

Nature Reserve (R19741) Environmental Assessment 2019



Prepared for: Department of Biodiversity, Conservation and Attractions
(DBCA)
Perth Hills District
District Nature Conservation Program

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EXECUTIVE SUMMARY

This report has been prepared by Del Botanics on behalf of Department of Biodiversity, Conservation and Attractions (DBCA) to review remnant flora, fauna and vegetation on Nature Reserve (R19741). A site survey was undertaken in November 2019 and March 2020. The site is approximately 113 kilometres south east of the Perth central area, in the Shire of Brookton.

Nature Reserve (R19741) consists of approximately 44.95 hectares of Wandoo (*Eucalyptus wandoo*) Powderbark (*Eucalyptus accedens*), *Eucalyptus astringens* subsp. *astringens* and Sheoak (*Allocasuarina huegeliana*) Woodland. The purpose of this reserve is to conserve the flora and fauna.

The soils found in Nature Reserve (R19741) can be referred to as the *Zone of Rejuvenated Drainage*. This zone is defined by the Meckering Line to the east and the Darling Range Zone to the west. It encompasses a major portion of the Shire of Beverley and about a third of the Shire of Brookton. It represents the 'Inner Wheatbelt' and the central portion of the Avon Valley.

A large portion of the vegetation within Nature Reserve (R19741) is in “Very Good” condition and provides a great example of the variety of vegetation communities which dominated the area prior to European settlement. During the site visits, vegetation communities were broadly mapped and described by recording the dominant tree species and upper level flora species. The vegetation described on site can be categorised into four broad vegetation communities.

Nature Reserve (R19741) is a conservation reserve for the protection of the flora and fauna. The reserve is currently in predominantly Very Good condition and provides a valuable habitat for fauna with diverse habitats and an array of flora species.

STATEMENT OF LIMITATIONS

This environmental report has been prepared in accordance with the scope of services set out in the original quotation. In preparing the report, Del Botanics has relied on data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations, most of which are referred to in the report. Del Botanics has not verified the accuracy or completeness of the data to the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report are based in whole or in part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Del Botanics will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, unavailable, misrepresented or otherwise not fully disclosed.

In accordance with the scope of services, Del Botanics has have relied on publically available data and information supplied by DBCA and have conducted environmental field monitoring in the preparation of the report. The nature and extent of monitoring conducted is described in the report. Within the limitations imposed by the scope of services, the monitoring and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care. No other warranty, express or implied, is made.

The report has been prepared for the benefit of the Client and for no other party. Del Botanics assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report. Other parties should not rely upon the report or the accuracy or completeness of any conclusions, and should make their own enquiries and obtain independent advice in relation to such matters.

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TABLE OF CONTENTS

	PAGE
EXECUTIVE SUMMARY	II
1. INTRODUCTION	1
1.1 NATURE RESERVE (R19471).....	1
1.2 HISTORY	2
2. EXISTING ENVIRONMENT.....	4
2.1 SOILS AND LANDFORMS.....	4
2.1.1 Localised soils.....	4
2.2 VEGETATION.....	4
2.3 CLIMATE.....	6
3. FLORA, FAUNA AND VEGETATION	7
3.1 FLORA.....	7
3.1.1 Threatened flora	8
3.1.2 Weeds.....	10
3.2 FAUNA	11
3.2.1 Threatened Fauna.....	12
3.2.2 Feral Animals	13
3.3 VEGETATION.....	13
3.3.1 Vegetation Complexes.....	13
3.3.2 Vegetation complexes found within Nature Reserve (R19741)	15
3.3.3 Local Vegetation Communities	15
3.3.4 Threatened Ecological Communities	18
3.3.5 Vegetation Condition	19
4. TRACK CONDITIONS, SIGNAGE AND ILLEGAL ACTIVITY.....	20
4.1 TRACKS AND FIREBREAKS CONDITION	20
4.2 FENCING	21
4.3 SIGNAGE	21
4.4 ILLEGAL ACTIVITY	21
5. FIRE.....	23
6. POTENTIAL THREATS.....	24
7. CONCLUSION AND RECOMMENDATIONS	25
8. REFERENCES	28

TABLES

Table 1	DBCA NatureMap Flora search results
Table 2	DEE Protected Matters Flora search results
Table 3	DBCA NatureMap Fauna search results
Table 4	DEE Protected Matters Fauna search results
Table 5	Local Vegetation Communities
Table 6	DEE Protected Matters TEC search results
Table 7	Vegetation Condition Scale

FIGURES

Figure 1	Site Location
Figure 2	Nature Reserve (R19471)
Figure 3	Nature Reserve (R19471), Vegetation Complexes
Figure 4	Local Vegetation Communities within the reserve
Figure 5	Local Vegetation Conditions within the reserve

GRAPHS

Graph 1	Brookton yearly weather data
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APPENDICES

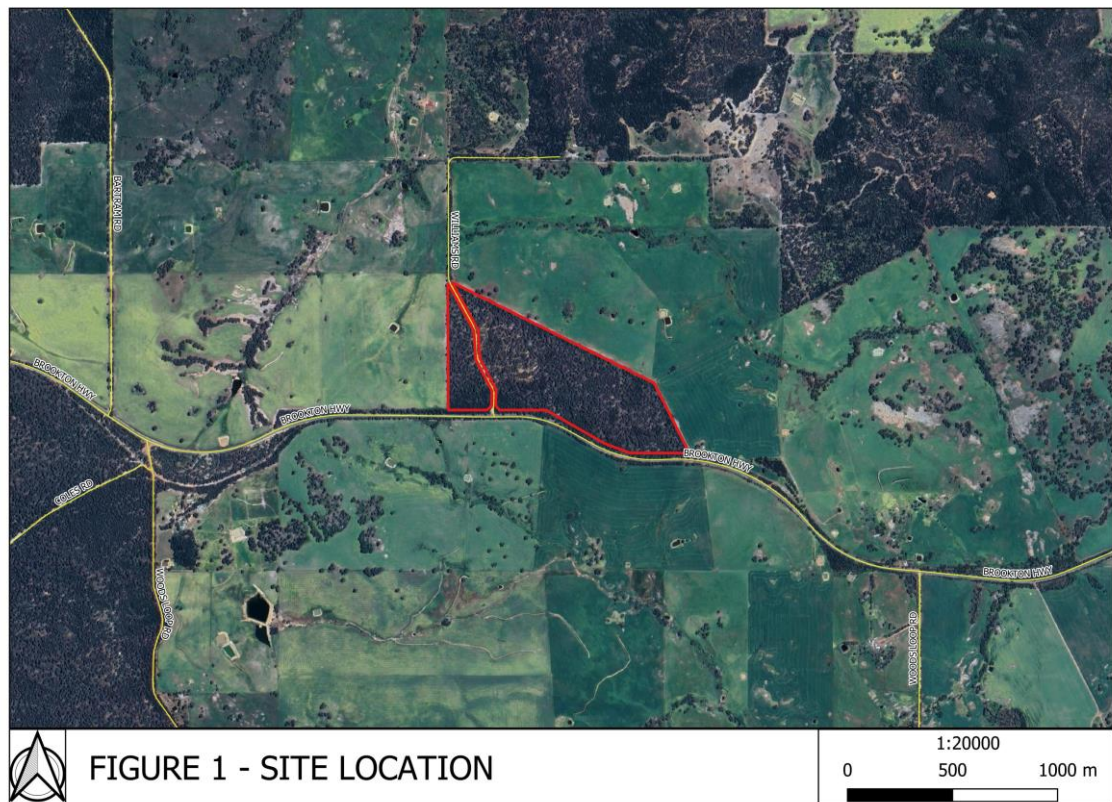
Appendix A	Flora Species Recorded
Appendix B	Fauna Species Recorded

1. INTRODUCTION

1.1 NATURE RESERVE (R19471)

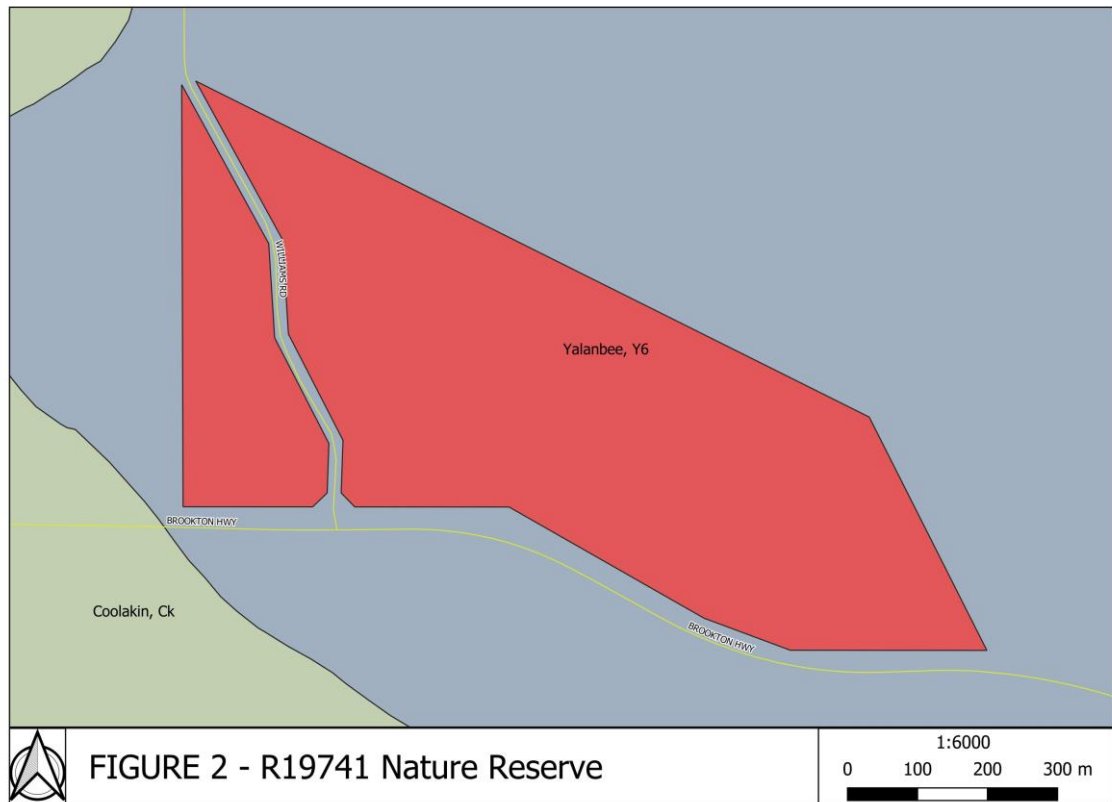
This report has been prepared by Del Botanics on behalf of Department of Biodiversity, Conservation and Attractions (DBCA) to review remnant flora, fauna and vegetation on Nature Reserve (R19471). A site survey was undertaken in November 2019 and March 2020. The site is approximately 113 kilometres south east of the Perth central area, in the Shire of Brookton. The location of the site is shown on **Figure 1** below.

Figure 1: Nature Reserve (R19471) Location



The Shire of Brookton covers an area of 161,283 hectares and is located in the Avon River Catchment. The Avon River flows through the eastern part of the shire. Nature Reserve (R19471) is approximately 24km west of the Brookton town site and is shown in red on **Figure 2** below. The purpose of this reserve is for the conservation of flora and fauna.

Figure 2: Brookton Highway Nature Reserve



Nature Reserve (R19471) is approximately 44.95 hectares of Wandoo (*Eucalyptus wandoo*) Powderbark (*Eucalyptus accedens*), *Eucalyptus astringens* subsp. *astringens* and Sheoak (*Allocasuarina huegeliana*) Woodland Vegetation Communities.

1.2 HISTORY

The first European farmers settled in the Avon Valley in 1831 and established themselves as pastoralists, grazing sheep on native herbage and cropping small areas of the better soil types. In 1880 the railway came to the Avon Valley and large advances to agriculture were made in the early 1900's.

Native vegetation in the Shire of Brookton has been significantly cleared for agricultural purposes. The district was first settled in the mid 1800's and the best country for agriculture, the woodlands on heavy soils in the valleys were cleared by hand.

Much of the sandplain areas were cleared post 1950's with bulldozers. Remnant vegetation areas were often cleared in the early days as they were seen to harbour rabbits. The remaining areas of native vegetation are mostly the areas unsuitable for agriculture, such as granite outcrops, breakaway country and saline areas. Woodland and sandplain country are very poorly represented in reserves and much of the woodlands that do remain on private land have been degraded by grazing, weed invasion and inappropriate fire regimes (Safstrom, 1997).



Photo 1: Nature Reserve (R19471)

2. EXISTING ENVIRONMENT

2.1 SOILS AND LANDFORMS

The Brookton Shire is underlain by Archaean rocks of the Yilgarn Block which has been a relatively stable part of the earth's crust for 2400 million years. The Great Plateau of Western Australia, referred to locally as the Darling Plateau, is the surface expression of the Yilgarn Block. The ancient 'basement' rocks of the Darling Plateau are composed of predominantly granite and metamorphics with localised intrusions of narrow quartz or dolerite dykes. (Beecham, 2001).

The surface of the Darling Plateau was once extensively mantled by Tertiary (Cainozoic) laterite and associated weathering products. Although the plateau is now substantially dissected by major drainage systems, remnants of the lateritised surface occur in upper parts of the landscape and along drainage divides.

2.1.1 Localised soils

The soils found in Nature Reserve (R19471) can be referred to as the *Zone of Rejuvenated Drainage*. This zone is defined by the Meckering Line to the east and the Darling Range Zone to the west. It encompasses the major portion of the Shire of Beverley and about a third of the Shire of Brookton. It represents the 'Inner Wheatbelt' and the central portion of the Avon Valley. The Zone of Rejuvenated Drainage is characterised by a greater degree of dissection of the landscape than in the Zone of Ancient Drainage to the east. Thus steeper, narrower valleys are formed which contain rivers and creeks that flow every winter. Large areas of yellow duplex soils have formed here from the dissection of the lateritic profile. In areas where the lateritic profile has been completely removed there are extensive areas of rocky, red and greyish soils developed from fresh rock. The valley floors contain alluvial clays, loams and sands (Beecham, 2001).

2.2 VEGETATION

A large portion of the vegetation within Nature Reserve (R19471) is in very good condition and provides a great example of the variety of vegetation communities which dominated the area prior to European settlement. The vegetation is dominated with *Eucalyptus astringens* subsp *astringens*, with transitions into Wandoo (*Eucalyptus wandoo*) and Powderbark (*Eucalyptus accedens*), and pockets of Sheoak (*Allocasuarina huegeliana*) Woodland, found predominately along the road verges.

The southwest of Western Australia has been divided into districts, known as Natural Resource Zones, which are determined by their vegetation type, drainage/catchment system and rainfall. The Shire of Brookton contains parts of two Natural Resource Zones, the Swan/Avon catchment zone, which includes the Northern Jarrah Forrest and the Wheatbelt Vegetation District zone, which includes the Darling and Avon Districts.



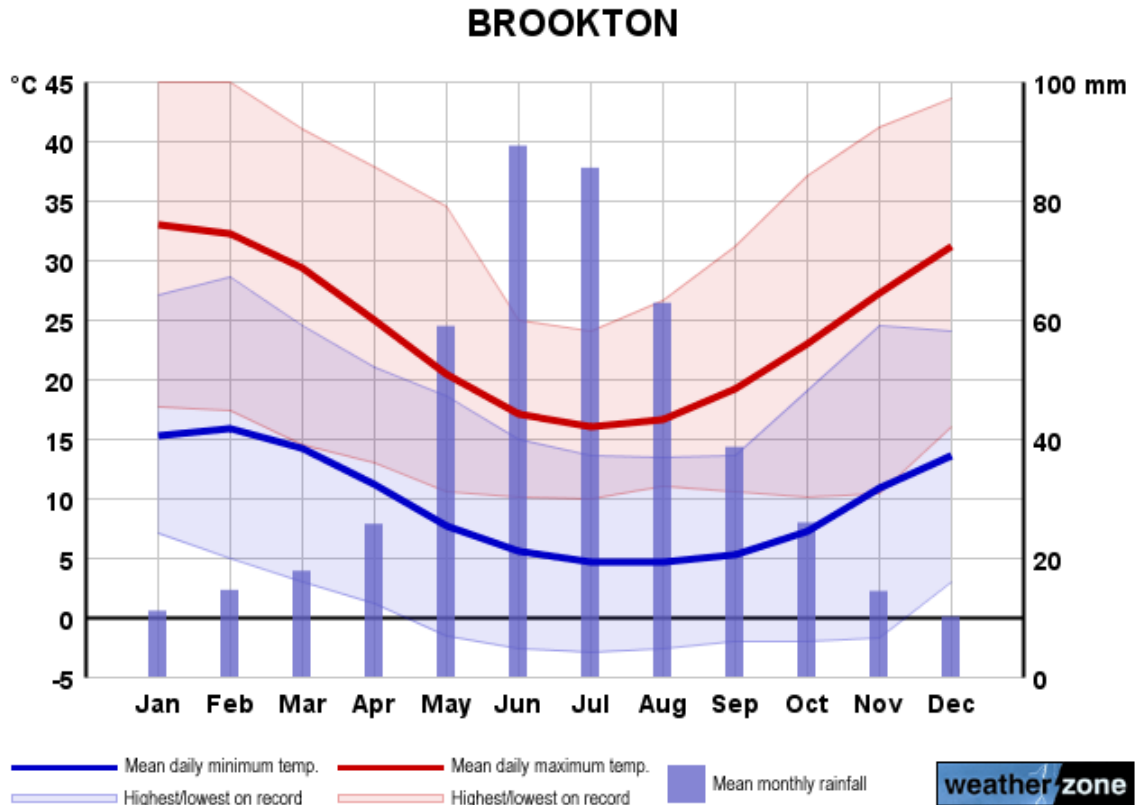
Photo 2: Eucalyptus Woodland with sparse understorey



Photo 3: Wandoo (*Eucalyptus wandoo*) Woodland

2.3 CLIMATE

The Shire’s climate consists of a warm Mediterranean climate with hot dry summers and mild wet winters. Brookton receives, on average 430mm rainfall per annum. Average maximum temperatures range from 30°C in January and 17.1°C in July, while average minimum temperatures range from 16.1°C in February to 4.6°C in August.



Graph 1: Brookton yearly weather data

3. FLORA, FAUNA AND VEGETATION

The survey area lies in the Drummond Botanical Subdistrict within the Southwest Botanical Province as described by Beard (1990). Flora composition has been described by Beard (1990) as predominantly consisting of *Banksia* Low Woodlands on leached sands with *Melaleuca* swamps where ill drained and Woodlands of *Eucalyptus* spp. on less leached soils. This area has been described by Beard (1990) as the Avon Botanical District.

The updated mapping system IBRA (*Interim Biogeographic Regionalisation for Australia*) was developed in 1993-94 and is endorsed by all levels of government as a key tool for identifying land for conservation under *Australia's Strategy for the National Reserve System 2009-2030*.

The nationally agreed regionalisation was published in Thackway and Cresswell (1995), *An Interim Biogeographic Regionalisation for Australia: a framework for establishing the national system of reserves*.

The latest version, IBRA7, classifies Australia's landscapes into 89 large geographically distinct bioregions based on common climate, geology, landform, native vegetation and species information. The IBRA description of vegetation for this area is best categorised as the Avon Wheatbelt Region.

3.1 FLORA

The site is dominated by Wandoo (*Eucalyptus wandoo*) Powderbark (*Eucalyptus accedens*), *Eucalyptus astringens* subsp. *astringens* and pockets of Sheoak (*Allocasuarina huegeliana*) Woodland. There is a low diversity and density of understorey species and low densities and diversity of weed species, which are predominantly along the fence line boundaries of the site. A species list is available in **Appendix A**, this provides a list of flora species identified during the field survey and those recorded as occurring on the site from the DBCA NatureMap search results.



Photo 4: *Ptilotus manglesii* (Pom Poms) Flowers



Photo 5: *Dianella revoluta* flower

3.1.1 Threatened flora

A search of the Department of Biodiversity, Conservation and Attractions (DBCA) NatureMap database identified six Threatened (T), one Priority 1 (P1), six Priority 2 (P2), nine Priority 3 (P3) and ten Priority 4 (P4) species within a 10 km radius, that are likely to occur within the area. These species are listed in **Table 1** below.

Table 1: NatureMap listed flora species

Species	Common Name	Priority
<i>Eleocharis keigheryi</i>		T
<i>Hakea aculeata</i>	Column Hakea	T
<i>Lasiopetalum rotundifolium</i>		T
<i>Pultenaea pauciflora</i>	Narrogin Pea	T
<i>Tetrateca similis</i>		T
<i>Thomasia montana</i>	Hill Thomasia	T
<i>Eremaea violacea</i> subsp. Dobaderry Swamp		P1
<i>Chamelaucium</i> sp. Dryandra		P2
<i>Darwinia</i> sp. Westdale		P2
<i>Grevillea crowleyae</i>		P2
<i>Haloragis aculeolata</i>		P2
<i>Lechenaultia laricina</i>	Scarlet Leschenaultia	P2
<i>Synaphea boyaginensis</i>		P2
<i>Acacia adjutrices</i>		P3
<i>Acacia horridula</i>		P3
<i>Brachyloma mogin</i>		P3
<i>Brachyloma mogin</i>		P3
<i>Hibbertia glomerata</i> subsp. wandoo		P3
<i>Lasiopetalum caroliae</i>		P3
<i>Persoonia hakeiformis</i>		P3
<i>Petrophile filifolia</i> subsp. <i>laxa</i>		P3
<i>Synaphea pandurata</i>		P3
<i>Banksia cynaroides</i>		P4
<i>Darwinia</i> sp. Dryandra		P4
<i>Darwinia thymoides</i> subsp. St Ronans		P4
<i>Eucalyptus caesia</i> subsp. <i>caesia</i>	Caesia	P4
<i>Eucalyptus exilis</i>	Boyagin Mallee	P4
<i>Gastrolobium ovalifolium</i>	Runner Poison	P4
<i>Hibbertia montana</i>		P4
<i>Xanthosia tomentosa</i>	Lesueur Southern Cross	P4
<i>Acacia alata</i> var. <i>platyptera</i>		P4
<i>Acacia cuneifolia</i>		P4

A search of the Department of Environment and Energy (DEE) Protected Matters database identified nine flora species of significance within a 10 km radius, which are likely to occur within the area. Five flora species have been listed as Vulnerable and four species are listed as Endangered. These species are listed in **Table 2** below.

Table 2: DEE Protected Matters listed flora species

Species Name	Common Name	Conservation Code
<i>Acacia cochlocarpa</i> subsp. <i>cochlocarpa</i>	Spiral-fruited Wattle	Endangered
<i>Banksia oligantha</i>	Wagin Banksia	Endangered
<i>Boronia capitata</i> subsp. <i>capitata</i>		Endangered
<i>Diuris micrantha</i>	Dwarf Bee-orchid	Vulnerable
<i>Eleocharis keigheryi</i>	Keighery's Eleocharis	Vulnerable
<i>Pultenaea pauciflora</i>	Narrogin Pea	Vulnerable
<i>Thelymitra dedmaniarum</i>	Cinnamon Sun Orchid	Endangered
<i>Thomasia montana</i>	Hill Thomasia	Vulnerable
<i>Verticordia fimbrialepis</i> subsp. <i>fimbrialepis</i>	Shy Featherflower	Endangered

3.1.2 Weeds

Invasive plants are widespread in fragmented landscapes that have been highly modified, and where nutrient enrichment of soils and frequent disturbance encourages the establishment of weeds over native vegetation. Established weeds compete with native plants, affecting their recruitment and survival, therefore reducing the habitat quality for native fauna. Grassy weeds can also increase the flammability of the vegetation, increasing fire frequency and intensity. Once established, weeds become a long-term and potentially costly management issue.

There are a moderate number of weed species and densities on average across the site. Weeds are dominant along the edges of the reserve, adjacent to roads and private properties. Weed control may be applied to the areas along the boundary fence lines and roads, however due to the adjacent farming properties weeds may continue to present an issue along the fence lines. It is important to minimise the encroachment of weeds into bushland areas. The majority of the dominant weeds are grasses.



Photo 6: Grass weeds throughout the site

3.2 FAUNA

Due to the location of the reserve and the reduced areas of other natural bushland in the area, this reserve is an important stepping stone of native vegetation in this landscape. This reserve is relatively small in comparison to nearby reserves and has limited understorey for habitat. A species list is available in **Appendix B**, this provides a list of fauna species identified during the field survey and those recorded as occurring on the site from the DBCA NatureMap search results.



Photo 7: Tree hollows

3.2.1 Threatened Fauna

A search of the Department of Biodiversity, Conservation and Attractions (DBCA) NatureMap database identified seventeen priority species within a 10 km radius, which are likely to occur within the area. Of these, eleven are listed as Threatened (T) two are listed as Specially Protected species and four as Priority 4 (P4) species. The list is provided in **Table 3** below.

Table 3: NatureMap listed fauna species

Species	Common Name	Priority
<i>Bettongia penicillata</i> subsp. <i>ogilbyi</i>	Woylie, Brush-tailed Bettong	T
<i>Calyptorhynchus banksii</i> subsp. <i>naso</i>	Forest Red-tailed Black Cockatoo	T
<i>Calyptorhynchus baudinii</i>	Baudin's Cockatoo, White-tailed Long-billed Black Cockatoo	T
<i>Calyptorhynchus latirostris</i>	Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo	T
<i>Calyptorhynchus</i> sp.	white-tailed black cockatoo	T
<i>Dasyurus geoffroii</i>	Chuditch, Western Quoll	T
<i>Idiosoma nigrum</i>	Shield-backed Trapdoor Spider	T
<i>Leipoa ocellata</i>	Malleefowl	T
<i>Macrotis lagotis</i>	Bilby, Dalgyte, Ninu	T
<i>Myrmecobius fasciatus</i>	Numbat, Walpurti	T
<i>Westralunio carteri</i>	Carter's Freshwater Mussel	T
<i>Falco peregrinus</i>	Peregrine Falcon	S
<i>Phascogale calura</i>	Red-tailed Phascogale, Kenngoor	S
<i>Hydromys chrysogaster</i>	Water-rat, Rakali	P4
<i>Notamacropus eugenii</i> subsp. <i>derbianus</i>	Tammar Wallaby, Tammar	P4
<i>Notamacropus irma</i>	Western Brush Wallaby	P4
<i>Platycercus icterotis</i> subsp. <i>Xanthogenys</i>	Western Rosella	P4

A search of the Department of Environment and Energy (DEE) Protected Matters database identified eight fauna species of significance likely to occur within a 10km radius of the reserve. One fauna species is listed as Critically Endangered, two species have been listed as Endangered and five species are listed as Vulnerable. These species are listed in **Table 4** below.

Table 4: DEE Protected Matters listed fauna species

Species Name	Common Name	Conservation Code
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically Endangered
<i>Calyptorhynchus banksii naso</i>	Forest Red-tailed Black-Cockatoo, Karrak	Vulnerable
<i>Calyptorhynchus baudinii</i>	Baudin's Black-Cockatoo, Long-billed Black-Cockatoo	Vulnerable
<i>Calyptorhynchus latirostris</i>	Carnaby's Black-Cockatoo, Short-billed Black-Cockatoo	Endangered
<i>Dasyurus geoffroii</i>	Chuditch, Western Quoll	Vulnerable
<i>Leipoa ocellata</i>	Malleefowl	Vulnerable
<i>Phascogale calura</i>	Red-tailed Phascogale, Red-tailed Wambenger, Kenngoor	Vulnerable
<i>Rostratula australis</i>	Australian Painted Snipe	Endangered

3.2.2 *Feral Animals*

Several species of invasive animals have established in the Wheatbelt region which have impacted upon native vegetation and fauna. Feral cats (*Felis catus*) and the European fox (*Vulpes vulpes*) are key predators that prey upon ground-dwelling native fauna. The European rabbit (*Oryctolagus cuniculus*) causes direct loss of plant species, and indirect loss of native plant and animal species through changes to soil structure and nutrient dynamics by their digging, burrowing and grazing activities. There was no direct evidence of these species occurring in this reserve, however it would be common for rabbits and foxes to be present.

3.3 VEGETATION

The original vegetation of the region has been mapped and described by Beard (1979, 1980). The major parts of the Shires of Beverley and Brookton fall into the Avon Botanical District, although a small area along the western boundary of both Shires is part of the Darling District (Dale Subdistrict).

The Shire of Brookton includes Jarrah Forrest on its western margin with a mix of cleared farming land and forested country with wandoo (*Eucalyptus wandoo*) and areas of Jarrah (*Eucalyptus marginata*) and Marri (*Corymbia calophylla*) towards the east of their range. (Safstrom, 1997). Nature Reserve (R19471) original vegetation (described by Beard (1979, 1980)) falls within the Northern Jarrah Forrest.

Jarrah and Marri Forest: The Jarrah and Marri forest occurs in the higher rainfall western areas on the lateritic plateau (Darling District). Jarrah (*Eucalyptus marginata*) is the dominant tree, and is normally accompanied by Marri (*Corymbia calophylla*). On some sites it will also be associated with Blackbutt (*E. patens*), Wandoo (*E. wandoo*) and Powderbark Wandoo (*E. accedens*). There is also often a lower layer of small trees, including *Banksia grandis*, *Allocasuarina fraseriana* and *Persoonia longifolia*.

Jarrah - Marri - Wandoo - Powderbark - Brown Mallet Woodlands: On the eastern edge of the lateritic plateau (Darling grading into Avon District), woodland replaces the Jarrah forest, due to the declining rainfall.

3.3.1 *Vegetation Complexes*

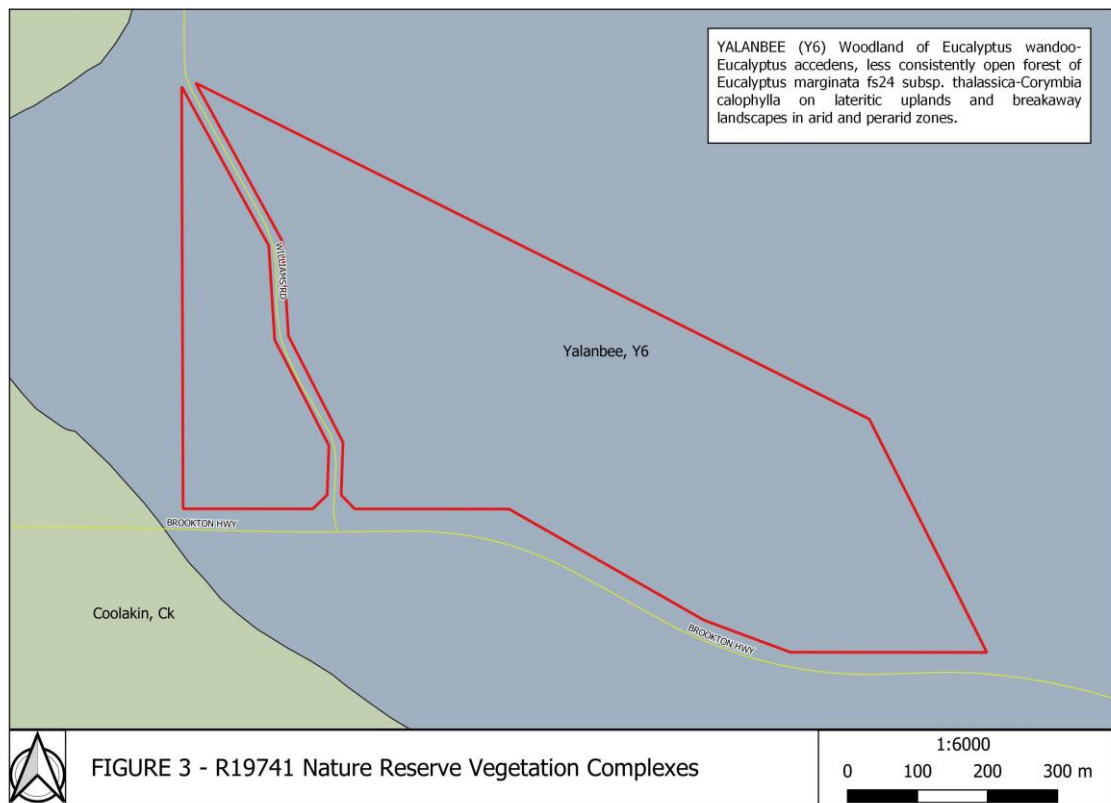
Vegetation complexes are based on the pattern of vegetation at a regional scale as they reflect the underlying key determining factors of landforms, soils and climate. The Perth and Peel Regions are spread over two IBRA regions, the Swan Coastal Plain and Jarrah Forest.

The Jarrah Forest IBRA region can be divided into two sub-regions, the Northern Jarrah Forest, and the Southern Jarrah Forest. The Perth and Peel Region extends only to the Northern Jarrah Forest IBRA sub-region.

The following inputs were used to create a data layer of remnant vegetation extent by vegetation complexes for the Swan Coastal Plain and the Jarrah Forest IBRA, including the Perth and Peel Region Scheme areas:

- DAFWA (2014) - Current extent of native vegetation (Remnant vegetation)
- Heddle et al (1980) - Vegetation of the Darling System, Department of Environment and Conservation (south of Moore River)
- Mattiske & Havel (2000) - Vegetation complex mapping for the South West Forest Region and for the Swan Coastal Plain in the Busselton area.

There are 27 vegetation complexes represented within the Swan Coastal Plain and 18 vegetation complexes represented within the Jarrah Forest portions of the Perth and Peel Scheme Regions. Native vegetation complexes occurring at Nature Reserve (R19741) are shown below on **Figure 3**:



3.3.2 Vegetation complexes found within Nature Reserve (R19741)

Yalanbee (Y6)

Woodland of *Eucalyptus wandoo-Eucalyptus accedens*, less consistently open forest of *Eucalyptus marginata* fs24 subsp. *thalassica-Corymbia calophylla* on lateritic uplands and breakaway landscapes in arid and perarid zones.

Nature Reserve (R19741) is consistent with the Yalanbee vegetation complex described as occurring in this area and displays characteristics of species associated with the Northern Jarrah Forrest vegetation community.

3.3.3 Local Vegetation Communities

During the site visits, vegetation communities were broadly mapped and described by recording the dominant tree species and upper level flora species. The vegetation described on site can be categorised into four broad vegetation communities. These communities are described in **Table 5** and shown on **Figure 5**.

Table 5: Vegetation Communities

Community Descriptions	
Vegetation Community 1 – Rock Sheoak (<i>Allocasuarina huegeliana</i>) Woodland	
1	Low woodland of <i>Allocasuarina huegeliana</i> over low open shrubland of <i>Acacia pulchella</i> and <i>Scaevola</i> sp. over very open grasslands
Community Descriptions	
Vegetation Community 2 – <i>Eucalyptus astrigens</i> subsp. <i>astrigens</i>	
2	Open forest of <i>Eucalyptus astrigens</i> subsp. <i>astrigens</i> over very open grasslands of <i>Neurachne alopecuroidea</i> and * <i>Avena barbata</i>
Community Descriptions	
Vegetation Community 3 – Powderbark Wandoo Woodland	
3	Open forest of <i>Eucalyptus accedens</i> and <i>Eucalyptus wandoo</i> , over open shrubland of <i>Persoonia quinquenervis</i> , <i>Tetraria ? octandra</i> and <i>Lepidosperma</i> sp.
Community Descriptions	
Vegetation Community 4 –Wandoo Woodland	
4	Open forest of <i>Eucalyptus accedens</i> and <i>Eucalyptus wandoo</i> , over open shrubland of <i>Acacia pulchella</i> , <i>Bossiaea eriocarpa</i> , <i>Scaevola</i> sp. and open grassland of <i>Austrostipa elegantissima</i>



Photo 8: Rock Sheoak (*Allocasuarina huegeliana*) Woodland



Photo 9: Wandoo Woodland



Photo 10: Powderbark Woodland



Photo 11: *Eucalyptus astrigens* subsp. *astringens* Woodland

3.3.4 *Threatened Ecological Communities*

The EPBC Act provides for the strong protection of TEC's, which are listed under section 181 of the Act and are described as 'Critically Endangered', 'Endangered' or 'Vulnerable' under section 182. Schedules of protected TECs maintained pursuant to the EPBC Act are based on the same Floristic Community Type's (FCT's) as adopted by DBCA, however not all TEC's listed by the DBCA are scheduled under the EPBC Act.

A DEE Protected Matters report indicated there is one known Threatened Ecological Community (TEC) likely to occur in the area, this is listed in **Table 6**.

Table 6: EPBC listed Threatened Ecological Communities

Threatened Ecological Community	Conservation Code	Comments
Eucalypt Woodlands of the Western Australian Wheatbelt	Critically Endangered	Community likely to occur in the area

After visiting the site, Del Botanics is of the opinion that a large portion of R19471 Nature Reserve contains eucalypt woodlands that would fit this critically endangered community type; however further surveying would be required to confirm the presence and extent of the community.

3.3.5 Vegetation Condition

Many bushland remnants have been historically subject to ongoing degradation and are especially susceptible to disturbances arising as a result of indirect impacts from surrounding developments and human activity. Degradation is caused by a wide range of factors, including isolation and edge effects, weed invasion, plant diseases, changes in fire frequency and behaviour, landscape fragmentation, illegal firewood cutting, rubbish/refuse dumping, off-road motorbikes and 4WD's, increased predation on native fauna by feral animals, decrease in species richness and general modification of ecological function. These issues can affect the biodiversity rating and ecological viability of areas of remnant vegetation and should be assessed in line with conservation values.

The Vegetation Condition was rated according to the Vegetation Condition Scale commonly used in the Perth Metropolitan Region (Government of WA 2000). The definitions are described in **Table 7**.

Table 7: Vegetation Condition Scale (Technical Guidance Statement, 2016)

Vegetation Condition	Definition
Pristine (1)	Pristine or nearly so, no obvious signs of disturbance.
Excellent (2)	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.
Very Good (3)	Vegetation structure altered, obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing
Good (4)	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and grazing.
Degraded (5)	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Completely Degraded (6)	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

In general, the vegetation condition ranged from "Degraded" to "Very Good" in the study area. Vegetation condition mapping is provided on **Figure 6**.

4. TRACK CONDITIONS, SIGNAGE AND ILLEGAL ACTIVITY

4.1 TRACKS AND FIREBREAKS CONDITION

Nature Reserve (R19741) is accessible from Brookton Highway along the southern boundary and Williams Road on the western boundary. There are firebreaks around the northern and eastern perimeter of the reserve, which are on the adjoining private properties.

The small section to the west of Williams Road is accessible from Brookton Highway along the southern boundary and Williams Road on the eastern boundary. There is a firebreak along the western perimeter of the reserve, which is located on the adjoining private property.

There are no firebreaks within the reserve; the firebreaks are on the private properties. There are numerous tracks in the eastern section along Williams Road; these tracks appear to be historically used for access to an old rubbish dumping area and a gravel pit. These areas are shown on **Figures 4 & 5**. There also appears to be an old rehabilitation area in this section.



Photo 12: Old rehabilitation area

There are no tracks around Nature Reserve (R19741); this site is not accessible to drive around or through. Firebreaks within the reserve boundary may need to be included in future planning.

4.2 FENCING

The overall condition of the boundary fences appear to be in good condition. Ongoing maintenance is important as the reserve is bounded by working farms with livestock. There is no fencing along Brookton Highway and Williams Road.

4.3 SIGNAGE

During the site visit, two nature reserve signs were observed; one along Brookton Hwy, one on Williams Road. There is no name shown on either of the signs for the reserve. Reserve sign locations are shown on **Figures 4 & 5**.



Photo 13: Signage at Reserve (R19741)

4.4 ILLEGAL ACTIVITY

There are no current signs of motorbikes or 4WD's accessing the reserve. There appears to be limited activity in this area. There are historic signs of wood cutting and rubbish dumping, however these areas are limited. Most of the rubbish is present along Williams Road, where tracks allow car access into the reserve. This area is shown on **Figures 4 & 5**.



Photo 14: Historic rubbish dumping on the eastern side of the reserve

5. FIRE

Prior to European settlement, fires occurred through lightning strikes and Indigenous burning of the landscape. Indigenous burning practices had been adopted for up to 60 000 years and likely comprised a mosaic of frequent, small-scale fires, often during summer months in the more mesic woodlands of the western Wheatbelt. Since European settlement, fires still occur through lightning strikes. However, they now also originate from prescribed burning operations (including escapes from planned fires), arson or accidental ignition due to a range of sources. The nature and impacts of fire is influenced by other threats in the landscape. Fragmentation into small remnants and the surrounding modified land use can affect the intensity and impact of fires across a patch. The type of understorey may promote or suppress fire spread. Frequency of fire is one important consideration in addition to fire intensity and season. Too frequent fires may eliminate sensitive species. For example: obligate seeder species that require fire to stimulate seed germination may die out if recurring fires kill plants before they have a chance to mature and develop new seeds; and fauna may decline due to the loss of food and shelter resources after frequent fires.

The main concern for natural remnants in the Wheatbelt is a lack of fire or much longer intervals between fire events. The lack of fire limits recruitment of plant species, especially those that require heat, smoke or other features of a fire to stimulate germination and establishment of seedlings. It also impacts on fauna by limiting the development of habitat diversity, especially opportunities for new tree hollows and logs, or not allowing the regeneration of dense thickets of trees and shrubs, that give shelter to many kinds of fauna. It is important to develop appropriate fire management with the use of mosaic burning to maintain the diversity of habitats for flora and fauna.

There are no immediate signs of recent fire activity. Evidence on the vegetation suggests the last fire may have been more than 10 years ago. There are no tracks or fire breaks through this reserve. For fire protection it is suggested that a firebreak is added around the perimeter of the reserve.

6. POTENTIAL THREATS

Nationally-listed key threatening processes

The following are EPBC-listed key threatening processes, current as at February 2015, that are relevant to the WA Wheatbelt Woodland ecological community:

- Competition and land degradation by rabbits
- Dieback caused by the root-rot fungus (*Phytophthora cinnamomi*)
- Land clearance
- Loss of terrestrial climatic habitat caused by anthropogenic emissions of greenhouse gases
- Novel biota and their impact on biodiversity
- Predation by European red fox
- Predation by feral cats
- Predation, habitat degradation, competition and disease transmission by feral pigs

The threats listed above should be considered when implementing future plans for the conservation and protection of the reserve.

7. CONCLUSION AND RECOMMENDATIONS

Nature Reserve (R19741) is a conservation reserve for the protection of flora and fauna. The reserve is predominately in very good condition and provides a valuable stepping stone of vegetation for fauna.

Based on the results of this assessment, Del Botanics proposes the following reserve management recommendations:

- Undertake a dieback assessment;
- Implement a weed management plan;
- Undertake fire break maintenance;
- Undertake a Detailed (Level two) flora survey;
- Undertake a Threatened Ecological Community Assessment for *Eucalypt Woodlands of the Western Australian Wheatbelt*;
- Undertake a targeted Declared Rare Flora Search for the species listed below. These species have been selected as a result of a background search of the site; however the search should not be limited to these species but should also include any DRF found within the reserve.
- Undertake a Targeted Fauna Search for the species listed below. These species have been selected as a result of a background search of the site; however the search should not be limited to these species but should also include any Threatened fauna found within the reserve.

Targeted Flora Search List species

Species	Common Name	State Listed	Federal Listed
<i>Acacia adjutrices</i>		P3	
<i>Acacia alata</i> var. <i>platyptera</i>		P4	
<i>Acacia cochlocarpa</i> subsp. <i>cochlocarpa</i>	Spiral-fruited Wattle		Endangered
<i>Acacia cuneifolia</i>		P4	
<i>Acacia horridula</i>		P3	
<i>Banksia cynaroides</i>		P4	
<i>Banksia oligantha</i>	Wagin Banksia		Endangered
<i>Boronia capitata</i> subsp. <i>capitata</i>			Endangered
<i>Brachyloma mogin</i>		P3	
<i>Chamelaucium</i> sp. <i>Dryandra</i>		P2	
<i>Darwinia</i> sp. <i>Dryandra</i>		P4	
<i>Darwinia</i> sp. <i>Westdale</i>		P2	
<i>Darwinia thymoides</i> subsp. <i>St Ronans</i>		P4	
<i>Diuris micrantha</i>	Dwarf Bee-orchid		Vulnerable
<i>Eleocharis keigheryi</i>	Keighery's Eleocharis	T	Vulnerable
<i>Eremaea violacea</i> subsp. <i>Dobaderry Swamp</i>		P1	
<i>Eucalyptus caesia</i> subsp. <i>caesia</i>	Caesia	P4	
<i>Eucalyptus exilis</i>	Boyagin Mallee	P4	
<i>Gastrolobium ovalifolium</i>	Runner Poison	P4	
<i>Grevillea crowleyae</i>		P2	
<i>Hakea aculeata</i>	Column Hakea	T	
<i>Haloragis aculeolata</i>		P2	
<i>Hibbertia glomerata</i> subsp. <i>wandoo</i>		P3	
<i>Hibbertia montana</i>		P4	
<i>Lasiopetalum caroliae</i>		P3	
<i>Lasiopetalum rotundifolium</i>		T	
<i>Lechenaultia laricina</i>	Scarlet Leschenaultia	P2	
<i>Persoonia hakeiformis</i>		P3	
<i>Petrophile filifolia</i> subsp. <i>laxa</i>		P3	
<i>Pultenaea pauciflora</i>	Narrogen Pea	T	Vulnerable
<i>Synaphea boyaginensis</i>		P2	
<i>Synaphea pandurata</i>		P3	
<i>Tetratheca similis</i>		T	
<i>Thelymitra dedmaniarum</i>	Cinnamon Sun Orchid		Endangered
<i>Thomasia montana</i>	Hill Thomasia	T	Vulnerable
<i>Verticordia fimbrialepis</i> subsp. <i>fimbrialepis</i>	Shy Featherflower		Endangered
<i>Xanthosia tomentosa</i>	Lesueur Southern Cross	P4	

Targeted Fauna Search List species

Species	Common Name	State Listed	Federal Listed
<i>Bettongia penicillata subsp. ogilbyi</i>	Woylie, Brush-tailed Bettong	T	
<i>Calidris ferruginea</i>	Curlew Sandpiper		Critically Endangered
<i>Calyptorhynchus banksii naso</i>	Forest Red-tailed Black-Cockatoo, Karrak		Vulnerable
<i>Calyptorhynchus banksii subsp. naso</i>	Forest Red-tailed Black Cockatoo	T	
<i>Calyptorhynchus baudinii</i>	Baudin's Black-Cockatoo, Long-billed Black-Cockatoo		Vulnerable
<i>Calyptorhynchus baudinii</i>	Baudin's Cockatoo, White-tailed Long-billed Black Cockatoo	T	
<i>Calyptorhynchus latirostris</i>	Carnaby's Black-Cockatoo, Short-billed Black-Cockatoo		Endangered
<i>Calyptorhynchus latirostris</i>	Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo	T	
<i>Calyptorhynchus sp.</i>	white-tailed black cockatoo	T	
<i>Dasyurus geoffroii</i>	Chuditch, Western Quoll		Vulnerable
<i>Dasyurus geoffroii</i>	Chuditch, Western Quoll	T	
<i>Falco peregrinus</i>	Peregrine Falcon	S	
<i>Hydromys chrysogaster</i>	Water-rat, Rakali	P4	
<i>Idiosoma nigrum</i>	Shield-backed Trapdoor Spider	T	
<i>Leipoa ocellata</i>	Malleefowl		Vulnerable
<i>Leipoa ocellata</i>	Malleefowl	T	
<i>Macrotis lagotis</i>	Bilby, Dalgyte, Ninu	T	
<i>Myrmecobius fasciatus</i>	Numbat, Walpurti	T	
<i>Notamacropus eugenii subsp. derbianus</i>	Tammar Wallaby, Tammar	P4	
<i>Notamacropus irma</i>	Western Brush Wallaby	P4	
<i>Phascogale calura</i>	Red-tailed Phascogale, Red-tailed Wambenger, Kenngoor		Vulnerable
<i>Phascogale calura</i>	Red-tailed Phascogale, Kenngoor	S	
<i>Platycercus icterotis subsp. Xanthogenys</i>	Western Rosella	P4	
<i>Rostratula australis</i>	Australian Painted Snipe		Endangered
<i>Westralunio carteri</i>	Carter's Freshwater Mussel	T	

8. REFERENCES

Beard J. S. (1990). *Plant life of Western Australia*. Kangaroo Press, Perth.

Beecham, B (2001), *Avon Wheatbelt 2 (AW2 - Rejuvenated Drainage subregion*, Department of Conservation and Land Management

Department of the Environment and Energy, (2019) Protected Matters Search Tool,

Department of the Environment (2017). Eucalypt Woodlands of the Western Australian Wheatbelt in Community and Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/sprat>. Accessed 2017-04-05T15:02:15AEST.

English, V. and Blyth, J. (1997). *Identifying and conserving Threatened Ecological Communities in the South West Botanical Province*. ANCA National Reserves System Cooperative Program, Project Number N702.

Hedde, E.M., Loneragan,, O.W. and Havel, J.J. (1980). *Darling Systems – Vegetation Complexes*. In: Atlas of Natural Resources Darling System, Western Australia. Department of Conservation and Environment, Perth.

NatureMap (2019) *Mapping Western Australia's Biodiversity* Department of Parks and Wildlife and the Western Australian Museum.

Safstrom, R. (1997), *Native Vegetation Handbook for the Shire of Brookton*. Department of Agriculture and Food, Western Australia. Report, 85p.

Shires of Beverley and Brookton district rural strategy

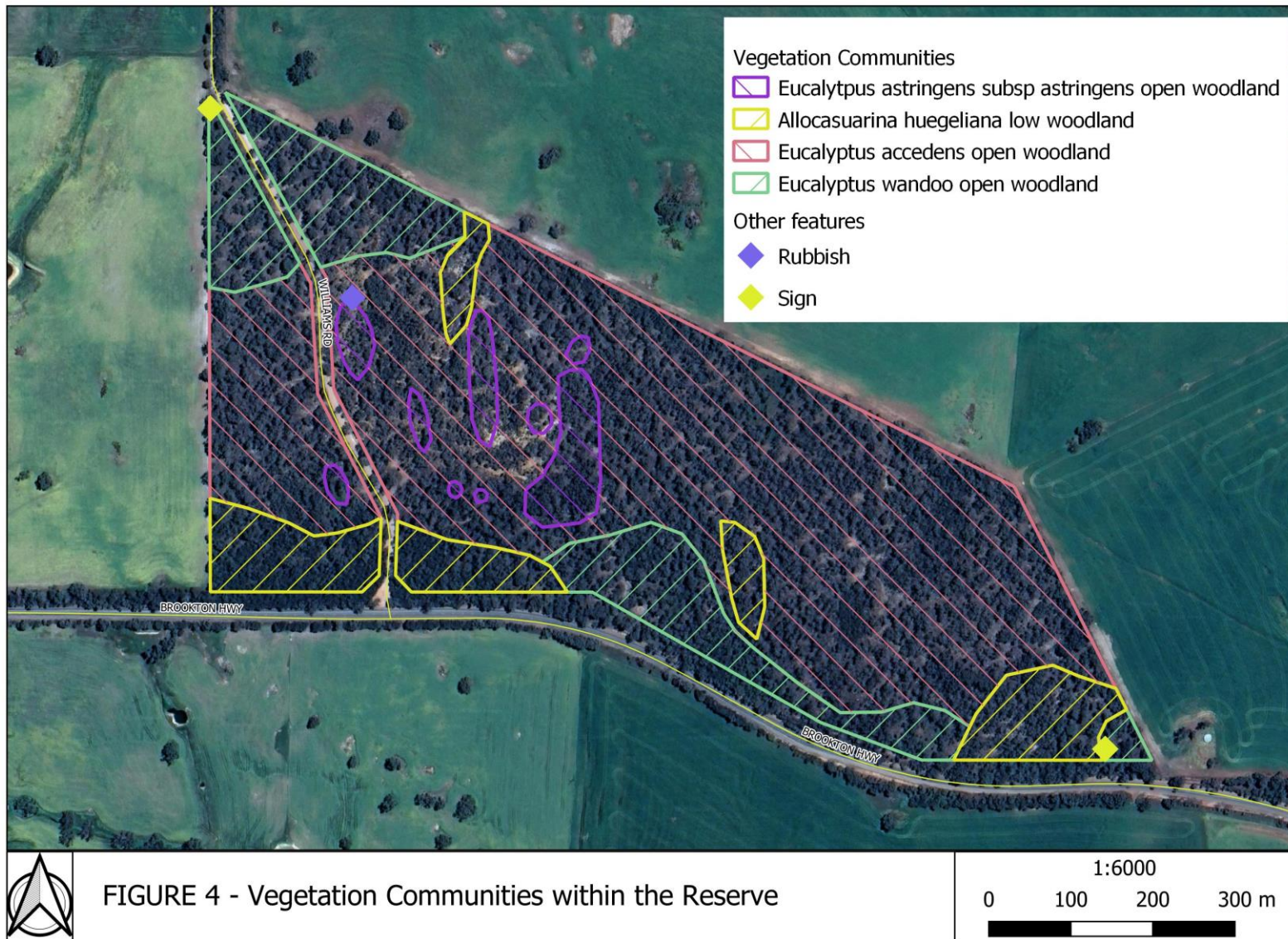
<http://www.brookton.wa.gov.au/profiles/brookton/assets/clientdata/document-centre/local-planning-strategy/physical-characteristic-study.pdf>

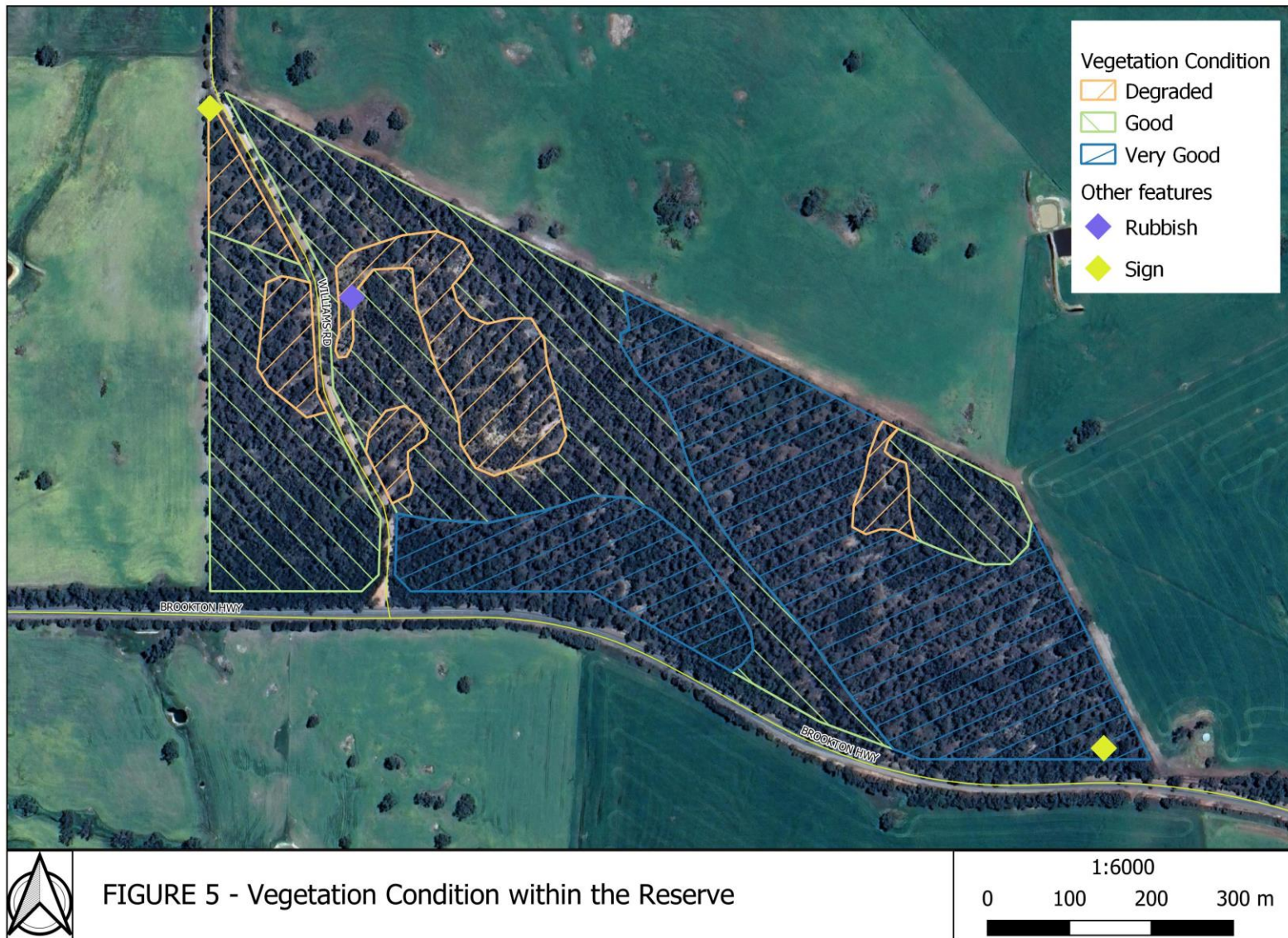
WALGA (2020) Environmental Planning Tool, <http://walga.asn.au/Subscription-Services/Environmental-Planning-Tool.aspx>.

WALGA, (2015), *Shire of Northam Local Biodiversity Strategy*, Local Biodiversity Program

Western Australian Herbarium (2020). *FloraBase - The Western Australian Flora*. Department of Parks and Wildlife

FIGURES





APPENDIX A
FLORA SPECIES RECORDED

Appendix A: Flora species recorded at R19471 Nature Reserve in October 2019 and March 2020.

Flora	Observed on site
* <i>Aira caryophylla</i> (Silvery Hairgrass)	X
* <i>Aira cupaniana</i> (Silvery Hairgrass)	
* <i>Aira praecox</i> (Early Hairgrass)	
* <i>Ammi majus</i> (Bishop's Weed)	
* <i>Aristida ramosa</i> (Purple Wiregrass)	
* <i>Atriplex prostrata</i> (Hastate Orache)	
* <i>Avena barbata</i> (Bearded Oat)	X
* <i>Brassica x napus</i>	
* <i>Briza maxima</i> (Blowfly Grass)	X
* <i>Briza minor</i> (Shivery Grass)	
* <i>Cotula coronopifolia</i> (Waterbuttons)	
* <i>Crassula natans</i> var. <i>minus</i>	
* <i>Cynodon dactylon</i> (Couch)	
* <i>Ehrharta longiflora</i> (Annual Veldt Grass)	X
* <i>Erodium botrys</i> (Long Storksbill)	
* <i>Galium murale</i> (Small Goosegrass)	
* <i>Hordeum glaucum</i> (Northern Barley Grass)	
* <i>Hypochaeris glabra</i> (Smooth Catsear)	X
* <i>Juncus acutus</i> subsp. <i>acutus</i>	
* <i>Lysimachia arvensis</i> (Pimpernel)	
* <i>Oenothera stricta</i> subsp. <i>stricta</i>	
* <i>Parentucellia latifolia</i> (Common Bartsia)	
* <i>Pentameris airoides</i> subsp. <i>airoides</i>	
* <i>Petrorrhagia dubia</i>	
* <i>Polygonum aviculare</i> (Wireweed)	
* <i>Polypogon monspeliensis</i> (Annual Beardgrass)	
* <i>Protoparmelia nebulosa</i>	
* <i>Romulea rosea</i> (Guildford Grass)	X
* <i>Sonchus oleraceus</i> (Common Sowthistle)	
* <i>Ursinia anthemoides</i> (Ursinia)	X
* <i>Ursinia anthemoides</i> subsp. <i>anthemoides</i>	
* <i>Xanthoparmelia boyaginensis</i>	
* <i>Xanthoparmelia cheelii</i>	
* <i>Xanthoparmelia nortegeta</i>	
? <i>Xerochrysum</i> sp	X
<i>Acacia acuminata</i> (Jam, Mangard)	X
<i>Acacia adjutrices</i> (P3)	
<i>Acacia alata</i> (Winged Wattle)	
<i>Acacia alata</i> var. <i>platyptera</i> (P4)	
<i>Acacia alata</i> var. <i>tetrantha</i>	
<i>Acacia applanata</i>	
<i>Acacia barbinervis</i> subsp. <i>barbinervis</i>	
<i>Acacia browniana</i> var. <i>endlicheri</i>	
<i>Acacia browniana</i> var. <i>intermedia</i>	
<i>Acacia celastrifolia</i> (Glowing Wattle)	

<i>Acacia chrysocephala</i>	
<i>Acacia cuneifolia</i> (P4)	
<i>Acacia drummondii</i> (Drummond's Wattle)	
<i>Acacia drummondii</i> subsp. <i>drummondii</i>	
<i>Acacia gemina</i>	
<i>Acacia horridula</i> (P3)	
<i>Acacia lasiocalyx</i> (Silver Wattle, Wilyurwur)	
<i>Acacia lasiocarpa</i> var. <i>sedifolia</i>	
<i>Acacia lullfitziorum</i>	
<i>Acacia microbotrya</i> (Manna Wattle, Kalyang)	
<i>Acacia nervosa</i> (Rib Wattle)	
<i>Acacia preissiana</i>	
<i>Acacia pulchella</i> (Prickly Moses)	X
<i>Acacia pulchella</i> var. <i>glaberrima</i>	
<i>Acacia pulchella</i> var. <i>pulchella</i>	
<i>Acacia pycnocephala</i>	
<i>Acacia saligna</i> (Orange Wattle, Kudjong)	
<i>Acacia saligna</i> subsp. <i>lindleyi</i>	
<i>Acacia stenoptera</i> (Narrow Winged Wattle)	
<i>Acacia willdenowiana</i> (Grass Wattle)	
<i>Adenanthos cygnorum</i> (Common Woollybush)	
<i>Adenanthos cygnorum</i> subsp. <i>cygnorum</i> (Common Woollybush)	
<i>Agrostocrinum scabrum</i> subsp. <i>scabrum</i>	
<i>Ainudrilus nharna</i>	
<i>Allocasuarina fraseriana</i>	X
<i>Allocasuarina huegeliana</i> (Rock Sheoak, Kwowl)	X
<i>Allocasuarina humilis</i> (Dwarf Sheoak)	X
<i>Allocasuarina microstachya</i>	
<i>Allocasuarina thuyoides</i> (Horned Sheoak)	
<i>Amphipogon amphipogonoides</i>	
<i>Amphipogon debilis</i>	
<i>Amphipogon laguroides</i> subsp. <i>havelii</i>	
<i>Amphipogon turbinatus</i>	
<i>Amyema miquelii</i> (Stalked Mistletoe)	
<i>Aname mainae</i>	
<i>Anarthria gracilis</i>	
<i>Andersonia caerulea</i> (Foxtails)	
<i>Anigozanthos bicolor</i> subsp. <i>bicolor</i>	
<i>Anigozanthos humilis</i> (Catspaw)	
<i>Astroloma acervatum</i>	
<i>Astroloma ciliatum</i> (Candle Cranberry)	X
<i>Astroloma compactum</i>	
<i>Astroloma epacridis</i>	
<i>Astroloma pallidum</i> (Kick Bush)	X
<i>Astroloma serratifolium</i> (Kondrung)	
<i>Austrostipa elegantissima</i>	X
<i>Austrostipa hemipogon</i>	X
<i>Austrostipa plumigera</i>	

<i>Austrostipa</i> sp.	X
<i>Austrostipa trichophylla</i>	
<i>Babingtonia camphorosmae</i> (Camphor Myrtle)	
<i>Banksia armata</i> var. <i>armata</i>	X
<i>Banksia armata</i> var. <i>ignicida</i>	
<i>Banksia attenuata</i> (Slender Banksia, Piara)	
<i>Banksia bipinnatifida</i> subsp. <i>bipinnatifida</i>	
<i>Banksia columnaris</i>	
<i>Banksia cynaroides</i> (P4)	
<i>Banksia dallanneyi</i> (Couch Honeypot)	
<i>Banksia dallanneyi</i> subsp. <i>dallanneyi</i> var. <i>dallanneyi</i>	
<i>Banksia drummondii</i> subsp. <i>hiemalis</i>	
<i>Banksia grandis</i> (Bull Banksia, Pulgarla)	
<i>Banksia littoralis</i> (Swamp Banksia, Pungura)	
<i>Banksia nivea</i> subsp. <i>nivea</i>	
<i>Banksia nobilis</i> (Golden Dryandra)	
<i>Banksia nobilis</i> subsp. <i>nobilis</i>	
<i>Banksia prionotes</i> (Acorn Banksia)	
<i>Banksia proteoides</i> (King Dryandra)	X
<i>Banksia sessilis</i> var. <i>sessilis</i>	X
<i>Banksia</i> sp	X
<i>Banksia sphaerocarpa</i> var. <i>caesia</i>	
<i>Banksia squarrosa</i> (Pingle)	
<i>Banksia squarrosa</i> subsp. <i>squarrosa</i>	X
<i>Banksia stupeosa</i>	
<i>Banksia vestita</i> (Summer Dryandra)	
<i>Baumea juncea</i> (Bare Twigrush)	
<i>Beaufortia incana</i> (Grey-leaved Beaufortia)	
<i>Beaufortia puberula</i> (Hairy-leaved Beaufortia)	
<i>Billardiera fraseri</i> (Elegant Pronaya)	
<i>Billardiera fusiformis</i> (Australian Bluebell)	X
<i>Billardiera venusta</i>	
<i>Blennospora drummondii</i>	
<i>Boronia crenulata</i> subsp. <i>viminea</i>	
<i>Boronia ramosa</i>	
<i>Boronia ramosa</i> subsp. <i>anethifolia</i>	
<i>Boronia scabra</i> subsp. <i>scabra</i>	
<i>Boronia spathulata</i> (Boronia)	
<i>Borya laciniata</i>	
<i>Borya scirpoidea</i>	
<i>Borya sphaerocephala</i> (Pincushions)	X
<i>Bossiaea eriocarpa</i> (Common Brown Pea)	X
<i>Bossiaea ornata</i> (Broad Leaved Brown Pea)	X
<i>Bossiaea pulchella</i>	
<i>Bossiaea spinescens</i>	
<i>Bostockia porosa</i>	
<i>Brachyloma mogin</i> (P3)	
<i>Brachyloma preissii</i> (Globe Heath)	

<i>Brachyscome glandulosa</i>	
<i>Brachyscome iberidifolia</i>	
<i>Brachyscome pusilla</i>	
<i>Breutelia affinis</i>	
<i>Caesia micrantha</i> (Pale Grass Lily)	
<i>Caladenia barbarossa</i> (Dragon Orchid)	
<i>Caladenia denticulata</i>	
<i>Caladenia dimidia</i>	
<i>Caladenia discoidea</i> (Dancing Orchid)	
<i>Caladenia falcata</i>	
<i>Caladenia filifera</i>	
<i>Caladenia flava</i> (Cowslip Orchid)	
<i>Caladenia flava</i> subsp. <i>flava</i>	
<i>Caladenia flava</i> subsp. <i>late red</i> (G. Brockman GBB 2381)	
<i>Caladenia footeana</i>	
<i>Caladenia hirta</i> subsp. <i>rosea</i>	
<i>Caladenia longicauda</i> subsp. <i>eminens</i>	
<i>Caladenia longiclavata</i> (Clubbed Spider Orchid)	
<i>Caladenia macrostylis</i> (Leaping Spider Orchid)	
<i>Caladenia reptans</i> subsp. <i>reptans</i>	
<i>Caladenia</i> sp. Wandoo (G. Brockman GBB 671)	
<i>Caladenia uliginosa</i> subsp. <i>candicans</i>	
<i>Caladenia xantha</i>	
<i>Calandrinia calyptrata</i> (Pink Purslane)	
<i>Callitris pyramidalis</i> (Swamp Cypress)	
<i>Calochilus stramenicola</i>	
<i>Calothamnus planifolius</i> var. <i>planifolius</i>	
<i>Calothamnus quadrifidus</i> (One-sided Bottlebrush, Kwowdjard)	
<i>Calothamnus quadrifidus</i> subsp. <i>quadrifidus</i>	
<i>Calothamnus rupestris</i> (Mouse Ears)	
<i>Calothamnus sanguineus</i> (Silky-leaved Blood flower, Pindak)	
<i>Calytrix simplex</i> subsp. <i>suboppositifolia</i>	
<i>Calytrix violacea</i>	
<i>Campylopus bicolor</i> var. <i>bicolor</i>	
<i>Casuarina obesa</i> (Swamp Sheoak, Kuli)	X
<i>Caustis dioica</i>	
<i>Ceinidae</i> sp.	
<i>Centrolepis aristata</i> (Pointed Centrolepis)	
<i>Centrolepis drummondiana</i>	
<i>Chamaescilla corymbosa</i> (Blue Squill)	
<i>Chamaescilla corymbosa</i> var. <i>corymbosa</i>	
<i>Chamaescilla versicolor</i>	
<i>Chamaexeros serra</i> (Little Fringe-leaf)	
<i>Chamelaucium</i> sp. <i>Dryandra</i> (D. Rose 446) P2	
<i>Cheilanthes austrotenuifolia</i>	X
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	
<i>Chordifex isomorphus</i>	
<i>Chordifex stenandrus</i>	

<i>Chorizandra enodis</i> (Black Bristlerush)	
<i>Chorizema dicksonii</i> (Yellow-eyed Flame Pea)	
<i>Cladonia capitellata</i>	
<i>Cladonia capitellata</i> var. <i>capitellata</i>	
<i>Cladonia cervicornis</i> subsp. <i>verticillata</i>	
<i>Cladonia ramulosa</i>	
<i>Cladonia rigida</i> var. <i>acuta</i>	
<i>Coenagrionidae</i> sp.	
<i>Comesperma ciliatum</i>	
<i>Comesperma drummondii</i> (Drummond's Milkwort)	
<i>Conospermum amoenum</i> (Blue Smokebush)	
<i>Conospermum croninae</i>	
<i>Conospermum filifolium</i> subsp. <i>filifolium</i>	
<i>Conostylis caricina</i> subsp. <i>caricina</i>	
<i>Conostylis pusilla</i>	
<i>Conostylis serrulata</i>	
<i>Conostylis setigera</i> (Bristly Cottonhead)	
<i>Conostylis setigera</i> subsp. <i>setigera</i>	
<i>Conostylis</i> sp	X
<i>Corymbia calophylla</i> (Marri)	X
<i>Craspedia variabilis</i>	
<i>Crassula colorata</i> var. <i>acuminata</i>	
<i>Crassula colorata</i> var. <i>colorata</i>	
<i>Crassula decumbens</i> var. <i>decumbens</i>	
<i>Crassula extrorsa</i>	
<i>Cryptandra nutans</i>	
<i>Cyanicula sericea</i>	
<i>Cycnogeton huegelii</i>	
<i>Cycnogeton lineare</i>	
<i>Dampiera alata</i> (Winged-stem Dampiera)	X
<i>Dampiera eriocephala</i> (Woolly-headed Dampiera)	
<i>Dampiera juncea</i> (Rush-like Dampiera)	
<i>Dampiera lavandulacea</i>	
<i>Dampiera linearis</i> (Common Dampiera)	X
<i>Dampiera obliqua</i>	
<i>Darwinia</i> sp. <i>Dryandra</i> (G.J. Keighery 9295) P4	
<i>Darwinia</i> sp. <i>Westdale</i> (F. Hort 864) P2 Y	
<i>Darwinia thymoides</i> subsp. <i>St Ronans</i> (J.J. Alford & G.J. Keighery 64) P4	
<i>Daucus glochidiatus</i> (Australian Carrot)	
<i>Daviesia brachyphylla</i>	
<i>Daviesia cordata</i> (Bookleaf)	
<i>Daviesia costata</i>	
<i>Daviesia decipiens</i>	
<i>Daviesia decurrens</i> (Prickly Bitter-pea)	X
<i>Daviesia decurrens</i> subsp. <i>decurrens</i>	
<i>Daviesia hakeoides</i> subsp. <i>subnuda</i>	
<i>Daviesia horrida</i> (Prickly Bitter-pea)	
<i>Daviesia microphylla</i>	

<i>Daviesia preissii</i>	
<i>Daviesia rhombifolia</i>	
<i>Daviesia sp</i>	X
<i>Daviesia uniflora</i>	
<i>Desmocladius asper</i>	
<i>Desmocladius fasciculatus</i>	X
<i>Desmocladius flexuosus</i>	X
<i>Deyeuxia quadriseta (Reed Bentgrass)</i>	
<i>Dianella revoluta (Blueberry Lily)</i>	X
<i>Dillwynia laxiflora</i>	
<i>Diplolaena graniticola</i>	X
<i>Diuris brachyscapa</i>	
<i>Diuris brumalis</i>	
<i>Diuris corymbosa</i>	
<i>Diuris longifolia (Common Donkey Orchid)</i>	
<i>Diuris porrifolia</i>	
<i>Dodonaea pinifolia</i>	
<i>Dodonaea viscosa subsp. angustissima</i>	
<i>Drakaea gracilis</i>	
<i>Drakaea livida</i>	
<i>Drosera bulbosa subsp. bulbosa</i>	
<i>Drosera callistos</i>	
<i>Drosera erythrorhiza (Red Ink Sundew)</i>	X
<i>Drosera glanduligera (Pimpernel Sundew)</i>	
<i>Drosera hyperostigma</i>	
<i>Drosera leucoblata (Wheel Sundew)</i>	
<i>Drosera macrantha (Bridal Rainbow)</i>	
<i>Drosera macrophylla (Showy Sundew)</i>	
<i>Drosera menziesii (Pink Rainbow)</i>	
<i>Drosera pallida (Pale Rainbow)</i>	X
<i>Drosera porrecta</i>	
<i>Drosera sp. Branched styles (S.C. Coffey 193)</i>	
<i>Drosera stolonifera (Leafy Sundew)</i>	
<i>Drosera stricticaulis (Erect Sundew)</i>	
<i>Drosera subhirtella (Sunny Rainbow)</i>	
<i>Eleocharis keigheryi (T)</i>	
<i>Elythranthera emarginata (Pink Enamel Orchid)</i>	
<i>Eremaea purpurea</i>	
<i>Eremaea violacea subsp. Dobaderry Swamp (M.E. Trudgen 3909) (P1)</i>	
<i>Eremiascincus richardsonii (Broad-banded Sand Swimmer)</i>	
<i>Erodium cygnorum (Blue Heronsbill)</i>	
<i>Eucalyptus accedens (Powderbark Wandoo)</i>	X
<i>Eucalyptus aspersa</i>	
<i>Eucalyptus aspersa x falcata</i>	
<i>Eucalyptus astringens subsp. astringens</i>	X
<i>Eucalyptus caesia subsp. caesia (Caesia) (P4)</i>	
<i>Eucalyptus decurva (Slender Mallee)</i>	
<i>Eucalyptus dorrienii</i>	

<i>Eucalyptus drummondii</i> (Drummond's Gum)	
<i>Eucalyptus exilis</i> (Boyagin Mallee) (P4)	
<i>Eucalyptus falcata</i> (Silver Mallet, Dulyumuk)	
<i>Eucalyptus gomphocephala</i> (Tuart, Duart)	
<i>Eucalyptus latens</i> (Narrow-leaved Red Mallee)	
<i>Eucalyptus loxophleba</i> (York Gum, Dwoda)	
<i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (York Gum)	
<i>Eucalyptus marginata</i> (Jarrah, Djara)	X
<i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Blue-leaved Jarrah)	
<i>Eucalyptus rudis</i> (Flooded Gum, Kulurda)	
<i>Eucalyptus rudis</i> subsp. <i>rudis</i>	
<i>Eucalyptus wandoo</i> (Wandoo, Wonda)	X
<i>Eucalyptus wandoo</i> subsp. <i>wandoo</i>	
<i>Exocarpos sparteus</i> (Broom Ballart, Djuk)	
<i>Fabronia australis</i>	
<i>Gahnia aristata</i>	
<i>Gahnia australis</i>	
<i>Gastrolobium asperum</i>	
<i>Gastrolobium calycinum</i> (York Road Poison)	
<i>Gastrolobium hookeri</i>	
<i>Gastrolobium obovatum</i> (Boat-leaved Poison)	
<i>Gastrolobium ovalifolium</i> (Runner Poison) (P4)	
<i>Gastrolobium parviflorum</i>	
<i>Gastrolobium parvifolium</i> (Berry Poison)	
<i>Gastrolobium praemorsum</i>	
<i>Gastrolobium reticulatum</i>	
<i>Gastrolobium rhombifolium</i>	
<i>Gastrolobium</i> sp	X
<i>Gastrolobium</i> sp	X
<i>Gastrolobium spinosum</i> (Prickly Poison)	
<i>Gastrolobium trilobum</i> (Bullock Poison)	
<i>Gastrolobium villosum</i> (Crinkle-leaved Poison)	
<i>Glischrocaryon angustifolium</i>	
<i>Glischrocaryon aureum</i> (Common Popflower)	X
<i>Gompholobium capitatum</i>	
<i>Gompholobium knightianum</i>	
<i>Gompholobium marginatum</i>	X
<i>Gompholobium preissii</i>	
<i>Gonocarpus cordiger</i>	
<i>Gonocarpus nodulosus</i>	
<i>Gonocarpus pithyoides</i>	
<i>Goodenia drummondii</i> subsp. <i>megaphylla</i>	
<i>Goodenia micrantha</i>	
<i>Goodenia scapigera</i> subsp. <i>scapigera</i>	
<i>Goodenia watsonii</i> subsp. <i>glandulosa</i>	
<i>Grevillea cirsiifolia</i> (Varied-leaf Grevillea)	
<i>Grevillea crowleyae</i> (P2)	
<i>Grevillea hookeriana</i> (Red Tooth Brushes)	

<i>Grevillea hookeriana</i> subsp. <i>hookeriana</i>	
<i>Grevillea leptobotrys</i>	
<i>Grevillea monticola</i>	
<i>Grevillea pilulifera</i> (Woolly-flowered <i>Grevillea</i>)	
<i>Grevillea quercifolia</i> (Oak-leaf <i>Grevillea</i>)	X
<i>Grevillea spinosissima</i>	
<i>Grevillea tenuiflora</i> (Tassel <i>Grevillea</i>)	
<i>Grevillea vestita</i> subsp. <i>vestita</i>	
<i>Grevillea wilsonii</i> (Native <i>Fuchsia</i>)	
<i>Haemodorum</i> ? <i>laxum</i>	X
<i>Haemodorum simplex</i>	
<i>Hakea aculeata</i> (Column <i>Hakea</i>) (T)	
<i>Hakea amplexicaulis</i> (Prickly <i>Hakea</i>)	
<i>Hakea anadenia</i>	
<i>Hakea cyclocarpa</i> (Ramshorn)	
<i>Hakea incrassata</i> (Marble <i>Hakea</i>)	
<i>Hakea lissocarpha</i> (Honey Bush)	X
<i>Hakea loranthifolia</i>	
<i>Hakea petiolaris</i> subsp. <i>petiolaris</i>	
<i>Hakea prostrata</i> (Harsh <i>Hakea</i>)	X
<i>Hakea ruscifolia</i> (Candle <i>Hakea</i>)	
<i>Hakea stenocarpa</i> (Narrow-fruited <i>Hakea</i>)	
<i>Hakea trifurcata</i> (Two-leaf <i>Hakea</i>)	
<i>Hakea undulata</i> (Wavy-leaved <i>Hakea</i>)	
<i>Halgania anagaloides</i> var. <i>Southern</i> (A.E. Orchard 1609)	
<i>Haloragis aculeolata</i> (P2)	
<i>Helichrysum leucopsideum</i>	
<i>Helichrysum</i> sp	X
<i>Heliotropium curassavicum</i> (Smooth <i>Heliotrope</i>)	
<i>Hemiandra incana</i>	
<i>Hemiandra linearis</i> (Speckled <i>Snakebush</i>)	
<i>Hemiandra pungens</i> (<i>Snakebush</i>)	
<i>Hemigenia argentea</i>	
<i>Hemigenia incana</i> (Silky <i>Hemigenia</i>)	
<i>Hemigenia viscida</i> (Sticky <i>Hemigenia</i>)	
<i>Hemigenia wandooana</i>	
<i>Hibbertia acerosa</i> (Needle Leaved <i>Guinea Flower</i>)	
<i>Hibbertia commutata</i>	
<i>Hibbertia crassifolia</i>	
<i>Hibbertia diamesogenos</i>	
<i>Hibbertia exasperata</i>	
<i>Hibbertia glomerata</i> subsp. <i>wandoo</i> (P3)	
<i>Hibbertia hemignosta</i>	
<i>Hibbertia hibbertioides</i> var. <i>hibbertioides</i>	
<i>Hibbertia hibbertioides</i> var. <i>pedunculata</i>	
<i>Hibbertia huegelii</i>	
<i>Hibbertia hypericoides</i> (Yellow <i>Buttercups</i>)	X
<i>Hibbertia microphylla</i>	

<i>Hibbertia montana</i> (P4)	
<i>Hibbertia polystachya</i>	
<i>Hibbertia rupicola</i>	
<i>Hibbertia</i> sp.	X
<i>Hibbertia spicata</i>	
<i>Hovea chorizemifolia</i> (Holly-leaved Hovea)	
<i>Hovea elliptica</i> (Tree Hovea)	
<i>Hovea pungens</i> (Devil's Pins, Puyenak)	
<i>Hovea trisperma</i> (Common Hovea)	
<i>Hyalosperma cotula</i>	X
<i>Hyalosperma demissum</i>	
<i>Hybanthus floribundus</i> subsp. <i>floribundus</i>	
<i>Hydraenidae</i> sp.	
<i>Hydrocotyle diantha</i>	
<i>Hypocalymma angustifolium</i> (White Myrtle, Kudjid)	X
<i>Hypolaena exsulca</i>	
<i>Isolepis cernua</i> var. <i>setiformis</i>	
<i>Isolepis cyperoides</i>	
<i>Isolepis marginata</i> (Coarse Club-rush)	
<i>Isopedella cana</i>	
<i>Isopogon crithmifolius</i>	
<i>Isopogon dubius</i> (Pincushion Coneflower)	
<i>Isopogon teretifolius</i> (Nodding Coneflower)	
<i>Jacksonia epiphyllum</i>	
<i>Jacksonia floribunda</i> (Holly Pea)	
<i>Jacksonia furcellata</i> (Grey Stinkwood)	
<i>Jacksonia racemosa</i>	
<i>Jacksonia restioides</i>	
<i>Jacksonia sternbergiana</i> (Stinkwood, Kapur)	
<i>Kennedia coccinea</i> (Coral Vine)	
<i>Kennedia prostrata</i> (Scarlet Runner)	
<i>Kunzea glabrescens</i> (Spearwood)	
<i>Kunzea pulchella</i> (Granite Kunzea, Silky Kunzea)	
<i>Labichea punctata</i> (Lance-leaved Cassia)	
<i>Lachnostachys ferruginea</i> (Rusty Lambstail)	
<i>Lagenophora huegelii</i>	X
<i>Lasiopetalum caroliae</i> (P3)	
<i>Lasiopetalum glabratum</i>	
<i>Lasiopetalum rotundifolium</i> (T)	
<i>Lawrencella rosea</i>	
<i>Laxmannia grandiflora</i>	
<i>Laxmannia grandiflora</i> subsp. <i>grandiflora</i>	
<i>Laxmannia omnifertilis</i>	
<i>Laxmannia squarrosa</i>	
<i>Lechenaultia biloba</i> (Blue Leschenaultia)	X
<i>Lechenaultia formosa</i> (Red Leschenaultia)	
<i>Lechenaultia formosa</i> subsp. <i>Wheatbelt</i> (R.J. Cranfield 4718)	
<i>Lechenaultia laricina</i> (Scarlet Leschenaultia) T	

<i>Lepidobolus preissianus</i>	
<i>Lepidosperma asperatum</i>	
<i>Lepidosperma costale</i>	
<i>Lepidosperma drummondii</i>	
<i>Lepidosperma gracile</i> (<i>Slender Sword Sedge</i>)	
<i>Lepidosperma leptostachyum</i>	X
<i>Lepidosperma longitudinale</i> (<i>Pithy Sword-sedge</i>)	
<i>Lepidosperma obtusum</i>	
<i>Lepidosperma pubisquameum</i>	
<i>Lepidosperma resinosum</i>	
<i>Lepidosperma sp.</i>	
<i>Lepidosperma squamatum</i>	
<i>Lepidosperma tenue</i>	X
<i>Lepidosperma tuberculatum</i>	
<i>Leptocarpus coangustatus</i>	
<i>Leptoceras menziesii</i>	
<i>Leptoceridae sp.</i>	
<i>Leptomeria ellytes</i>	
<i>Leptospermum erubescens</i> (<i>Roadside Teatree</i>)	
<i>Lepyrodia macra</i> (<i>Large Scale Rush</i>)	
<i>Leucopogon cordatus</i>	
<i>Leucopogon darlingensis</i>	
<i>Leucopogon darlingensis subsp. darlingensis</i>	
<i>Leucopogon dielsianus</i>	
<i>Leucopogon fimbriatus</i>	
<i>Leucopogon gracillimus</i>	
<i>Leucopogon nutans</i> (<i>Drooping Leucopogon</i>)	
<i>Leucopogon obtusatus</i>	
<i>Leucopogon pubescens</i>	
<i>Leucopogon sp.</i>	X
<i>Leucopogon sp. Boddington</i> (<i>D. Halford 80746</i>)	
<i>Leucopogon sp. Wandering</i> (<i>F. Hort 419</i>)	
<i>Leucopogon sprengelioides</i>	
<i>Leucopogon strictus</i>	
<i>Leucopogon verticillatus</i> (<i>Tassel Flower</i>)	
<i>Levenhookia dubia</i> (<i>Hairy Stylewort</i>)	
<i>Levenhookia pusilla</i> (<i>Midget Stylewort</i>)	
<i>Levenhookia stipitata</i> (<i>Common Stylewort</i>)	
<i>Linum marginale</i> (<i>Wild Flax</i>)	
<i>Lobelia gibbosa</i> (<i>Tall Lobelia</i>)	
<i>Logania micrantha</i>	
<i>Lolium sp.</i>	
<i>Lomandra brittanii</i>	
<i>Lomandra caespitosa</i> (<i>Tufted Mat Rush</i>)	
<i>Lomandra drummondii</i>	
<i>Lomandra effusa</i> (<i>Scented Matrush</i>)	
<i>Lomandra hermaphrodita</i>	
<i>Lomandra integra</i>	

<i>Lomandra micrantha</i> subsp. <i>micrantha</i>	
<i>Lomandra mucronata</i>	
<i>Lomandra nigricans</i>	
<i>Lomandra nutans</i>	
<i>Lomandra purpurea</i> (Purple Mat Rush)	
<i>Lomandra sericea</i> (Silky Mat Rush)	
<i>Lomandra</i> sp.	
<i>Lomandra spartea</i>	
<i>Lophoictinia isura</i>	
<i>Loxocarya striata</i>	
<i>Lyginia imberbis</i>	
<i>Lysinema elegans</i>	
<i>Lysinema pentapetalum</i>	
<i>Macrozamia fraseri</i>	
<i>Macrozamia riedlei</i> (<i>Zamia</i> , Djiridji)	X
<i>Marianthus bicolor</i> (Painted Marianthus)	
<i>Marianthus erubescens</i>	
<i>Melaleuca acutifolia</i>	
<i>Melaleuca aspalathoides</i>	
<i>Melaleuca cuticularis</i> (Saltwater Paperbark)	
<i>Melaleuca fulgens</i> (Scarlet Honey Myrtle)	
<i>Melaleuca fulgens</i> subsp. <i>fulgens</i>	
<i>Melaleuca platycalyx</i>	
<i>Melaleuca pungens</i>	
<i>Melaleuca raphiophylla</i> (Swamp Paperbark)	
<i>Melaleuca scalena</i>	
<i>Melaleuca tuberculata</i>	
<i>Melaleuca tuberculata</i> var. <i>tuberculata</i>	
<i>Melaleuca viminea</i> (Mohan)	
<i>Melaleuca viminea</i> subsp. <i>viminea</i>	
<i>Mesomelaena tetragona</i> (Semaphore Sedge)	
<i>Microcorys capitata</i>	
<i>Microeca fascinans</i> (Jacky Winter)	
<i>Millotia eichleri</i>	
<i>Millotia tenuifolia</i> (Soft Millotia)	
<i>Millotia tenuifolia</i> var. <i>tenuifolia</i> (Soft Millotia)	
<i>Mirbelia dilatata</i> (Holly-leaved Mirbelia)	
<i>Mirbelia floribunda</i> (Purple Mirbelia)	
<i>Mircoleana</i> sp	X
<i>Monotaxis grandiflora</i> (Diamond of the Desert)	
<i>Neurachne alopecuroidea</i> (Foxtail Mulga Grass)	X
<i>Olearia muricata</i> (Rough-leaved Daisy Bush)	
<i>Olearia rudis</i> (Rough Daisybush)	
<i>Opercularia echinocephala</i> (Bristly Headed Stink Weed)	
<i>Opercularia hispidula</i> (Hispid Stinkweed)	X
<i>Opercularia vaginata</i> (Dog Weed)	
<i>Ophioglossum lusitanicum</i> (Adders Tongue)	
<i>Paspalum vaginatum</i> (Salt Water Couch)	

<i>Patersonia ? pygmaea (Pygmy Patersonia)</i>	X
<i>Patersonia babianoides</i>	
<i>Patersonia juncea (Rush Leaved Patersonia)</i>	
<i>Patersonia rudis (Hairy Flag)</i>	
<i>Patersonia rudis subsp. rudis</i>	
<i>Pelargonium littorale</i>	
<i>Persoonia hakeiformis (P2)</i>	
<i>Persoonia quinquenervis</i>	X
<i>Persoonia trinervis</i>	
<i>Pertusaria georgeana var. occidentalis</i>	
<i>Petrophile brevifolia</i>	
<i>Petrophile divaricata</i>	
<i>Petrophile filifolia subsp. laxa (P3)</i>	
<i>Petrophile heterophylla (Variable-leaved Cone Bush)</i>	
<i>Petrophile imbricata</i>	
<i>Petrophile serruriae</i>	X
<i>Petrophile squamata subsp. northern (J. Monks 40)</i>	
<i>Petrophile striata</i>	
<i>Philothea nodiflora subsp. latericola</i>	
<i>Phlebocarya ciliata</i>	
<i>Phyllanthus calycinus (False Boronia)</i>	
<i>Pimelea graniticola</i>	
<i>Pimelea imbricata var. piligera</i>	
<i>Pimelea spectabilis (Bunjong)</i>	
<i>Pimelea suaveolens subsp. suaveolens</i>	
<i>Pimelea sulphurea (Yellow Banjine)</i>	
<i>Pimelea villifera</i>	
<i>Pithocarpa pulchella var. melanostigma</i>	
<i>Podolepis lessonii</i>	
<i>Prasophyllum gracile</i>	
<i>Prasophyllum ovale (Little Leek Orchid)</i>	
<i>Pterochaeta paniculata</i>	
<i>Pterostylis concava</i>	
<i>Pterostylis hamiltonii (Red-veined Shell Orchid)</i>	
<i>Pterostylis picta</i>	
<i>Pterostylis recurva (Jug Orchid)</i>	
<i>Pterostylis sanguinea</i>	
<i>Pterostylis sargentii (Frog Greenhood)</i>	
<i>Pterostylis sp.</i>	
<i>Pterostylis sp. inland (A.C. Beaglehole 11880)</i>	
<i>Pterostylis vittata (Banded Greenhood)</i>	
<i>Ptilotus declinatus (Curved Mulla Mulla)</i>	
<i>Ptilotus drummondii (Narrowleaf Mulla Mulla)</i>	
<i>Ptilotus humilis</i>	
<i>Ptilotus manglesii (Pom Poms, Mulamula)</i>	X
<i>Ptychostomum angustifolium</i>	
<i>Pultenaea ericifolia</i>	
<i>Pultenaea pauciflora (Narrogin Pea) (T)</i>	

<i>Pyrorchis nigricans</i> (Red beaks, Elephants ears)	
<i>Rhodanthe citrina</i>	
<i>Rhodanthe laevis</i>	
<i>Rhodanthe manglesii</i>	
<i>Rhodanthe sp</i>	X
<i>Rinzia crassifolia</i> (Darling Range Rinzia)	
<i>Rinzia fumana</i> (Polished Rinzia)	
<i>Rytidosperma ? setaceum</i>	X
<i>Samolus junceus</i>	
<i>Santalum murrayanum</i> (Bitter Quandong, Kulya)	
<i>Scaevola sp</i>	X
<i>Scaevola sp</i> (white)	X
<i>Schoenus armeria</i>	
<i>Schoenus clandestinus</i>	
<i>Schoenus curvifolius</i>	
<i>Schoenus nanus</i> (Tiny Bog Rush)	
<i>Schoenus odontocarpus</i>	
<i>Schoenus plumosus</i>	
<i>Schoenus subfascicularis</i>	
<i>Schoenus sublateralis</i>	
<i>Schoenus unispiculatus</i>	
<i>Siloxerus filifolius</i>	
<i>Siloxerus multiflorus</i>	
<i>Sowerbaea laxiflora</i> (Purple Tassels)	
<i>Sphaerolobium medium</i>	
<i>Stackhousia monogyna</i>	
<i>Stackhousia pubescens</i> (Downy Stackhousia)	
<i>Stackhousia scoparia</i>	
<i>Stenanthemum coronatum</i>	
<i>Stenanthemum nanum</i>	
<i>Stenanthemum pumilum</i> subsp. <i>majus</i>	
<i>Stylidium amoenum</i> (Lovely Triggerplant)	
<i>Stylidium androsaceum</i>	
<i>Stylidium araeophyllum</i> (Stilt Walker)	
<i>Stylidium brunonianum</i> (Pink Fountain Triggerplant)	
<i>Stylidium calcaratum</i> (Book Triggerplant)	
<i>Stylidium caricifolium</i> (Milkmaids)	
<i>Stylidium ciliatum</i> (Golden Triggerplant)	
<i>Stylidium ecome</i> (Foot Triggerplant)	
<i>Stylidium exappendiculatum</i> (P3)	
<i>Stylidium hispidum</i> (White Butterfly Triggerplant)	
<i>Stylidium hortiorum</i>	
<i>Stylidium lateriticola</i>	
<i>Stylidium leptocalyx</i> (Slender-calyxed Trigger Plant) P4	
<i>Stylidium obtusatum</i> (Pinafore Triggerplant)	
<i>Stylidium paulineae</i>	
<i>Stylidium petiolare</i> (Horn Triggerplant)	
<i>Stylidium piliferum</i> (Common Butterfly Triggerplant)	

<i>Stylidium repens</i> (Matted Triggerplant)	
<i>Stylidium rhynchocarpum</i> (Black-beaked Triggerplant)	
<i>Stylidium schoenoides</i> (Cow Kicks)	
<i>Stylidium</i> sp.	X
<i>Stylidium</i> sp. Boulder Rock (A.H. Burbidge 2536)	
<i>Stylidium tenue</i> subsp. <i>majusculum</i> (Showy Fountain Triggerplant)	
<i>Stylidium uniflorum</i>	
<i>Stylidium uniflorum</i> subsp. <i>uniflorum</i> (Pincushion Triggerplant)	
<i>Stypandra glauca</i> (Blind Grass)	X
<i>Styphelia tenuiflora</i> (Common Pinheath)	
<i>Synaphea boyaginensis</i> (P2)	
<i>Synaphea cuneata</i>	
<i>Synaphea damopsis</i>	
<i>Synaphea decorticans</i>	
<i>Synaphea flabelliformis</i>	
<i>Synaphea pandurata</i> (P3)	
<i>Synaphea</i> sp. Udumung (A.S. George 17058)	
<i>Templetonia drummondii</i>	
<i>Tetraria</i> ? <i>octandra</i>	X
<i>Tetraria capillaris</i> (Hair Sedge)	
<i>Tetraria</i> sp. Jarrah Forest (R. Davis 7391)	
<i>Tetradlea confertifolia</i>	
<i>Tetradlea hirsuta</i> subsp. <i>hirsuta</i>	
<i>Tetradlea similis</i> (P3)	
<i>Tetradlea virgata</i>	
<i>Thelymitra antennifera</i> (Vanilla Orchid)	
<i>Thelymitra graminea</i>	
<i>Thelymitra latiloba</i>	
<i>Thelymitra villosa</i> (Custard Orchid)	
<i>Thelymitra vulgaris</i>	
<i>Thomasia foliosa</i>	
<i>Thomasia macrocalyx</i>	
<i>Thomasia montana</i> (Hill Thomasia) (T)	
<i>Thryptomene australis</i> subsp. <i>australis</i>	
<i>Thysanotus hookeri</i>	
<i>Thysanotus scutellatum</i>	
<i>Thysanotus dichotomus</i> (Branching Fringe Lily)	
<i>Thysanotus manglesianus</i> (Fringed Lily)	
<i>Thysanotus patersonii</i>	
<i>Thysanotus tenellus</i>	
<i>Thysanotus teretifolius</i>	
<i>Thysanotus thyrsoides</i>	
<i>Trachymene cyanopetala</i>	
<i>Trachymene ornata</i> (Spongefruit)	
<i>Trachymene pilosa</i> (Native Parsnip)	
<i>Tribonanthes longipetala</i> (Branching Tiurndin)	
<i>Trichocline spathulata</i> (Native Gerbera)	
<i>Tricoryne elatior</i> (Yellow Autumn Lily)	X

<i>Tricoryne humilis</i>	
<i>Trifolium sp.</i>	
<i>Triglochin nana</i>	
<i>Triquetrella papillata</i>	
<i>Triquetrella paradoxa</i>	
<i>Trombidioidea sp. (SAP)</i>	
<i>Trombidioidea sp. 4 (SAP)</i>	
<i>Trymalium ledifolium</i>	
<i>Trymalium ledifolium var. rosmarinifolium</i>	
<i>Velleia trinervis</i>	
<i>Venatrix pullastra</i>	
<i>Verticordia acerosa var. preissii</i>	
<i>Verticordia bifimbriata</i>	
<i>Verticordia grandiflora (Claw Featherflower)</i>	
<i>Verticordia huegelii var. stylosa</i>	
<i>Verticordia plumosa var. brachyphylla</i>	
<i>Verticordia serrata var. serrata</i>	
<i>Viminaria juncea (Swishbush, Koweda)</i>	
<i>Wahlenbergia gracilentia (Annual Bluebell)</i>	
<i>Waitzia suaveolens (Fragrant Waitzia)</i>	X
<i>Xanthoparmelia antleriformis</i>	
<i>Xanthoparmelia congensis</i>	
<i>Xanthoparmelia elixii</i>	
<i>Xanthoparmelia flavescensireagens</i>	
<i>Xanthoparmelia furcata</i>	
<i>Xanthoparmelia notata</i>	
<i>Xanthoparmelia sp.</i>	
<i>Xanthoparmelia substrigosa</i>	
<i>Xanthoparmelia tasmanica</i>	
<i>Xanthorrhoea preissii (Grass tree, Palga)</i>	X
<i>Xanthosia candida</i>	
<i>Xanthosia ciliata</i>	
<i>Xanthosia singuliflora</i>	
<i>Xanthosia tomentosa (Lesueur Southern Cross) (P4)</i>	

APPENDIX B
FAUNA SPECIES RECORDED

Appendix B: Fauna species recorded at R19471 Nature Reserve in October 2019 and March 2020.

Fauna	Observed on site	Likely to occur onsite
* <i>Campylopus introflexus</i>		
* <i>Dacelo novaeguineae</i> (Laughing Kookaburra)	X	
* <i>Lythrum hyssopifolia</i> (Lesser Loosestrife)		
* <i>Mniobia cf. scarlatina</i> (SAP)		
* <i>Mus musculus</i> (House Mouse)		
<i>Acanthiza apicalis</i> (Broad-tailed Thornbill, Inland Thornbill)		
<i>Acanthiza chrysorrhoa</i> (Yellow-rumped Thornbill)		
<i>Acanthiza inornata</i> (Western Thornbill)		
<i>Acanthiza uropygialis</i> (Chestnut-rumped Thornbill)		
<i>Acanthorhynchus superciliosus</i> (Western Spinebill)		
<i>Acariformes sp.</i>		
<i>Accipiter cirrocephalus</i> (Collared Sparrowhawk)		
<i>Accipiter fasciatus</i> (Brown Goshawk)		
<i>Aegotheles cristatus</i> (Australian Owlet-nightjar)		
<i>Althenia australis</i>		
<i>Amblyomma triguttatum</i>		
<i>Anas gracilis</i> (Grey Teal)		
<i>Anas superciliosa</i> (Pacific Black Duck)		
<i>Anax papuensis</i>		
<i>Anhinga novaehollandiae</i> (Australasian Darter)		
<i>Anopheles annulipes s.l.</i>		
<i>Antechinus flavipes subsp. leucogaster</i> (Yellow-footed Antechinus, Mardo)		
<i>Anthochaera carunculata</i> (Red Wattlebird)		
<i>Anthochaera lunulata</i> (Western Little Wattlebird)		
<i>Anthus australis</i> (Australian Pipit)		
<i>Aphelia brizula</i>		
<i>Aphelia cyperoides</i>		
<i>Aphelia drummondii</i>		
<i>Aquila audax</i> (Wedge-tailed Eagle)		X
<i>Araneus eburniventris</i>		
<i>Araneus eburnus</i>		
<i>Ardea modesta</i> (great egret, white egret)		
<i>Artamus cinereus</i> (Black-faced Woodswallow)		
<i>Artamus cyanopterus</i> (Dusky Woodswallow)		
<i>Artoria flavimana</i>		
<i>Asterolasia squamuligera</i>		
<i>Austracantha minax</i>		
<i>Australoeucyclops darwini</i>		
<i>Austroagrion cyane</i>		
<i>Austrochiltonia subtenuis</i>		
<i>Austroparmelina conlabrosa</i>		
<i>Aythya australis</i> (Hardhead)		
<i>Backobourkia heroine</i>		
<i>Barbula calycina</i>		

<i>Barnardius zonarius</i>	X	
<i>Bartramia hampeana subsp. hampei</i>		
<i>Bartramia robusta</i>		
<i>Berosus sp.</i>		
<i>Bezzia sp. 1 (SAP)</i>		
<i>Bryum sp.</i>		
<i>Buellia cranfieldii</i>		
<i>Burhinus grallarius (Bush Stone-curlew)</i>		
<i>Cacomantis flabelliformis (Fan-tailed Cuckoo)</i>		
<i>Cacomantis pallidus (Pallid Cuckoo)</i>		
<i>Calyptorhynchus banksii (Red-tailed Black-Cockatoo)</i>		
<i>Calyptorhynchus banksii subsp. naso (Forest Red-tailed Black Cockatoo) T</i>		
<i>Calyptorhynchus baudinii (Baudin's Cockatoo, White-tailed Long-billed Black)</i>		X
<i>Calyptorhynchus latirostris (Carnaby's Cockatoo, White-tailed Short-billed Black)</i>		X
<i>Calyptorhynchus sp. (white-tailed black cockatoo) T</i>		
<i>Candonocypris novaezelandiae</i>		
<i>Ceratodon purpureus subsp. convolutus</i>		
<i>Ceratopogonidae sp.</i>		
<i>Cercartetus concinnus (Western Pygmy-possum, Mundarda)</i>		
<i>Cercophonius granulatus</i>		
<i>Cercophonius sulcatus</i>		
<i>Chalinolobus gouldii (Gould's Wattled Bat)</i>		X
<i>Chenonetta jubata (Australian Wood Duck, Wood Duck)</i>		
<i>Cherax quinquecarinatus</i>		
<i>Chiloscyphus semiteres var. semiteres</i>		
<i>Chironominae sp.</i>		
<i>Chironomus aff. alternans (V24) (CB)</i>		
<i>Chrysococcyx basalis (Horsfield's Bronze Cuckoo)</i>		
<i>Chrysothrix occidentalis</i>		
<i>Circus approximans (Swamp Harrier)</i>		
<i>Cladia aggregata</i>		
<i>Cladia beauleholei</i>		
<i>Cladia corallaizon</i>		
<i>Cladia ferdinandii</i>		
<i>Cladia muelleri</i>		
<i>Cladia sullivanii</i>		
<i>Colluricincla harmonica (Grey Shrike-thrush)</i>		
<i>Commersonia corniculata</i>		
<i>Coracina novaehollandiae (Black-faced Cuckoo-shrike)</i>		X
<i>Corduliidae sp.</i>		
<i>Corvus coronoides (Australian Raven)</i>		X
<i>Coturnix pectoralis (Stubble Quail)</i>		
<i>Cracticus nigrogularis (Pied Butcherbird)</i>		X
<i>Cracticus tibicen (Australian Magpie)</i>	X	
<i>Cracticus tibicen subsp. dorsalis (White-backed Magpie)</i>		
<i>Cracticus torquatus (Grey Butcherbird)</i>		

<i>Crenadactylus ocellatus</i> (Clawless Gecko)		
<i>Crenadactylus ocellatus</i> subsp. <i>ocellatus</i> (Clawless Gecko)		
<i>Crinia pseudinsignifera</i> (Bleating Froglet)		
<i>Cryptoblepharus buchananii</i>		
<i>Cryptoblepharus plagiocephalus</i>		
<i>Ctenophorus ornatus</i> (Ornate Crevice-Dragon)		
<i>Ctenotus schomburgkii</i>		
<i>Culex</i> sp.		
<i>Culicoides</i> sp.		
<i>Cygnus atratus</i> (Black Swan)		
<i>Daphoenositta chrysoptera</i> (Varied Sittella)		
<i>Dasyurus geoffroyi</i> (Chuditch, Western Quoll) T		
<i>Delma fraseri</i> (Fraser's Legless Lizard)		
<i>Delma grayii</i>		
<i>Dicaeum hirundinaceum</i> (Mistletoebird)		
<i>Dichopogon capillipes</i>		
<i>Dicrotendipes conjunctus</i>		
<i>Dicrotendipes</i> sp. A (V47) (SAP)		
<i>Didymodon australasiae</i>		
<i>Didymodon torquatus</i>		
<i>Dingosa simsoni</i>		
<i>Diplodactylus granariensis</i>		
<i>Diplodactylus granariensis</i> subsp. <i>granariensis</i>		
<i>Diploschistes muscorum</i>		
<i>Diploschistes thunbergianus</i>		
<i>Ditrichum difficile</i>		
<i>Dolichopodidae</i> sp.		
<i>Dromaius novaehollandiae</i> (Emu)		
<i>Dytiscidae</i> sp.		
<i>Eccremidium arcuatum</i>		
<i>Edelia vittata</i>		
<i>Egernia napoleonis</i>		
<i>Egretta novaehollandiae</i>		
<i>Elanus axillaris</i>		
<i>Elseyornis melanops</i> (Black-fronted Dotterel)		
<i>Enchytraeidae</i> sp.		
<i>Entosthodon radians</i>		
<i>Eolophus roseicapillus</i>		
<i>Eopsaltria australis</i> subsp. <i>griseogularis</i> (Western Yellow Robin)		
<i>Eopsaltria georgiana</i> (White-breasted Robin)		
<i>Ephydriidae</i> sp. 3 (SAP)		
<i>Ericksonella saccharata</i>		
<i>Ericomyrtus serpyllifolia</i>		
<i>Falco berigora</i> (Brown Falcon)		
<i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)		
<i>Falco longipennis</i> (Australian Hobby)		
<i>Falco peregrinus</i> (Peregrine Falcon) S		
<i>Falcunculus frontatus</i> subsp. <i>leucogaster</i> (Western Shrike-tit,		

<i>Crested Shrike-tit</i>		
<i>Fissidens linearis</i> var. <i>linearis</i>		
<i>Fissidens megalotis</i>		
<i>Fissidens taylorii</i> var. <i>taylorii</i>		
<i>Flavoparmelia ferax</i>		
<i>Flavoparmelia marchantii</i>		
<i>Flavoparmelia rutidota</i>		
<i>Fulica atra</i> (<i>Eurasian Coot</i>)		
<i>Funaria hygrometrica</i>		
<i>Gallirallus philippensis</i> subsp. <i>mellori</i> (<i>Buff-banded Rail</i>)		
<i>Gavicalis virescens</i> (<i>Singing Honeyeater</i>)		
<i>Gehyra variegata</i>		
<i>Gemmabryum chryseuron</i>		
<i>Gemmabryum inaequale</i>		
<i>Geopelia cuneata</i> (<i>Diamond Dove</i>)		
<i>Geranium retrorsum</i>		
<i>Gerygone fusca</i> (<i>Western Gerygone</i>)		
<i>Gigaspermum repens</i>		
<i>Glyciphila melanops</i> (<i>Tawny-crowned Honeyeater</i>)		
<i>Gnephosis drummondii</i>		
<i>Grallina cyanoleuca</i> (<i>Magpie-lark</i>)		
<i>Grimmia laevigata</i>		
<i>Grimmia pulvinata</i> var. <i>africana</i>		
<i>Grimmia trichophylla</i>		
<i>Habronestes bradleyi</i>		
<i>Haliastur sphenurus</i> (<i>Whistling Kite</i>)		
<i>Hedwigidium integrifolium</i>		
<i>Heleioporus albopunctatus</i> (<i>Western Spotted Frog</i>)		
<i>Heleioporus eyrei</i> (<i>Moaning Frog</i>)		
<i>Hemicordulia tau</i>		
<i>Hemicorduliidae</i> sp.		
<i>Hesperoedura reticulata</i>		
<i>heterosticta heterosticta</i>		
<i>Hieraaetus morphnoides</i> (<i>Little Eagle</i>)		
<i>Hirundo neoxena</i> (<i>Welcome Swallow</i>)		
<i>Homalosciadium homalocarpum</i>		
<i>Hydromys chrysogaster</i> (<i>Water-rat, Rakali</i>) (P4)		
<i>Hydrophilidae</i> sp.		
<i>Idiommata blackwalli</i>		
<i>Idiosoma nigrum</i> (<i>Shield-backed Trapdoor Spider</i>) (T)		
<i>Ischnura aurora aurora</i>		
<i>Ischyrodon lepturus</i>		
<i>Isoetes australis</i>		
<i>Isoetes drummondii</i> (<i>Quillwort</i>)		
<i>Kiefferulus intertinctus</i>		
<i>Koenikea nr australica</i> (<i>verrucosa</i>)		
<i>Lalage tricolor</i> (<i>White-winged Triller</i>)		
<i>Lawrencella rosea</i>		

<i>Lecidea</i> sp.		
<i>Leipoa ocellata</i> (Malleefowl) (T)		
<i>Lepraria dibenzofuranica</i>		
<i>Lepraria sekikaica</i>		
<i>Lerista distinguenda</i>		
<i>Libellulidae</i> sp.		
<i>Lichenostomus leucotis</i> (White-eared Honeyeater)		
<i>Lichmera indistincta</i> (Brown Honeyeater)		
<i>Lichmera indistincta</i> subsp. <i>indistincta</i> (Brown Honeyeater)		
<i>Limbodessus inornatus</i>		
<i>Limnodynastes dorsalis</i> (Western Banjo Frog)		
<i>Limnoxenus zelandicus</i>		
<i>Liopholis multiscutata</i> (Bull Skink)		
<i>Macrogyrus angustatus</i>		
<i>Macropus fuliginosus</i> (Western Grey Kangaroo)		X
<i>Macrotis lagotis</i> (Bilby, Dalgyte, Ninu) (T)		
<i>Malacorhynchus membranaceus</i> (Pink-eared Duck)		
<i>Malurus pulcherrimus</i> (Blue-breasted Fairy-wren)		
<i>Malurus splendens</i> (Splendid Fairy-wren)		
<i>Melanodryas cucullata</i> (Hooded Robin)		
<i>Melithreptus brevirostris</i> (Brown-headed Honeyeater)		
<i>Melithreptus brevirostris</i> subsp. <i>leucogenys</i> (Brown-headed Honeyeater)		
<i>Menetia greyii</i>		
<i>Merops ornatus</i> (Rainbow Bee-eater)		
<i>Mesocyclops brooksi</i>		
<i>Mesostigmata</i> sp. 2		
<i>Microcarbo melanoleucos</i>		
<i>Molycrion quadricauda</i>		
<i>Morelia spilota</i> subsp. <i>imbricata</i> (Carpet Python)		
<i>Morethia lineocellata</i>		
<i>Morethia obscura</i>		
<i>Mycena clarkeana</i>		
<i>Myiagra inquieta</i> (Restless Flycatcher)		
<i>Myobatrachus gouldii</i> (Turtle Frog)		
<i>Myrmecobius fasciatus</i> (Numbat, Walpurti) (T)		
<i>Necterosoma regulare</i>		
<i>Neobatrachus pelobatoides</i> (Humming Frog)		
<i>Neophema elegans</i> (Elegant Parrot)		
<i>Ninox connivens</i> (Barking Owl)		
<i>Nitocra</i> sp. 5 (<i>nr reducta</i>) (SAP)		1
<i>Notamacropus eugenii</i> subsp. <i>derbianus</i> (Tammar Wallaby, Tammar) P4		
<i>Notamacropus irma</i> (Western Brush Wallaby) (P4)		
<i>Ochrolechia subathallina</i>		
<i>Ocyphaps lophotes</i> (Crested Pigeon)		
<i>Oecetis</i> sp.		
<i>Oligochaeta</i> sp.		
<i>Oniscidae</i> sp.		

<i>Orthetrum caledonicum</i>		
<i>Orthoclaadiinae sp.</i>		
<i>Oryctolagus cuniculus</i> (European Rabbit)		X
<i>Pachycephala rufiventris</i> (Rufous Whistler)		
<i>Palaemonetes australis</i>		
<i>Palaemonidae sp.</i>		
<i>Pannoparmelia wilsonii</i>		
<i>Panus fasciatus</i>		
<i>Paramerina levidensis</i>		
<i>Paranais litoralis</i>		
<i>Paraporphidia glauca</i>		
<i>Parastacidae sp.</i>		
<i>Pardalotus punctatus</i> (Spotted Pardalote)		
<i>Pardalotus striatus</i> (Striated Pardalote)		
<i>Parietaria debilis</i> (Pellitory)		
<i>Pauridia glabella</i>		
<i>Pauridia glabella var. glabella</i>		
<i>Petrochelidon nigricans</i> (Tree Martin)		
<i>Petroica boodang</i> (Scarlet Robin)	X	
<i>Petroica goodenovii</i> (Red-capped Robin)		
<i>Phaeotrametes decipiens</i>		
<i>Phaps chalcoptera</i> (Common Bronzewing)		X
<i>Phaps elegans</i> (Brush Bronzewing)		
<i>Phascogale calura</i> (Red-tailed Phascogale, Kenngoor)		
<i>Pheladenia deformis</i>		
<i>Phellinus rimosus</i>		
<i>Phylidonyris niger</i> (White-cheeked Honeyeater)		
<i>Phylidonyris novaehollandiae</i> (New Holland Honeyeater)		
<i>Phyllangium paradoxum</i>		
<i>Phyllota gracilis</i>		
<i>Physcia jackii</i>		
<i>Pilostyles hamiltonii</i>		
<i>Platalea flavipes</i> (Yellow-billed Spoonbill)		
<i>Platycercus icterotis</i> (Western Rosella)		
<i>Platycercus icterotis subsp. xanthogenys</i> (Western Rosella (inland)) P4		
<i>Platycercus spurius</i> (Red-capped Parrot)		
<i>Platycercus zonarius subsp. semitorquatus</i> (Twenty-eight Parrot)		
<i>Platynectes decempunctatus var polygrammus</i>		
<i>Platysace teres</i>		
<i>Pleurosorus rutifolius</i> (Blanket Fern)		
<i>Podargus strigoides</i> (Tawny Frogmouth)		
<i>Podargus strigoides subsp. brachypterus</i> (Tawny Frogmouth)		
<i>Pogona minor</i> (Dwarf Bearded Dragon)		
<i>Pogona minor subsp. minor</i> (Dwarf Bearded Dragon)		
<i>Polytelis anthopeplus</i> (Regent Parrot)		
<i>Pomatostomus superciliosus</i> (White-browed Babbler)		
<i>Pomatostomus superciliosus subsp. ashbyi</i> (White-browed Babbler (western wheatbelt))		

<i>Poranthera ericoides</i> (Heath Poranthera)		
<i>Poranthera microphylla</i> (Small Poranthera)		
<i>Porzana fluminea</i> (Australian Spotted Crake)		
<i>Procladius paludicola</i>		
<i>Pseudonaja affinis</i> subsp. <i>affinis</i> (Dugite)		
<i>Pseudonaja mengdeni</i> (Western Brown Snake)		
<i>Pseudophryne guentheri</i> (Crawling Toadlet)		
<i>Purpureicephalus spurius</i>	X	
<i>Quinetia urvillei</i>		
<i>Racomitrium crispulum</i>		
<i>Ramalina inflata</i> subsp. <i>australis</i>		
<i>Ramboldia stuartii</i>		
<i>Rhipidura albiscapa</i> (Grey Fantail)		
<i>Rhipidura leucophrys</i> (Willie Wagtail)	X	
<i>Rosulabryum billarderii</i>		
<i>Rosulabryum campylothecium</i>		
<i>Ruppia polycarpa</i>		
<i>Sarscypridopsis aculeata</i>		
<i>Schizymenium bryoides</i>		
<i>Scirtidae</i> sp.		
<i>Scotorepens balstoni</i> (Inland Broad-nosed Bat)		
<i>Sematophyllum homomallum</i>		
<i>Sematophyllum subhumile</i> var. <i>contiguum</i>		
<i>Senecio pinnatifolius</i> var. <i>pinnatifolius</i>		
<i>Sericornis frontalis</i> (White-browed Scrubwren)		
<i>Simoselaps bertholdi</i> (Jan's Banded Snake)		
<i>Simuliidae</i> sp.		
<i>Simulium ornatipes</i>		
<i>Siphula coriacea</i>		
<i>Smicrornis brevirostris</i> (Weebill)		
<i>Sminthopsis dolichura</i> (Little long-tailed Dunnart)		
<i>Sminthopsis gilberti</i> (Gilbert's Dunnart)		
<i>Sminthopsis griseoventer</i> (Grey-bellied Dunnart)		
<i>Spartochloa scirpoidea</i>		
<i>Stratiomyidae</i> sp.		
<i>Strepera versicolor</i> (Grey Currawong)	X	
<i>Streptopelia senegalensis</i> (Laughing Turtle-Dove) Y		
<i>Syntrichia pagorum</i>		
<i>Tabanidae</i> sp.		
<i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)		
<i>Tachyglossus aculeatus</i> (Short-beaked Echidna)		X
<i>Tadorna tadornoides</i> (Australian Shelduck, Mountain Duck)		
<i>Tanypodinae</i> sp.		
<i>Tanytarsus fuscithorax/semibarbitarsus</i>		
<i>Tasmanicosa leuckartii</i>		
<i>Tenebrionidae</i> sp.		
<i>Tephromela atra</i>		

<i>Tetrapora preissiana</i>		
<i>Tiliqua rugosa</i>		
<i>Todiramphus sanctus</i> (Sacred Kingfisher)		
<i>Trichosurus vulpecula subsp. vulpecula</i> (Common Brushtail Possum)		
<i>Triquetrella papillata</i>		
<i>Triquetrella paradoxa</i>		
<i>Trombidioidea sp.</i> (SAP)		
<i>Trombidioidea sp. 4</i> (SAP)		
<i>Turnix varius</i> (Painted Button-quail)		
<i>Tyto alba subsp. delicatula</i> (Barn Owl)		
<i>Underwoodisaurus milii</i> (Barking Gecko)		
<i>Urodacus novaehollandiae</i>		
<i>Usnea inermis</i>		
<i>Usnea scabrida</i>		
<i>Utricularia multifida</i>		
<i>Utricularia tenella</i>		
<i>Varanus gouldii</i> (Bungarra or Sand Monitor)		
<i>Venator immansueta</i>		
<i>Vespadelus regulus</i> (Southern Forest Bat)		
<i>Vulpia myuros forma megalura</i>		
<i>Vulpia myuros forma myuros</i>		
<i>Vulpia sp.</i>		X
<i>Weissia controversa</i>		
<i>Westralunio carteri</i> (Carter's Freshwater Mussel) (T)		
<i>Wurmbea dioica subsp. alba</i>		
<i>Wurmbea sinora</i>		
<i>Wurmbea tenella</i> (Eight Nancy)		
<i>Xylographa isidiosa</i>		
<i>Zosterops lateralis</i> (Grey-breasted White-eye, Silvereye)		