOCIATED SPECIES *Hakea obliqua*, *Petrophile ericifolia*, *Dryandra pteridifolia*, *Banksia baueri*, *Eremaea pauciflora*, *Anigozanthos humilis*, *Andersonia sp*, *Dryandra nivea*, *Banksia violacea*, *Allocasuarina microstachya*, *Causitis dioica*, *Verticordia ovalifolia*, *Verticordia ?insignis*, *Lachnostachys verbascifolia*, *Conostylis sp*, *Dampiera ?linearis*, *Boronia ramosa ssp anethifolia*

No. of PLANTS: Mature: 3 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~ 2 ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION: Healthy  Moderate  Poor  Disturbed  Comment:

POTENTIAL THREATS: Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds   
Salinity  Disease  Prescribed Burning  Other  Comment: Plants are some distance from the road edge.

FIRE HISTORY: Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

FENCING: Not Required  Fenced  Required  Replace/Repair

ROADSIDE MARKERS: Not Required  Present  Required  Replace  Reposition

OTHER COMMENTS (include action taken/required): The road reserve is ~ 75 ms wide and is generally in good condition.

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  AC 5007

ATTACHED: Map  Mudmap  Illustration  Photo  Field Notes

COPY SENT TO: Regional Office  District Office  Other  Specify: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: 19/12/2005

NOTE: More than one box, in any section may be ticked. Map or further information may be given on the back of this form.

Please return completed form to Executive Director, CALM, Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983

RECORDS: PLEASE FORWARD TO ADMINISTRATIVE OFFICER, FLORA, WILDLIFE BRANCH



**Photograph 1** *Jacksonia debilis*



**Photograph 2** Shrubland on sandy soils at Site 1 (*Jacksonia debilis* site)

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



**TAXON:** Jacksonia debilis Chappill ms      **CALM POPULATION No.:** \_\_\_\_\_

DRF       Priority Species: P1      Partial Survey       Full Survey       New Population

**FROM:** Anne Rick      **TITLE:** Botanical Consultant      **SURVEY DATE:** 26/10/05

**REGION:** Wheatbelt      **DISTRICT:** Katanning      **SHIRE:** Dumbleyung

**LOCATION:** Unmade road. Running east to Tarin Rock Nature Reserve from Bladendale Rd. 7.95 kms South of Tarin Rock Rd.

**LATITUDE:** 33° 06' 52.9" S      **LONGITUDE:** 118° 05' 48.4" E      **Map Used:** \_\_\_\_\_

**G.P.S. USED :**       **DATUM (GPS/MAP):** WGS84       AGD84       GDA94       GDA94-Compatible

**LAND STATUS:** Nature Reserve       Private       Gravel Res. MRD       Rail Reserve   
National Park       Pastoral Lease       Gravel Res. Shire       Rd. Verge Shire   
State Forest       VCL       Other Shire Reserve       Rd. Verge MRD   
Water Reserve       Other       Specify: Unmade Road      SLK \_\_\_\_\_ to \_\_\_\_\_

**LANDFORM:** Hilltop       Cliff       Slope       Valley       Swamp   
Outcrop       Breakaway       Low Plain       Gully       Riverbank   
Ridge       Sand Dune       Flat       Drainageline       Lake Edge   
Firebreak       Other       Specify: \_\_\_\_\_

**ROCK TYPE:** Laterite       Granite       Dolerite       Limestone       Other: \_\_\_\_\_

**ROCK FORM:** Sheet       Boulder       Fluvial Gravel       Concretionary Gravel

**SOIL TYPE:** Sand       Loam       Clay       Peat       Gravel

**SOIL COLOUR:** Red       Brown       Yellow       White       Grey

**SOIL CONDITION:** Moist       Inundated       Dry       Other: Sandy soils over laterite

**VEGETATION CLASSIFICATION (Muir's):** Low Scrub B (Low Heath B in places) over Dwarf Scrub C over Dwarf Scrub D

**ASSOCIATED SPECIES** *Eremaea pauciflora* (frequent), *Hakea brownii*, *Dryandra pteridifolia*, *Hakea corymbosa*, *Leptospermum erubescens*, *Banksia baueri*, *Hakea obliqua*, *Lambertia ilicifolia*, *Petrophile ericifolia* (frequent), *Allocasuarina humilis*, *Dryandra nivea*, *Dryandra fasciculata*, *Leptospermum spinescens*, *Isopogon teretifolia*, *Petrophile longifolia*, *Banksia violacea*, *Beaufortia micrantha*, *Persoonia sp.*, *Dampiera juncea*, *Hibbertia sp.*, *Anigozanthos humilis*, *Verticordia ?insignis*, *Baeckea crispiflora*, *Petrophile brevifolia*, *Lepidobolus ?chaetocephalus*, *Desmocladius sp.*, *Grevillea hookeriana*

**No. of PLANTS:** Mature: 3      Seedlings: \_\_\_\_\_      Dead: \_\_\_\_\_      Actual       Estimate       Area Occupied: ~ 2ha

**REPRODUCTIVE STATE:** Clonal       Flower bud       Flower       Immat. fruit       Fruit       Old Fruit       Vegetative

**POLLINATORS:** Native bees       Honey bees       Other insects       Birds       Mammals

Other observations: \_\_\_\_\_

**CONDITION OF POPULATION:** Healthy       Moderate       Poor       Disturbed       Comment: The population of *Jacksonia debilis* and the surrounding vegetation is generally in good health.

**POTENTIAL THREATS:** Firebreaks       Mining       Recreation       Roadworks       Grazing       Weeds   
Salinity       Disease       Prescribed Burning       Other       Comment: Rabbits are common and burrowing has caused the death of some plants in the area. The unmade road reserve is narrow ~50 ms and weed invasion has occurred at the edges. Kangaroos are also causing some damage.

**FIRE HISTORY:** Not known       Burnt in 19\_\_\_\_      Summer       Autumn       Winter       Spring

**FENCING:** Not Required       Fenced       Required       Replace/Repair

**ROADSIDE MARKERS:** Not Required       Present       Required       Replace       Reposition

**OTHER COMMENTS (include action taken/required):** \_\_\_\_\_

**VOUCHER SPECIMEN:** Regional Herb.       District Herb.       WA Herb.       Other       AC 5017

**ATTACHED:** Map       Mudmap       Illustration       Photo       Field Notes

**COPY SENT TO:** Regional Office       District Office       Other       Specify: \_\_\_\_\_

Signed: \_\_\_\_\_      Date: 19/12/2005



**Photograph 1** *Jacksonia debilis* at site 9 growing with *Daviesia uncinata* and *Dryandra meganotia*.



**Photograph 2** Site 9 the location of a new population of *Jacksonia debilis*.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Microcorys lenticularis* F. Muell. CALM POPULATION No.: \_\_\_\_\_

DRF  Priority Species: P2 Partial Survey  Full Survey  New Population

FROM: Anne Rick TITLE: Botanical consultant SURVEY DATE: 26/10/2005

REGION: Wheatbelt DISTRICT: Katanning SHIRE: Dumbleyung

LOCATION: 6 kms west of Hills Rd on the Dumbleyung-Lake Grace Road. Both sides of the road on verges for 750 ms and a disturbed area south of the road.

LATITUDE: 33° 08' 50.1" S LONGITUDE: 118° 08' 30.9" E Map Used: \_\_\_\_\_

G.P.S. USED:  DATUM (GPS/MAP): WGS84  AGD84  GDA94  GDA94-Compatible

LAND STATUS: Nature Reserve  Private  Gravel Res. MRD  Rail Reserve   
National Park  Pastoral Lease  Gravel Res. Shire  Rd. Verge Shire   
State Forest  VCL  Other Shire Reserve  Rd. Verge MRD   
Water Reserve  Other  Specify: \_\_\_\_\_ SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM: Hilltop  Cliff  Slope  Valley  Swamp   
Outcrop  Breakaway  Low Plain  Gully  Riverbank   
Ridge  Sand Dune  Flat  Drainageline  Lake Edge   
Firebreak  Other  Specify: Gentle slope

ROCK TYPE: Laterite  Granite  Dolerite  Limestone  Other: \_\_\_\_\_

ROCK FORM: Sheet  Boulder  Fluvialite Gravel  Concretionary Gravel

SOIL TYPE: Sand  Loam  Clay  Peat  Gravel

SOIL COLOUR: Red  Brown  Yellow  White  Grey

SOIL CONDITION: Moist  Inundated  Dry  Sandy soils over laterite at depth.

VEGETATION CLASSIFICATION (Muir's): Road verge - Dwarf Scrub C over Open Dwarf Scrub D.

Adjacent vegetation - Open Scrub over Low Heath C over Dwarf Scrub C (scattered Shrub Mallee).

Disturbed area south - Open Scrub over Dwarf Scrub C over Dwarf Scrub D

ASSOCIATED SPECIES: Road verge *Hakea corymbosa*, *Eremaea pauciflora*, *Verticordia ovalifolia*, *Lambertia inermis*, *Caustis dioica*, *Pityrodia terminalis*, *Comespernum sp*, *Acacia sp*

Adjacent vegetation *Eucalyptus albida*, *Banksia attenuata*, *Lambertia inermis*, *Hakea corymbosa*, *Allocasuarina humilis*, *Hakea brownii*, *Dryandra ?purdiana*, *Leptospermum spinescens*, *Eremaea pauciflora* (frequent) *Banksia baueri*, *Adenanthos ?cygnorum*, *Petrophile ericifolia*, *Kunzea sp*, *Petrophile longifolia*, *Melaleuca pungens*, *Andersonia sp*, *Calytrix leschenaultii*, *Gastrolobium bennettsianum*, *Dampiera sp*, *Baeckea sp*, *Leucopogon sp*, *Desmocladius sp*

Disturbed area south *Kunzea sp*, *Leptospermum ?nitenis*, *Eremaea pauciflora* (frequent), *Banksia baueri*, *Lambertia inermis*, *Daviesia sp*, *Caustis dioica*, *Adenanthos cygnorum*, *Verticordia ovalifolia*, *Dryandra nivea*, *Comespernum ?distichum*, *Comespernum brownii*, *Petrophile ericifolia*, *Calytrix leschenaultia*, *Verticordia chrysantha*, *Petrophile longifolia*, *Urodon dasyphyllus*, *Lechenaultia tubiflora*, *Andersonia sp*, *Verticordia ?insignis*

No. of PLANTS: Mature: 108 on verge, 62 plants disturbed area south Actual  Estimate  Area Occupied: ~ 5 ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

CONDITION OF POPULATION: Healthy  Moderate  Poor  Disturbed  Comment:

POTENTIAL THREATS: Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds   
Salinity  Disease  Prescribed Burning  Other  Comment: Frequent grading/ slashing of verges.

FIRE HISTORY: Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

FENCING: Not Required  Fenced  Required  Replace/Repair

ROADSIDE MARKERS: Not Required  Present  Required  Replace  Reposition

OTHER COMMENTS (include action taken/required): Road verge has been previously slashed. Future slashing of the verge, if too frequent, may endanger the population. Rare flora markers need to be extended.

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  AC 5018

ATTACHED: Map  Mudmap  Illustration  Photo  Field Notes

COPY SENT TO: Regional Office  District Office  Other  Specify: \_\_\_\_\_



**Photograph 1** *Microcorys lenticularis* on the road verge of the Lake Grace –Dumbleyung Road.



**Photograph 2** Roadside verge at site 3.





**Photograph 3** *Microcorys lenticularis* south of the road at site 3.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
**RARE FLORA REPORT FORM**



**TAXON:** *Microcorys lenticularis* F Muell

**CALM POPULATION No.:** \_\_\_\_\_

DRF  Priority Species: P2 Partial Survey  Full Survey  New Population

**FROM:** Anne Rick **TITLE:** Botanical consultant **SURVEY DATE:** 12/10/2005

**REGION:** Wheatbelt **DISTRICT:** Katanning **SHIRE:** Dumbleyung

**LOCATION:** Tarin Rock Nature Reserve, Adjacent to North - South fire break. 1.1 kms from the Northern boundary  
**Reserve No:** A 25711

**LATITUDE:** 33° 05' 37" S **LONGITUDE:** 118° 10' 49" E **Map Used:** \_\_\_\_\_

**G.P.S. USED :**  **DATUM (GPS/MAP):** WGS 84  AGD84  GDA94  GDA94-Compatible

**LAND STATUS:** Nature Reserve  Private  Gravel Res. MRD  Rail Reserve   
 National Park  Pastoral Lease  Gravel Res. Shire  Rd. Verge Shire   
 State Forest  VCL  Other Shire Reserve  Rd. Verge MRD   
 Water Reserve  Other  Specify: \_\_\_\_\_ SLK \_\_\_\_\_ to \_\_\_\_\_

**LANDFORM:** Hilltop  Cliff  Slope  Valley  Swamp   
 Outcrop  Breakaway  Low Plain  Gully  Riverbank   
 Ridge  Sand Dune  Flat  Drainageline  Lake Edge   
 Firebreak  Other  Specify: Gentle slope

**ROCK TYPE:** Laterite  Granite  Dolerite  Limestone  Other: \_\_\_\_\_

**ROCK FORM:** Sheet  Boulder  Fluvialite Gravel  Concretionary Gravel

**SOIL TYPE:** Sand  Loam  Clay  Peat  Gravel

**SOIL COLOUR:** Red  Brown  Yellow  White  Grey

**SOIL CONDITION:** Moist  Inundated  Dry  Saline  Other: Deep sandy soils over laterite

**VEGETATION CLASSIFICATION** (Muir's): Low Scrub B over Low Heath C (scattered Shrub Mallee)

**ASSOCIATED SPECIES:** *Eucalyptus albida*, *Banksia baueri*, *Eremaea pauciflora*, *Lambertia ilicifolia*, *Leptospermum erubescens*,  
*Dryandra nivea*, *Callitris sp.*, *Dampiera wellsiana*, *Conostylis petrophiloides*, *Pityrodia bartlingii*, *Dampiera linearis*, *Billardiera sp.*,  
*Calectasia pignattiana* DRF, *Pultenaea verruculosa var brachyphylla*, *Lachnostachys albicans*,

**No. of PLANTS:** Mature: 20 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~ 1ha

**REPRODUCTIVE STATE:** Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

**POLLINATORS:** Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

**CONDITION OF POPULATION:** Healthy  Moderate  Poor  Disturbed  Comment: \_\_\_\_\_

**POTENTIAL THREATS:** Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds   
 Salinity  Disease  Prescribed Burning  Other  Comment: Fire break maintenance may endanger plants close to the edge of the track including *Calectasia pignattiana* DRF.

**FIRE HISTORY:** Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

**FENCING:** Not Required  Fenced  Required  Replace/Repair

**ROADSIDE MARKERS:** Not Required  Present  Required  Replace  Reposition

**OTHER COMMENTS** (include action taken/required): *Calectasia pignattiana* DRF was also collected from this site Elsie Bishop 167

**VOUCHER SPECIMEN:** Regional Herb.  District Herb.  WA Herb.  Other  Elsie bishop 169 collected 14/10/2002

**ATTACHED:** Map  Mudmap  Illustration  Photo  Field Notes

**COPY SENT TO:** Regional Office  District Office  Other  Specify: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: 19/12/2005



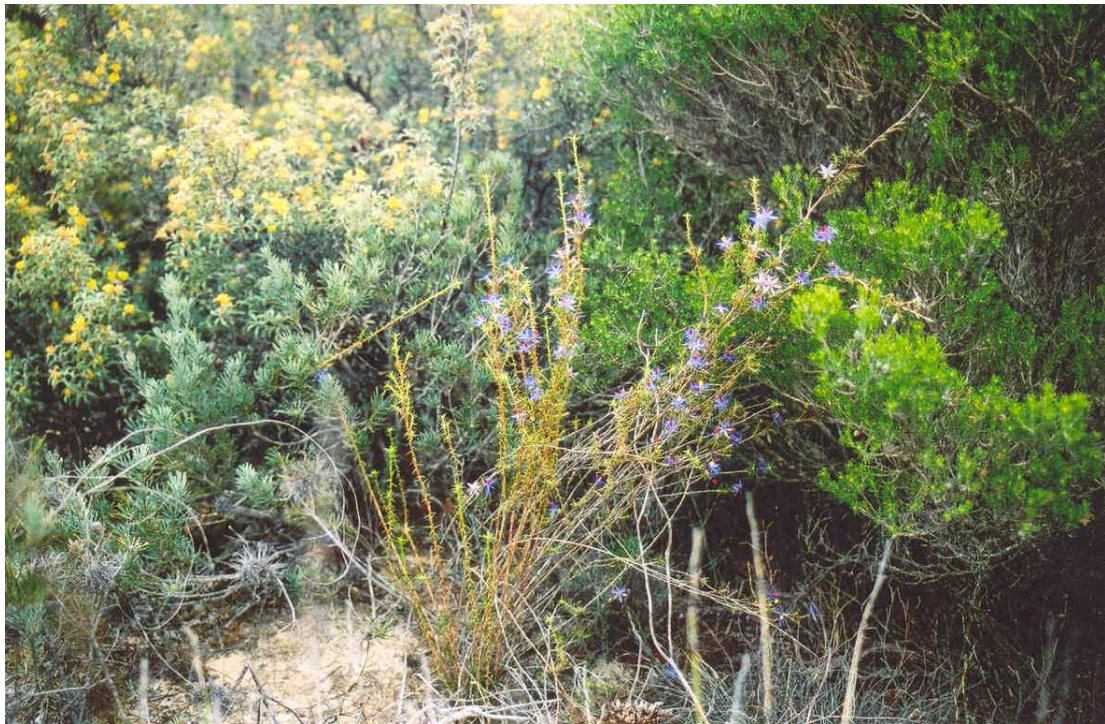
**Photograph 1** *Microcorys lenticularis* adjacent to the firebreak in the Tarin Rock Nature Reserve.



**Photograph 2** *Microcorys lenticularis*.



**Photograph 3** Site of the new population of *Microcorys lenticularis* in the Tarin Rock Nature Reserve.



**Photograph 4** *Calectasia pignattiana* Tarin Rock Nature Reserve

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Rinzia affinis* Trudgen

CALM POPULATION No.: \_\_\_\_\_

DRF  Priority Species: P2 Partial Survey  Full Survey  New Population

FROM: Anne Rick TITLE: Botanical Consultant

SURVEY DATE: 12/10/2005

REGION: Wheatbelt

DISTRICT: Katanning

SHIRE: Dumbleyung Shire

LOCATION Location: 250ms west of the eastern boundary of Duggan water Reserve along the track running on the south side of the railway line. Reserve No: \_\_\_\_\_

LATITUDE: 33° 08' 03.0"S

LONGITUDE: 118° 10' 19.5"E Map Used: \_\_\_\_\_

G.P.S. USED:  DATUM (GPS/MAP): WGS84  AGD84  GDA94  GDA94-Compatible

LAND STATUS: Nature Reserve  Private  Gravel Res. MRD  Rail Reserve   
National Park  Pastoral Lease  Gravel Res. Shire  Rd. Verge Shire   
State Forest  VCL  Other Shire Reserve  Rd. Verge MRD   
Water Reserve  Other  Specify: \_\_\_\_\_ SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM: Hilltop  Cliff  Slope  Valley  Swamp   
Outcrop  Breakaway  Low Plain  Gully  Riverbank   
Ridge  Sand Dune  Flat  Drainageline  Lake Edge   
Firebreak  Other  Specify: Flat terrain.

ROCK TYPE: Laterite  Granite  Dolerite  Limestone  Other: \_\_\_\_\_

ROCK FORM: Sheet  Boulder  Fluvatile Gravel  Concretionary Gravel

SOIL TYPE: Sand  Loam  Clay  Peat  Gravel

SOIL COLOUR: Red  Brown  Yellow  White  Grey

SOIL CONDITION: Moist  Inundated  Dry  Saline  Other: Sandy soils over laterite.

VEGETATION CLASSIFICATION (Muir's): Open Shrub Mallee over Open Scrub over Low Heath D

ASSOCIATED SPECIES: *Eucalyptus uncinata*, *Eucalyptus falcata*, *Leptospermum sp*, *Hakea pandanocarpa ssp crassifolia*, *Grevillea cagiana*, *Leptospermum spinescens*, *Dryandra vestita*, *Melaleuca ?societatis*, *Kunzea sp*, *Beaufortia micrantha*, *Baeckea sp*, *Dampiera juncea*, *Caustis dioica*, *Hibbertia sp*, *Verticordia acerosa ssp preissii*, *Calytrix leschenaultii*, *Comesperma scoparium*, *Desmodadus sp*, *Neurachne alopecuroidea*.

No. of PLANTS: Mature: 31 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~2 ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION: Healthy  Moderate  Poor  Disturbed  Comment: \_\_\_\_\_

POTENTIAL THREATS: Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds   
Salinity  Disease  Prescribed Burning  Other  Comment: Track maintenance work may endanger plants close to the track.

FIRE HISTORY: Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

FENCING: Not Required  Fenced  Required  Replace/Repair

ROADSIDE MARKERS: Not Required  Present  Required  Replace  Reposition

OTHER COMMENTS (include action taken/required):

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  AC 4991

ATTACHED: Map  Mudmap  Illustration  Photo  Field Notes

COPY SENT TO: Regional Office  District Office  Other  Specify: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: 19/12/2005



**Photograph 1** *Rinzia affinis* in Duggan Water Reserve.



**Photograph 2** *Rinzia affinis* and associated vegetation at site 5.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT  
RARE FLORA REPORT FORM



TAXON: *Rinzia affinis* Trudgen CALM POPULATION No.: \_\_\_\_\_

DRF  Priority Species: P2 Partial Survey  Full Survey  New Population

FROM: Anne Rick TITLE: Consultant Botanist SURVEY DATE: 1/11/2005

REGION: Wheatbelt DISTRICT: Katanning SHIRE: Dumbleyung

LOCATION: Adjacent to the Lake Grace – Dumbleyung Rd. 850 ms East of Hills Rd. both sides of the road. Population extends for 550ms. Tarin Rock Nature Reserve. Plants both sides of road on verge and in the disturbed areas adjacent south eg old fire break / track

Reserve No: A 25711

LATITUDE: 33° 06' 25.9"S LONGITUDE: 118° 11' 58.0"E Map Used: \_\_\_\_\_

G.P.S. USED:  DATUM (GPS/MAP): WGS84  AGD84  GDA94  GDA94-Compatible

LAND STATUS: Nature Reserve  Private  Gravel Res. MRD  Rail Reserve   
National Park  Pastoral Lease  Gravel Res. Shire  Rd. Verge Shire   
State Forest  VCL  Other Shire Reserve  Rd. Verge MRD   
Water Reserve  Other  Specify: \_\_\_\_\_ SLK \_\_\_\_\_ to \_\_\_\_\_

LANDFORM: Hilltop  Cliff  Slope  Valley  Swamp   
Outcrop  Breakaway  Low Plain  Gully  Riverbank   
Ridge  Sand Dune  Flat  Drainageline  Lake Edge   
Firebreak  Other  Specify: Gentle slope

ROCK TYPE: Laterite  Granite  Dolerite  Limestone  Other: \_\_\_\_\_

ROCK FORM: Sheet  Boulder  Fluvialite Gravel  Concretionary Gravel

SOIL TYPE: Sand  Loam  Clay  Peat  Gravel

SOIL COLOUR: Red  Brown  Yellow  White  Grey

SOIL CONDITION: Moist  Inundated  Dry  Other: Sandy loam with gravel over ironstone

VEGETATION CLASSIFICATION (Muir's): Open Scrub over Low heath C over Dwarf Scrub D (scattered shrub mallee)

ASSOCIATED SPECIES: *Eucalyptus albida*, *Grevillea cagiana*, *Hakea pandanocarpa ssp crassifolia*, *Hakea?cygna*, *Banksia baueri*, *Hakea brownii*, *Allocasuarina pinaster*, *Beaufortia incana*, *Isopogon gardneri*, *Isopogon teretifolius*, *Allocasuarina humilis*, *Dryandra ferruginea*, *Caustis dioica*, *Lachnostachys ?bracteosa*, *Petrophile phylcooides*, *Banksia sphaerocarpa*, *Dryandra erthrocephala*, *Dryandra vestita*, *Dampiera juncea*, *Xanthorrea nana*, *Beaufortia micrantha*, *Hibbertia ?pungens*, *Chloanthes coccinea*, *Verticordia picta*, *Daviesia uniflora*, *Verticordia roei*, *Verticordia chrysantha*, *Lechenaultia biloba*, *Boronia capitata*, *Jacksonia sp*, *Synaphea sp*

No. of PLANTS: Mature: 47 Seedlings: \_\_\_\_\_ Dead: \_\_\_\_\_ Actual  Estimate  Area Occupied: ~ 2ha

REPRODUCTIVE STATE: Clonal  Flower bud  Flower  Immat. fruit  Fruit  Old Fruit  Vegetative

POLLINATORS: Native bees  Honey bees  Other insects  Birds  Mammals

Other observations: \_\_\_\_\_

CONDITION OF POPULATION: Healthy  Moderate  Poor  Disturbed  Comment: \_\_\_\_\_

POTENTIAL THREATS: Firebreaks  Mining  Recreation  Roadworks  Grazing  Weeds   
Salinity  Disease  Prescribed Burning  Other  Comment: Frequent slashing or grading of the road verge

FIRE HISTORY: Not known  Burnt in 19\_\_\_\_ Summer  Autumn  Winter  Spring

FENCING: Not Required  Fenced  Required  Replace/Repair

ROADSIDE MARKERS: Not Required  Present  Required  Replace  Reposition

OTHER COMMENTS (include action taken/required): Same site as *Boronia penicillata* AC5030. This species has also been collected by the Lakes District Rare Flora Volunteers

Tarin Rock railway line, 1 km W of wheatbin E. Bishop 130, 14 October 2002 - population already recorded.

Tarin Rock. Near Tower (Air Navigation Facility), 3.7 km W of Hills Rd. E. Bishop 137, 14 October 2002.

Part of the road verge has rare flora markers due to the presence of *Dryandra foliosissima*. *Daviesia tortuosa* AC 5052 and *Dryandra fasciculata* AC 5033 were also collected from this site.

VOUCHER SPECIMEN: Regional Herb.  District Herb.  WA Herb.  Other  AC 5030

ATTACHED: Map  Mudmap  Illustration  Photo  Field Notes

COPY SENT TO: Regional Office  District Office  Other  Specify: \_\_\_\_\_



**Photograph 1** *Rinzia affinis* Tarin Rock Nature Reserve



**Photograph 2** Road verge with *Boronia penicillata*, *Rinzia affinis* and *Daviesia tortuosa* .  
Tarin Rock Nature Reserve



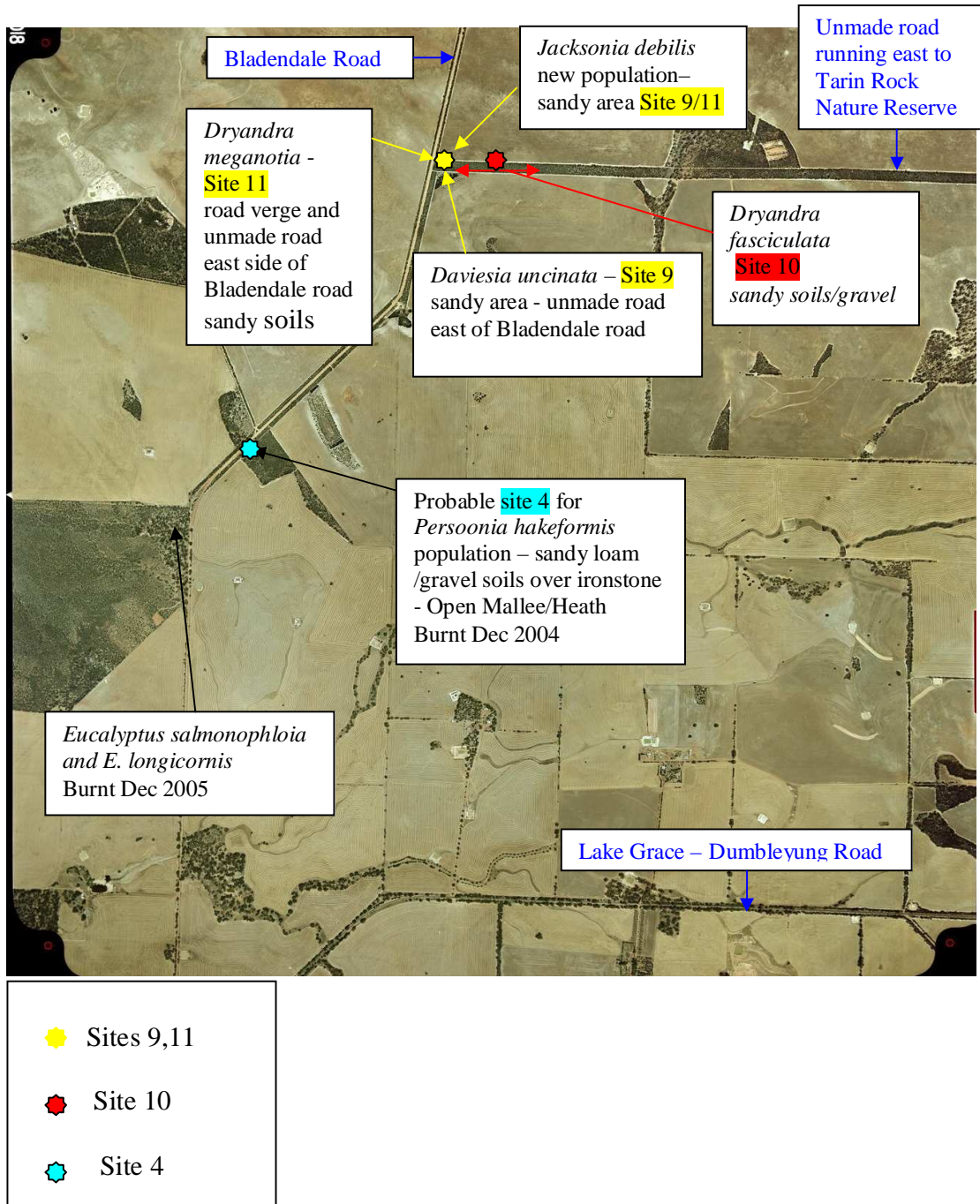


**Photograph 3** Vegetation adjacent to the road verge. Tarin Rock Nature Reserve. *Boronia penicillata*, *Dryandra fasciculata*, *Daviesia tortuosa* and *Rinzia affinis* site.

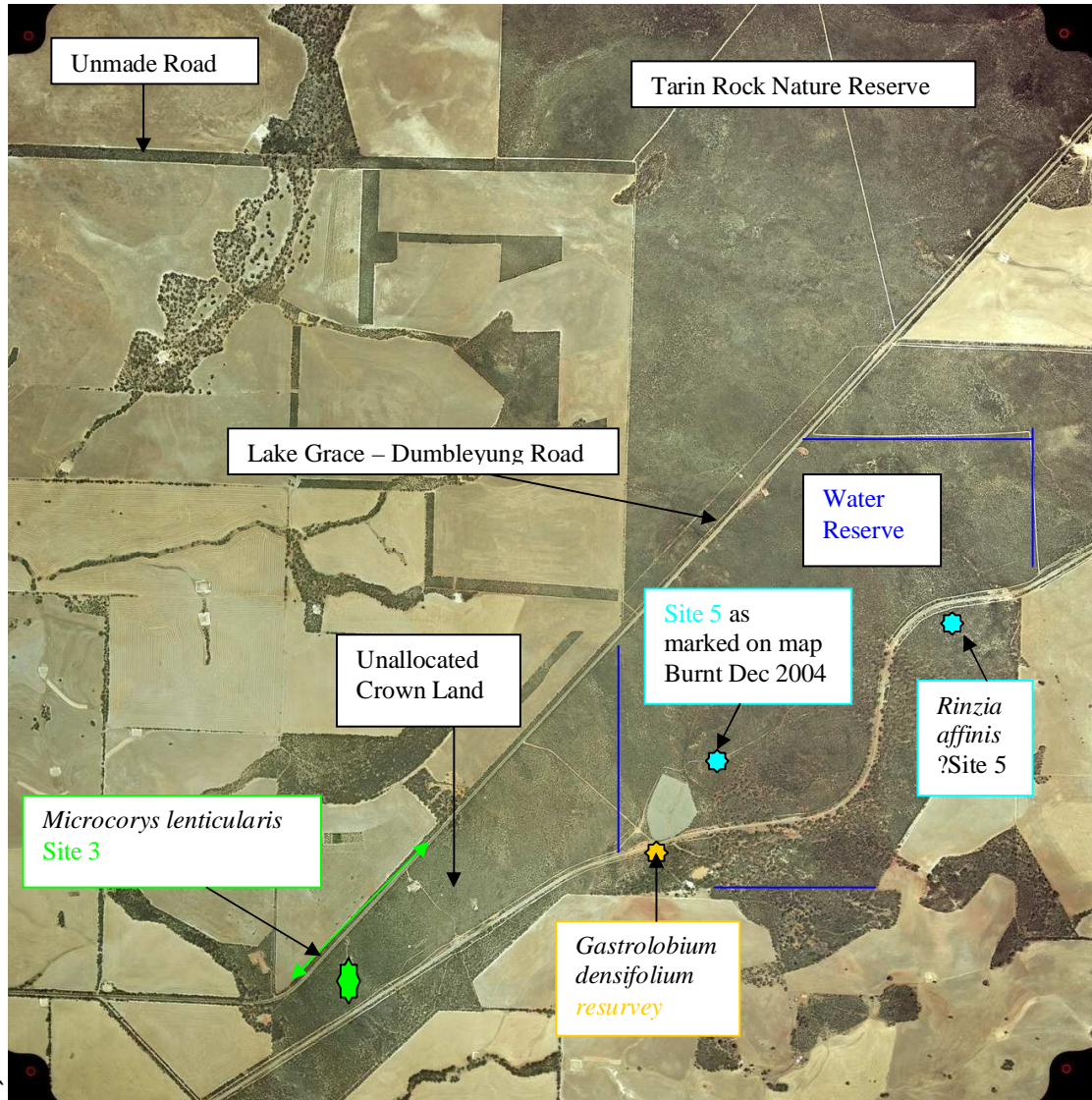
**Figure 2** Location of Priority Flora near Tarin Rock Road.



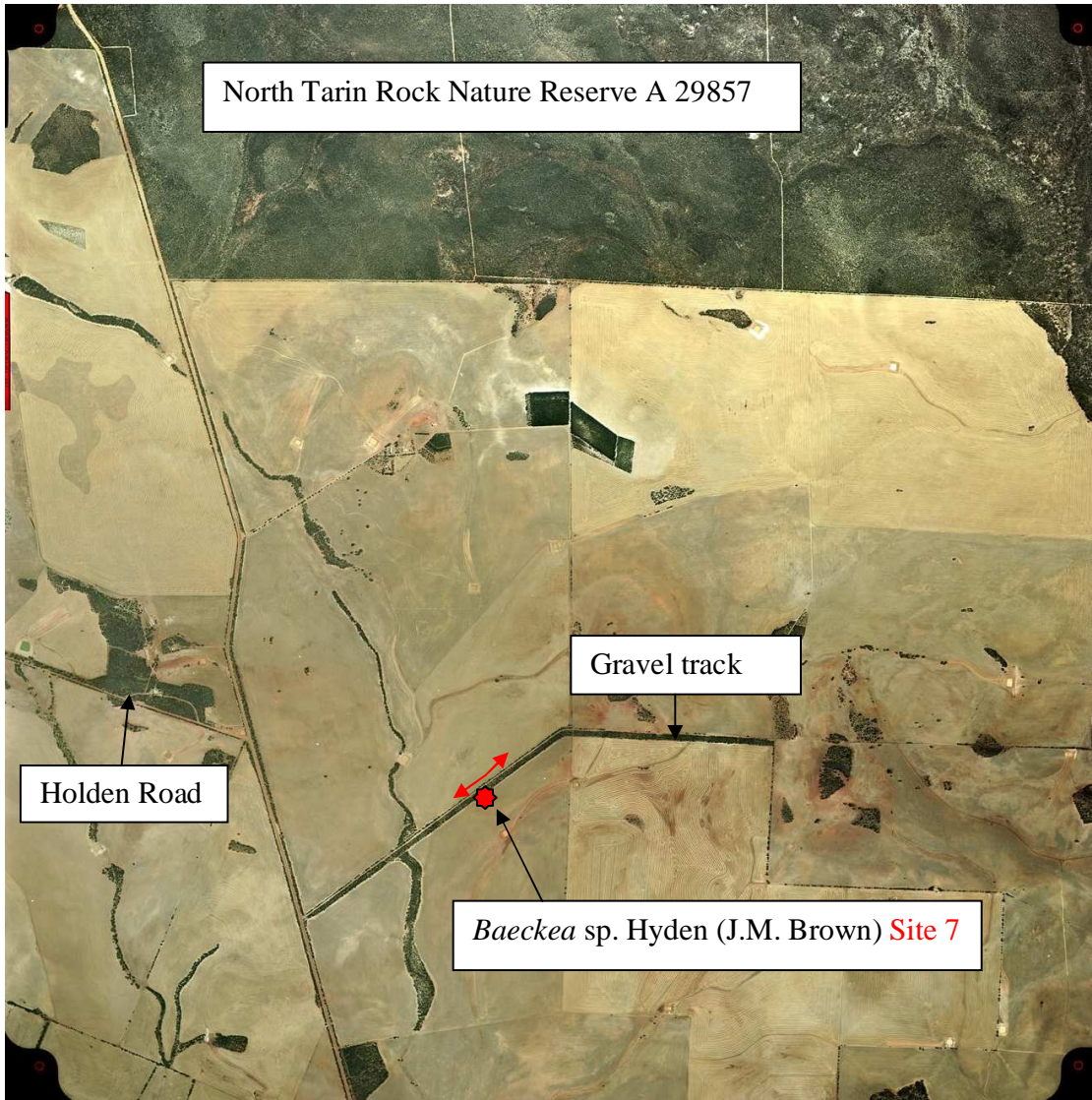
**Figure 3** Location of Priority Flora near Bladendale Road.



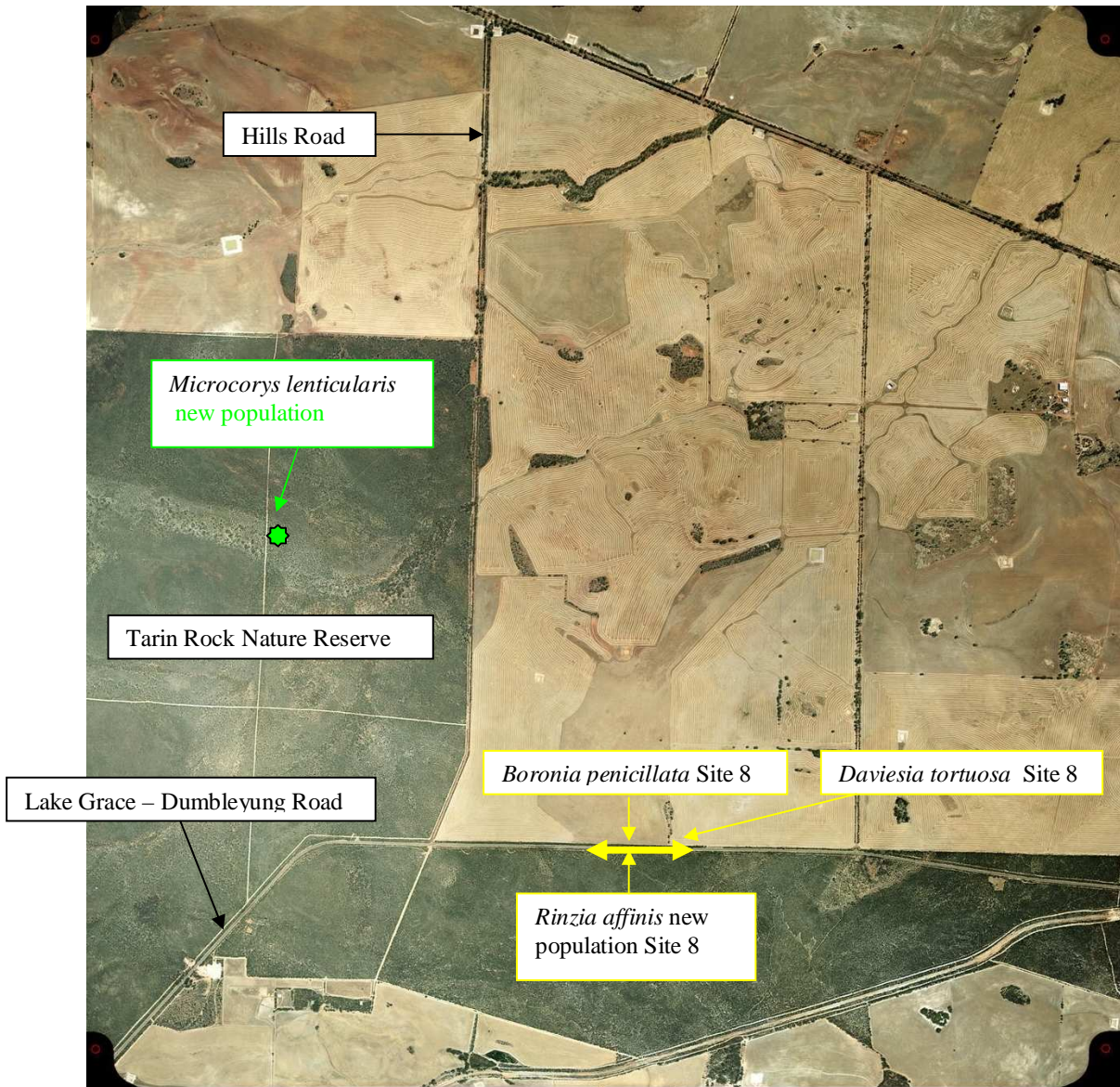
**Figure 4** Location of Priority Flora in the Water Reserve and adjacent Unallocated Crown Land.



**Figure 5** Location of Priority Flora near North Tarin Rock Road.



**Figure 6** Location of Priority Flora in Tarin Rock Nature Reserve.



**Figure 7** Vegetation Map of Remnant Vegetation on Williams Location 15205.

