

# **FLORISTICS OF RESERVES AND BUSHLAND AREAS ON THE DANDARAGAN PLATEAU (SYSTEM 6)**



## **PART 1: FLORISTICS OF BARRACCA NATURE RESERVE**

by

GJ Keighery, BJ Keighery, VM Longman and Wildflower Society of WA (Inc.) 2013



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Cover photograph: The wetlands on sandy clayflats in Barracca Nature Reserve in spring 2009. Top: Scattered Wandoo over *Melaleuca* shrubland and herbland dominated *Brachyscome pusilla*. Bottom herbland with flowering *Borya scirpoidea* (bottom left corner) *Brachyscome pusilla* (white daisy), *Drosera gigantea* subsp. *gigantea*, *Philydrella pygmaea* subsp. *pygmaea* (dark yellow flowers), *Thelymitra antennifera* (yellow orchid) and *Tribonanthes australis* (tall white).

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## SUMMARY

This report brings together current knowledge on the vegetation and flora of Barracca Nature Reserve. In 2010 as part of the Wildflower Society of WA (Inc.) Bushland Plant Survey Programme (a joint Society and Department of Environment and Conservation Volunteer Programme), ten permanently located 10X10m quadrats were established in the Barracca Nature Reserve. Information from these quadrats, and a number of visits spanning four years by the authors, are the basis for most of the information in this report.

The Reserve was included in the System 6 report (DCE 1983) as C26 and is an A class reserve of 17.4ha. The Reserve well deserves its inclusion in System 6 having:

- a diverse and unusual complex of three upland and four wetland plant communities;
- unmapped Conservation category wetlands;
- rare plant communities;
- highly intact communities, with few weeds;
- an unusually diverse flora (317 species in 17.4ha); and
- a large number of conservation significant species.

While the Reserve is on the Dandarragan Plateau it shows greater affinities to the communities and flora of the Swan Coastal Plain.



Figure 1: A view west across the Wandoo woodlands in Barracca Nature Reserve wetland in spring, after good rains: *Hypocalymma angustifolium* (white), *Isopogon dubius* (pink) and *Verticordia acerosa* var. *preissii* (yellow).

## 1 BACKGROUND

The vegetation and flora of the Swan Coastal Plain has been the subject of a series of studies, reports and publications. This information has been used as a basis for ongoing conservation planning on the Swan Coastal Plain as part of three projects – the System 6 and part System 1 Update, *Bush Forever* and Swan Bioplan. The relationship between these projects, conservation plans and major vegetation and flora survey projects on the Swan Coastal Plain is found in Webb *et al.* (2010). Each of these projects has gathered new information on vegetation and flora. Most of these investigations have been done through a cooperative project between the Department of Environment and Conservation (formerly CALM), the Office of the EPA (and its previous iterations DEP, DEWACP, DE and DEC) and the Wildflower Society of WA (Inc.) as part of the Society's Bushland Plant Survey Programme. This report is part of a series on the flora and vegetation of bushland areas on the Swan Coastal Plain begun in 1991 (Keighery and Keighery 1991), and is the first of these reports on bushland areas on the Dandaragan Plateau.

This report brings together current knowledge on the vegetation and flora Barracca Nature Reserve (Reserve). The Reserve was included in the System 6 report (DCE 1983) as C26. The System 6 report described the Reserve as containing: a wet sandy loam and clayflat dominated by Marri (*Eucalyptus* or *Corymbia calophylla*), Christmas Tree (*Nuytsia floribunda*), Bull Banksia (*Banksia grandis*) and Wandoo (*Eucalyptus wandoo*) over a species rich shrubland and herbland (Cover and Figure 1&3); and a sandy rise to the west dominated by Slender or Candlestick Banksia (*Banksia attenuata*), Firewood or Menzies' Banksia (*B. menziesii*) and Prickly Bark (*Eucalyptus todtiana*) (Figure 2). The report stated that '*There is no other Reserve in the District with the same association of species and richness of flora.*' However, until now, there has been no detailed flora and vegetation work on the Reserve.

Barracca Nature Reserve is an A class reserve of 17.4 hectares on the western side of Great Northern Highway, about 20 kilometres north of Bullsbrook (Map 1). The Reserve is near the southern margin of the Dandaragan Plateau. The Dandaragan Plateau lies to the west of the Darling Scarp and is part of the Swan Coastal Plain Interim Biogeographic Region (SWA IBRA, Department of the Environment and Water Resources 2007). Two subregions are recognised SWA IBRA, the Dandaragan Plateau (SWA 1) and the Swan Coastal Plain subregion (SWA 2).

There is little specific area information available on the vegetation and flora of reserves and bushland of the Plateau. Keighery (2003) surveyed the vascular flora of Burroloo Well Nature Reserve; and five *Bush Forever* Sites including areas of Dandaragan Plateau are described in Volume 2 of *Bush Forever* (Government of WA 2000). The vegetation and flora in Bullsbrook Nature Reserve (part of *Bush Forever* Site 292 Bullsbrook Nature Reserve and adjacent Bushland) is described in Keighery *et al.* (1997). The Bullsbrook Nature Reserve, straddles the interface, between the Swan Coastal Plain and the Dandaragan Plateau.



Figure 2: Banksia woodland on the sandy rise adjacent to the wetland.

## 2 METHODS AND LIMITATIONS

### 2.1 General Methods, Terminology and Definition

Detailed survey work after Keighery (1994) was performed in the Reserve in 2009 and 2012 (vegetation descriptive terms from Keighery 1994 in Appendix 1).

In 2010 the reserve was visited by a group of conservation volunteers as part of the Western Australian Wildflower Society Bushland Plant Survey Program. Ten quadrats are located with four metal fence droppers in the Reserve (Figure 2, Map 2 and Appendix 2) to sample the range of plant communities identified using aerial photographs and field interpretation. Quadrats were described and sampled once in early October 2010 during a Bushland Plant Survey session (Appendix 2 and 3b). Further sampling in 2010 was not possible as the area dried and the second sampling was deferred in 2011 and 2012 as the Reserve remained drought affected. Four other general transect surveys were done between 2009 and 2012 by the authors of this report.

The vegetation and flora of the Reserve are mapped, listed, described and discussed after Keighery (1994). Terminology used to describe the vegetation and conservation status of plant communities and flora are defined in Appendix 1.



Figure 3: Well protected volunteers observing and recording information on quadrat BARR01. The orange rope defines the 10X10m area. Note the line of cars in the background along the highway. Volunteers come to survey sessions in their own vehicles. Safe parking is required for up to 20 cars. This is the wet flat described in the System 6 report, note frequency of trees appears to have declined and *Banksia grandis* was not observed as a feature of these flats in 2009 – 12. Photo Mark Brundrett.

### 3 GEOLOGY, LANDFORMS AND SOILS

The Reserve is on the southern Dandaragan Plateau and is located on the interface of two systems; the Reagan and Mogumber (DAFWA 2007). The Reagan System is a valley unit with gentle slopes from the Dandaragan Plateau to the Pinjarra Plain. The soils are generally brown, yellow and pale sands that may be shallow to very deep with clay or duricrust underlying. The Mogumber System surrounds the area of the Reagan System in Reserve on the western and northwestern side. The Mogumber System is an upland unit with gentle to moderate sloping sandplain with laterite ridges. The soils are generally pale to yellow clayey sand with gravel and laterised ridges. The areas of the Mogumber and Reagan Systems in the Reserve are described below

#### Reagan System

This area is mapped as wetland and wetland interface (Map 2, 3&4) and is best matched to the DAFWA 2007 Reagan 5 and 6 Subsystems. The damp sandy margins of the wetland matching the Reagan 6 Subsystem described in DAFWA as having very gently inclined footslope seepage areas with imperfectly drained grey siliceous sands or pale yellow-brown sands. The wet valley flats are then considered to be from the Reagan 5 Subsystem but from an as yet undescribed phase of sandy clays over ironstone. These areas are currently provisionally mapped as the phase 1x of the Reagan System. In the Reserve the clay and ironstone duricrust are exposed.

#### Mogumber System

In the Reserve yellow clayey sands, with gravel and without gravel are found as well as small laterised ridge. Two subsystems are mapped in the area from the Mogumber System: Mb\_3 being gently inclined undulating slopes and minor drainage head-waters with deep colluvial grey siliceous or bleached sands; and Mb\_4 being gently to moderately inclined slopes shallow gravelly sands. The former underlies the Banksia woodlands and the latter underlies the Jarrah woodlands to the west and the Marri/Banksia woodlands to the NE. However the small scale soils and landform mapping does not map shallow gravelly sands under the Jarrah woodland and maps the extent of these on the east in the areas of the wetlands. The scale of the soils and landscape mapping accounts for the differences.

Where the two systems interface there is a line of springs formed from groundwater seepage. Water from the Reserve's wetland and the wetland to the west form the headwaters of Rocky Creek (Map 4), which flows into Chandala Brook and then Ellen Brook, the entire Reserve being in the Ellen Brook Catchment. The NW wetland is mapped as a Conservation category wetland but the wetlands in the Reserve are not mapped.



Figure 4: A view from the edge of the Banksia woodland, looking west across the Jarrah woodlands on the sands and laterites.

## 4 VEGETATION

### 4.1 Native Vegetation

Major vegetation of the plateau are woodlands to open forests dominated by Marri, Jarrah (*Eucalyptus marginata*), Wandoo, Powder Bark Wandoo (*E. accedens*) or combinations of these; low woodlands dominated by Jarrah, Prickly Bark (*E. todtiana*), Candlestick Banksia and Menzies' Banksia or species rich shrublands on laterite. Wetlands usually have *Melaleuca* shrublands or herbfields while watercourses have woodlands dominated by Flooded Gum (*E. rudis*) and *Melaleuca raphiophylla*.

Contiguous with the Reserve on the southern and most of the eastern sides are 10 to 30m strips of native vegetation (?road reserve). To the west is a partially cleared private lot that joins the reserve to a C class reserve for public recreation managed by the Shire of Chittering. This Reserve is naturally vegetated and mostly upland with a small amount of wetland vegetation on the eastern margin. This wetland vegetation is part of a larger conservation category wetland. On the west and north of these areas are private lots with substantive areas of native vegetation.

### 4.2 Vegetation Map

As described in the System 6 report the Reserve supports upland and wetland units. The wet sandy loam and clayflat is currently dominated by scattered to clumped Marri and Wandoo (Cover and Figures 1, 3&4) in the east and southeast. On the upland sandy rise to the west of the wetland Candlestick Banksia, Menzies' Banksia and Prickly Bark dominate (Figure 2) but west of this the sandy rise is dominated by Jarrah (Figure 4). Patches of Marri dominated woodland are found in the wetland and upland areas. That is the Reserve supports three principal communities rather than the two described in the System report. These are described in more detail below and their extent is shown on Map 2. Complete descriptions and photographs of each quadrat are included in Appendix 2.

#### 4.2.1 Wetlands

Three vegetation units are mapped in the wetland (Figures 1). Six quadrats are located in the wetland.

##### 4.2.1.1 Wandoo woodland (Map 2, Unit WW; Appendix 2 Quadrat 1; Figure 3)

While mapped the Wandoo woodland merges with adjacent wetland units and scattered Wandoo are found in the Wetland Mosaic (quadrats 2 and 6). One quadrat was located in this unit, being: *Eucalyptus wandoo* Open Woodland, over *Hypocalymma angustifolium* and *Hakea erinacea* Open Low Heath, over *Borya sphaerocephala* Open Herbland, and *Caustis dioica* Sedgeland.

##### 4.2.1.2 Wetland Mosaic (Map 2, Unit WM; Appendix 2 Quadrats 2, 3 and 7; Cover and Figure 8)

This area is mapped as a mosaic as the units described from three quadrats in this unit are variable in dominance and structure (see below) but similar in overall species composition. Myrtaceae shrubs dominate all three quadrats. *Melaleuca* Shrubland was mapped in one portion of the wetland (Map 2 and below) but patches of this unit extend into the area mapped as Wetland Mosaic.

- Quadrat 2 - *Kunzea recurva* Open Tall Shrubland, over *Verticordia densiflora* var. *densiflora* Open Low Heath, over *Vulpia myuros* Grassland, and *Hyalosperma cotula* and *Tribonanthes australis* Closed Herbland, and *Lepidosperma viscidum* Open Sedgeland.
- Quadrat 3 - *Melaleuca viminea* and *Kunzea recurva* Open Scrub, over *Verticordia densiflora* var. *densiflora* Low Shrubland, over *Briza maxima* Very Open Grassland, and *Drosera gigantea* subsp. *gigantea* and *Hyalosperma cotula* Herbland, and *Centrolepis aristata* Sedgeland.
- Quadrat 7 *Kunzea recurva*, *Melaleuca osullivanii*, *Melaleuca viminea* and *Verticordia plumosa* var. *brachyphylla* Open Heath, over *Drosera gigantea* subsp. *gigantea* and *Tribonanthes australis* Very Open Herbland.



#### 4.2.1.3 ***Melaleuca* shrubland** (Map 2, Unit MeS; Appendix 2 Quadrat 6; Cover)

Quadrat 6 lies in this unit being: *Melaleuca viminea*, *Melaleuca osullivanii* and *Kunzea recurva* Open Scrub, over \**Briza maxima* and *Polypogon tenellus* Very Open Grassland, and *Drosera gigantea* subsp. *gigantea*, *Hyalosperma cotula*, *Burchardia multiflora* and *Philydrella pygmaea* subsp. *pygmaea* Closed Herbland. As outlined above smaller areas of this unit are found in the Wetland Mosaic. This unit is floristically similar to the Wetland Mosaic.

#### 4.2.1.4 ***Melaleuca preissiana* woodland** (Map 2, Unit MpW; Appendix 2 Quadrat 9)

This unit is on a slight slope and is apparently fed by water that surfaces when the sand dune meets the clay soils of the flat wetlands. The unit is described from a single quadrat being: *Melaleuca preissiana* Open Woodland, over *Xanthorrhoea preissii* Open Shrubland, over *Verticordia densiflora* var. *densiflora* Closed Low Heath, over *Hypolaena exsulca* and *Lepidosperma squamatum* Sedgeland, with *Cassytha glabella* Climbers. In some areas of this unit *Melaleuca preissiana* is scattered and does not form a layer.

#### 4.2.1.5 **Wetland Type and Management Category**

The Reserve flat wetlands should be mapped as palusplain (units WW, WM and MeS) and the slope wetlands as palusslope (unit MpW). Both wetland areas should be given a Conservation Management category. The vegetation of the Reserve wetland and the western wetland (Map 4) is freshwater dependant indicating that water from these wetlands contributes to the quality of water in the Ellen Brook.

### 4.2.2 **Upland (or dryland)**

Four quadrats were located in the uplands in two units, Jarrah Woodland and Banksia Woodland. The Jarrah woodland cannot be seen from the east being obscured by the Banksia woodland. This most likely accounts for its omission from the System 6 report.

#### 4.2.2.1 **Jarrah woodland** (Map 2, Unit JW; Appendix 2 Quadrats 4 and 5; Figure 4)

This unit contained two landforms. On a small area of shallow sand over laterite was *Eucalyptus marginata* subsp. *thalassica* and *Corymbia calophylla* Low Woodland, over *Xanthorrhoea acanthostachya* Shrubland, over *Hibbertia hypericoides*, *Calothamnus sanguineus* and *Hakea stenocarpa* Closed Low Heath, over *Mesomelaena tetragona* and *Tetraria octandra* Open Sedgeland (5). On the deeper sands around this area of exposed laterites was *Eucalyptus marginata* subsp. *thalassica* Open Low Forest, over *Xanthorrhoea acanthostachya* Shrubland, over *Hibbertia hypericoides* and *Calothamnus sanguineus* Open Low Heath, over a mixed Very Open Herbland, and *Tetraria octandra*, *Lepidosperma squamatum* and *Mesomelaena tetragona* Open Sedgeland (4).

#### 4.2.2.2 **Banksia woodland** (Map 2, Unit BW; Appendix 2 Quadrats 6 and 10; Figure 2)

The deepest sands support Banksia forest to woodland with a variable understorey. This unit was sampled in two quadrats: *Banksia attenuata* and *B. menziesii* Open Low Forest, over *Eremaea pauciflora* and *Xanthorrhoea brunonis* Open Heath, over mixed Open Low Heath, over *Dampiera linearis* Very Open Herbland, and *Mesomelaena pseudostygia* Open Sedgeland (6); and *B. attenuata*, *B. menziesii* and *B. ilicifolia* Open Low Forest, over *Adenanthos cygnorum* Tall Shrubland, over *Eremaea pauciflora*, *Scholtzia involucrata* and *Xanthorrhoea preissii* Closed Low Heath, over *Dasyopogon bromeliifolius*, *Phlebocarya ciliata* and *Patersonia occidentalis* var. *occidentalis* Herbland (10)

#### 4.2.2.3 **Marri and Banksia woodland** (Map 2, Unit M/BW)

An additional woodland unit is mapped in the NE of the Reserve, this is dominated by Marri and Banksia species. No quadrat was located in this unit.

### 4.3 Floristic Diversity and Community Types

Of the ten quadrats sampled in the Reserve the most floristically diverse were the Jarrah woodlands, with 67 (BARR04) and 55 (BARR05) native taxa recorded in the quadrats. It is expected that on analysis these would be allied to Swan Coastal Plain floristic community type (SWAFCT) 3 (Gibson *et al.* 1994 and Government of WA 2000).

The *Banksia* woodlands were the next most diverse with 49 (BARR08) and 40 (BARR10) native taxa recorded in the quadrats. The *Banksia* woodlands are unusual and they appear related to SWAFCT 28 (Gibson *et al.* 1994 and Government of WA 2000) however, it is expected that analysis of *Banksia* woodlands on the entire Swan Coastal Plain (SWA1 and SWA2) will identify a series of groups on SWA1. It is very likely that the type in this Reserve will be rare.

The wetlands quadrats with 25 to 37 taxa were diverse for wetland communities but less diverse than expected. Similar wetlands sampled for Gibson *et al.* 1994 and Government of WA 2000 had an average of 51 taxa per quadrat. However with further sampling in a wet year this diversity should increase. On analysis of the wetland quadrat data it is expected that would be related to wetland two SWAFCTs being: SWAFCT 08 (WW, WM, and MeS) and SWAFCT 05 (MPW).

SWAFCTs 3 and 8 (list code SCP08) are state listed threatened ecological communities (TECs, DEC 2012). SWAFCT 3 contains three types 3a, 3b and 3c (list codes SCP3a, 3b&3c), all three types are state listed TECs (DEC 2012). SWAFCT3a and 3c and SWAFCT 8 (included in the 'Claypans of the Swan Coastal Plain') are federally listed (DSEWPC 2013). Continuing analysis of the communities of the Dandaragan Plateau (SWA1) is expected to identify related groups but all of the SWA clayflat wetlands are federally listed rare communities.

### 4.4 Vegetation Condition and Non-native Taxa

Overall the vegetation in the Reserve is in Excellent to Very Good condition (Appendix 2 after Table 2 in Appendix 1). There is significant localised disturbance in and adjacent to the Reserve (southern and eastern boundary, see Unit D Table 1 Appendix 3) where it abuts cleared/disturbed areas. The boundaries to the west and north are less affected, as there is some native vegetation to the west, and intact bushland to the north. These areas of native vegetation effectively buffer the Reserve from weed invasion.

Within the Reserve the highest frequency of weeds and tree deaths are in the Wetland Mosaic where condition ranges from Very Good to Excellent. Annual grasses such as *\*Vulpia myuros* and *\*Briza maxima* are dominants in the grass layer in some of the quadrats in this vegetation unit.

The System 6 report described Marri, Christmas Tree, Bull *Banksia* and Wandoo as being dominant (open woodland) in the wetland (section 1). Bull *Banksia* was not recorded in the wetland, and if it is present it must be in low numbers (Table 1 Appendix 3). Marri, Christmas Tree and Wandoo were found in the wetland with Wandoo being a dominant in some of the area. Dead Wandoo were observed in the *Melaleuca* shrubland unit (Quadrat 06) and dead Marri and Wandoo were observed in the western side of the wetland (Figure 5a). In general it appears that the density of trees in the wetland has declined. The changed densities of trees could be related to a lowering of the watertable, salination, flooding, disease and/or fire. All five factors could contribute to these changes. In 2011 and 2012 drought deaths in *Pericalymma ellipticum* and *Caustis dioica* (also dieback of plants) were widespread in these units.

Of the upland units the *Banksia* woodland was the least disturbed being in Excellent to Pristine condition. The Jarrah woodland was in Excellent condition, however Jarrah deaths observed in the woodlands (Figure 5b). This is most likely related to water table issues as there was no general evidence of *Phytophthora* dieback in these units in the Reserve. However the Marri and *Banksia* woodland in the northeastern corner of the Reserve contains a number of dead *Banksia* trees that may indicate the presence of dieback. This area apparently gets run-off from the road so waterlogging may also be a factor.

As expected the highest frequency of weeds are on the south and east margins. On the eastern margin the most significant weed is Love Grass (*Eragrostis curvula*) but this is principally associated with the road verge. Similarly around the northern and western margin Perennial Veldt Grass (*Ehrharta calycina*) is encroaching on the upland communities. Both of these species should be prioritised for removal.

Within the Reserve the wetlands have the highest density and frequency of weeds. Patches in the Wetland Mosaic have a layer of the annual grasses *Briza maxima*, *B. minor* and *Vulpia myuros* (see quadrats BARR02 and BARR03, Appendix 2). Together with *Aira caryophyllea* these are present in most of the Wandoo Woodland and Wetland Mosaic. Scattered in the upland area are *Avena barbata* and *Gladiolus caryophyllaceus* plants. A further weed that could invade the Wandoo woodlands that is currently restricted to southern firebreaks is Cape Weed (*Arctotheca calendula*). Cape Weed, *Avena barbata* and *Gladiolus caryophyllaceus* are present in small numbers and could be targeted for removal before they increase. Within the wetlands the frequency of the annual grass weeds would decrease with wetter years.



Figure 5a (above) BARR01 with dead trees. 5b (below) BARR09 with dead trees.



## 5 FLORA

### 5.1 Total Flora

A total of 347 vascular plant taxa were recorded from the Reserve (Appendix 3). These comprised 317 natives and 30 weeds. There were three ferns and fern allies, no Gymnosperms, 135 Monocotyledons and 209 Dicotyledons. The largest families are the Myrtaceae (31), Proteaceae (29), Cyperaceae (28: 26 natives and 2 weeds), Fabaceae (26: 25 natives and 1 weed), Stylidiaceae (23), Asteraceae (23: 19 natives and 4 weeds), Poaceae (21: 9 natives and 12 weeds) and Asparagaceae (17). The largest genera are *Stylidium* (21), *Schoenus* (10), *Lomandra* (8) and *Melaleuca* (6).

The patterning, and diversity, of the plant communities and the flora on the Swan Coastal Plain relates to the diversity of habitats related to the soils and the degree of inundation in winter/spring. In the Reserve there is a diverse set of habitats ranging from upland with outcropping laterite to upland sand of varying depth over laterite to upland deep sands to damp sands at varying depths over clay to inundated sandy clay. With so many habitats and their interfaces the Reserve supports a rich and diverse flora (with 317 native taxa in just 17ha). This diversity compares well with the nearby diverse Bullsbrook Nature Reserve with 440 in 119ha (Keighery *et al.* 1996). Both reserves support a similar diversity of habitats. The Reserve can also be compared to nearby Burroloo Well Nature Reserve, which is of similar size with 261 native taxa (and 70 weeds) recorded (Keighery 2003 and unpublished additions). However the Reserve is in a different catchment and has a very different geomorphology, soils (granitic and lateritic soils) and habitats. These differences are reflected in the floras, the Burroloo Well Nature Reserve differs by over 40% in composition from the Barracca Nature Reserve.

A number of groups present in the Reserve illustrate the habitat diversity.

- Eight *Lomandra* species reflecting diversity upland habitats being: *L. caespitosa*, *L. hermaphrodita*, *L. integra*, *L. micrantha*, *L. nigricans*, *L. preissii*, *L. sericea* and *L. suaveolens*.
- Three *Burchardia* species being: two wetland species *B. bairdiae* and *B. multiflora*; and one generalist, *B. congesta*.
- The co-occurrence *Mesomelaena pseudostygia* and *Mesomelaena tetragona*.
- Eleven *Schoenus* species being: the annual wetland species, *S. elegans*, *S. plumosus* and *S. sculptus*; the perennial wetland species *S. andrewsii*, *S. bifidus*, *S. caespititius*, *S. clandestinus*, *S. rigens*, *S. subflavus* and *S. unispiculatus*; and the upland *S. curvifolius*.
- Seven *Hibbertia* species are listed for the Reserve: *H. acerosa* on sands over laterite; *H. huegelii*, *H. hypericoides*, *H. subvaginata* and *H. racemosa* located in the seep sands; and *Hibbertia spicata* subsp. *spicata* and *Hibbertia stellaris* in the wetlands.
- Eight *Drosera* taxa are listed for the Reserve: *D. gigantea* subsp. *gigantea*, *D. heterophylla* and *D. menziesii* subsp. *menziesii* are wetland taxa; and the mostly upland/dryland taxa *D. menziesii* subsp. *penicillaris*, *D. menziesii* subsp. *thysanosepala*, *D. pallida* and *D. erythrorhiza*. *Drosera glanduligera* will grow in any winter/spring damp situation and occurs in both upland and wetland habitats.
- Twenty three species of Stylidiaceae are listed for the Reserve: *Levenhookia pusilla*, *Levenhookia stipitata*, *Stylidium ?junceum*, *S. araeophyllum* MS, *S. brunonianum*, *S. bulbiferum*, *S. calcaratum*, *S. ciliatum*, *S. dichotomum*, *S. diuroides* subsp. *diuroides*, *S. divaricatum*, *S. inundatum*, *S. neurophyllum* MS, *S. obtusatum*, *S. petiolare*, *S. piliferum*, *S. pulchellum*, *S. repens*, *S. roseoalatum*, *S. schoenoides*, *S. striatum* (Priority 4) and *S. utricularioides*.
- The presence of three *Xanthorrhoea* taxa – *X. acanthostachya* (Jarrah woodland), *X. preissii* (all habitats) and *X. brunonis* (Banksia woodland and wetland). In the Jarrah/Banksia woodland interface there appeared to be intermediate taxa between *X. acanthostachya* and *X. preissii*, and in the wetlands between *X. preissii* and *X. brunonis*. This apparent mixing of taxa has been recorded elsewhere (Keighery *et al.* 2008).

## 5.2 Significant Flora

### 5.2.1 State listed taxa (after Appendix 1, Table 3)

There are three state listed taxa in the Reserve (Appendix 3 Table 1) - *Eryngium pinnatifidum* subsp. *umbraphilum* (Priority 2), *Lasiopetalum lineare* (Priority 3) and *Stylidium striatum* (Priority 4).

### 5.2.2 Wetland taxa

Work on the flora of the Swan Coastal Plain has identified a number of wetland taxa, typically associated with clay based wetlands. There are a large number of these wetland taxa in the Reserve being: *Phylloglossum drummondii*, *Selaginella gracillima*, *Arthropodium preissii*, *Borya scirpoidea*, *B. sphaerocephala*, *Wurmbea dioica* subsp. *alba*, *Chorizandra enodis*, *Anigozanthos bicolor*, *Conostylis caricina*, *Haemodorum simplex*, *Mesomelaena tetragona*, *Schoenus elegans*, *S. andrewsii*, *S. bifidus*, *S. caespitius*, *S. plumosus*, *S. rigens*, *S. sculptus*, *Tribonanthes australis*, *Tribonanthes longipetala*, *Caesia micrantha* (Large swamp form) (BJ Keighery and N Gibson 094), *Patersonia occidentalis* var. *angustifolia*, *Diuris laxiflora*, *Elythranthera emarginata*, *Thelymitra antennifera*, *Philydrella pygmaea* subsp. *pygmaea*, *Polypogon tenellus*, *Eryngium pinnatifidum* subsp. *umbraphilum* (Priority 2, Figure 6a&b), *Schoenolaena juncea*, *Hydrocotyle alata*, *Angianthus preissianus*, *Brachyscome bellidioides*, *Brachyscome pusilla*, *Cotula bipinnata*, *Cotula coronopifolia*, *Cotula cotuloides*, *Quinetia urvillei* "green swamp form" (GJ Keighery 17264), *Hibbertia stellaris*, *Drosera gigantea* subsp. *gigantea*, *Drosera heterophylla*, *Drosera menziesii* subsp. *menziesii*, *Dampiera teres*, *Goodenia micrantha*, *Hypocalymma angustifolium*, *Kunzea recurva*, *Melaleuca brevifolia*, *M. osullivanii*, *M. raphiophylla*, *M. viminea*, *Verticordia acerosa* var. *preissii*, *V. densiflora* var. *cespitosa*, *V. densiflora* var. *densiflora*, *V. huegelii* var. *huegelii*, *V. insignis* subsp. *compacta*, *V. plumosa* var. *brachyphylla*, *Grevillea bipinnatifida* subsp. *bipinnatifida*, *Hakea erinacea*, *Hakea stenocarpa*, *Hakea trifurcata*, *Stylidium dichotomum*, *S. divaricatum*, *S. inundatum*, *S. obtusatum*, *S. petiolare*, *S. pulchellum*, *S. roseoalatum*, *S. utricularioides*, *Pimelea imbricata* and *Utricularia multifida*. Of these taxa *Schoenus andrewsii* is of additional interest as it is typically found on winter damp clay and loam soils from Kalbarri to Cannington and is rarely recorded on the Dandaragan Plateau. The presence of four *Melaleuca* species (*M. brevifolia*, *M. osullivanii*, *M. raphiophylla* and *M. viminea*) as dominants in the clayflats is unusual; typically there are only two present in an area of this size.

*Anarthria laevis* is unusual here while it is typically associated with damplands it is rarely recorded on the Dandaragan Plateau, as is *Hemigenia barbata* (Figure 7). Another wetland species, *Hibbertia spicata* subsp. *spicata* is not typically a wetland species on the Dandaragan Plateau, generally preferring uplands.

### 5.2.3 Sand taxa

The Banksia woodland supports a number of interesting species as described below.

- The state listed priority 3 species, *Lasiopetalum lineare*, which is the southern most (and eastern most) population (just south of a population on Yeal Nature Reserve to the west). Most populations are found north to Dongara.
- *Scaevola canescens* and *Mesomelaena pseudostygia* are species of the coastal Swan Coastal Plain Spearwood Dunes and Foothills and then onto the Dandaragan Plateau.
- *Stylidium flagellum* a plant of sandy and lateritic soils from Eneabba to Moore River, here at its southernmost recorded locality.

### 5.2.4 Laterite Taxa

The Jarrah woodlands support a number of interesting species as described below.

- *Xanthorrhoea acanthostachya* is a poorly collected species typical of laterites found from northern end of the Whicher Scarp to this Reserve, with a set of disjunct populations in the Mt Leseur area (these are most likely a different taxon). Most populations are associated with the Darling Scarp.
- *Styphelia tenuiflora* and *Chorizema dicksonii* are typically Jarrah Forest species extending onto the Swan Coastal Plain.

- The priority 4 species *Stylidium striatum* is at its northern most location in the Reserve, its typical distribution being east and south from the Reserve.
- *Tricoryne humilis*, a common component of lateritic soils of the Jarrah Forest south of Perth, extending north to near Bindoon in Julimar Conservation Park. Records north of here are an undescribed species.

### 5.2.5 Variable taxa

A number of taxa are from species complexes, these include the following.

- This group is recognised as *Eryngium pinnatifidum* subsp. *umbraphilum* MS (priority 2, Figure 5), an annually renewed herb of dampland clayflats (may also be calcareous) of the Swan Coastal Plain recorded from near Gingin south to Carrabungup Nature Reserve, SW of Pinjarra.
- *Tribonanthes longipetala* is part of a complex of four species that includes: *T. uniflora* (emergent in clay pans of the Coastal Plain and Jarrah Forest); an undescribed species of Wandoo woodlands; and another species found on granite rocks in the Wheatbelt. *Tribonanthes longipetala* is largely confined to the Darling Scarp and granites from Mogumber to Serpentine.
- *Quinetia urvillei* is a very widespread component of sandy soils throughout SW Australia. A very distinctive form, *Quinetia urvillei* green swamp form (GJ Keighery 17264) has been recently identified on clay based wetlands on the Swan Coastal Plain at Harvey and Pinjarra. This form and the typical grey form are found in the Reserve, this is the third site where the forms co-occur.



Figure 6a (above) *Eryngium pinnatifidum* subsp. *umbraphilum* MS flower heads, the floral bracts are pungent, this character varies in the group.  
6b (left) A typical plant with leaves and flowers.



Figure 7: *Hemigenia barbata* a 1m high shrub of the damplands around the clayflats.



## 6 CONSERVATION VALUES OF THE BARRACCA NATURE RESERVE

Barracca Nature Reserve is not typical of the bushland on the Dandaragan Plateau (SWA1) showing greater floristic affinity to the Swan Coastal Plain (SWA2). As discussed previously (section 4.3) it is expected that on analysis the species rich Jarrah woodlands would be allied to SWAFCT 3. Two wetland SWAFCTs are expected to be distinguished in the Reserves being related to SWAFCTs 08 and 05. Continuing analysis of Dandaragan Plateau study sites may identify related groups but majority of plant communities the Reserve's wetland are allied to rare communities. SWAFCTs 3 and 8 are threatened ecological communities. The 'clayflat wetlands' (SWAFCT 8) are both state and commonwealth listed ecological communities. In addition it is expected that the highly intact *Banksia* woodlands in the Reserve will also be uncommon, and most likely rare. As a consequence the vegetation of the Reserve can be considered unique. It is expected that this reflects the close relationship between the Reserve's vegetation and that of the Swan Coastal Plain (SWA2) and the Dandaragan Plateau (SWA1).

Associated with the Reserve's unusual set of communities is a diverse and varied flora with many species of conservation significance. This diversity, allied to the variety of communities and low number of weeds contribute to this Reserve's very high conservation value. It is expected that the adjacent bushland in private ownership and the small reserve to the northwest would have similar value and retention and management of this vegetation should be a priority with local government.

With the Reserve's location on the Great Northern Highway it is well located to display of the area's flora and vegetation. When the *Verticordia* species flower in late spring (Figure 1) it is especially attractive. If a safe pull off point could be made without clearing the roadside vegetation it would be an excellent location for a short flora walk using existing fire access tracks.



Figure 8: Annual and annually renewed plants on the clayflats.

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Figure 9: Volunteers preparing for a day surveying in Barracca Nature Reserve. Photo Mark Brundrett.



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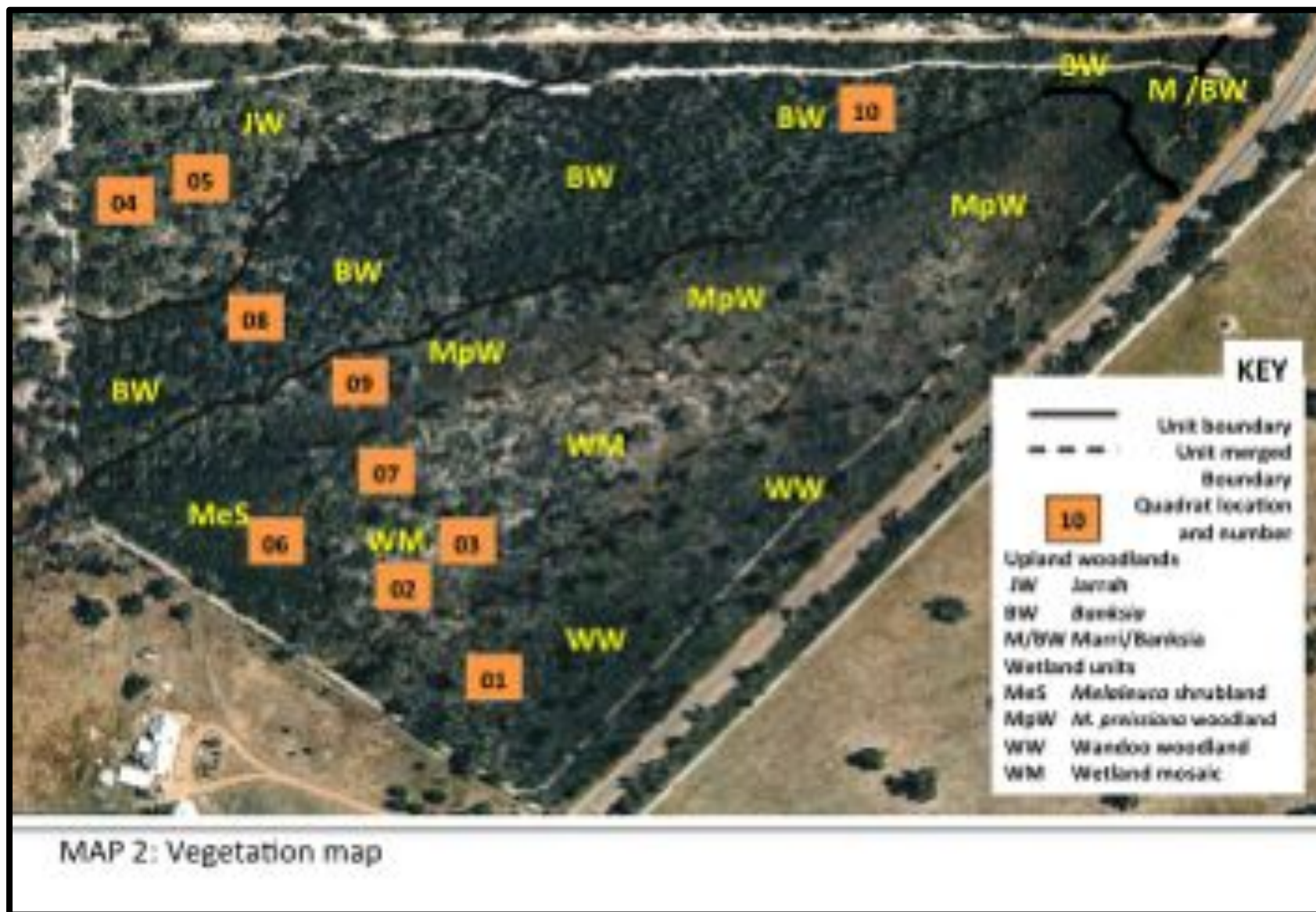
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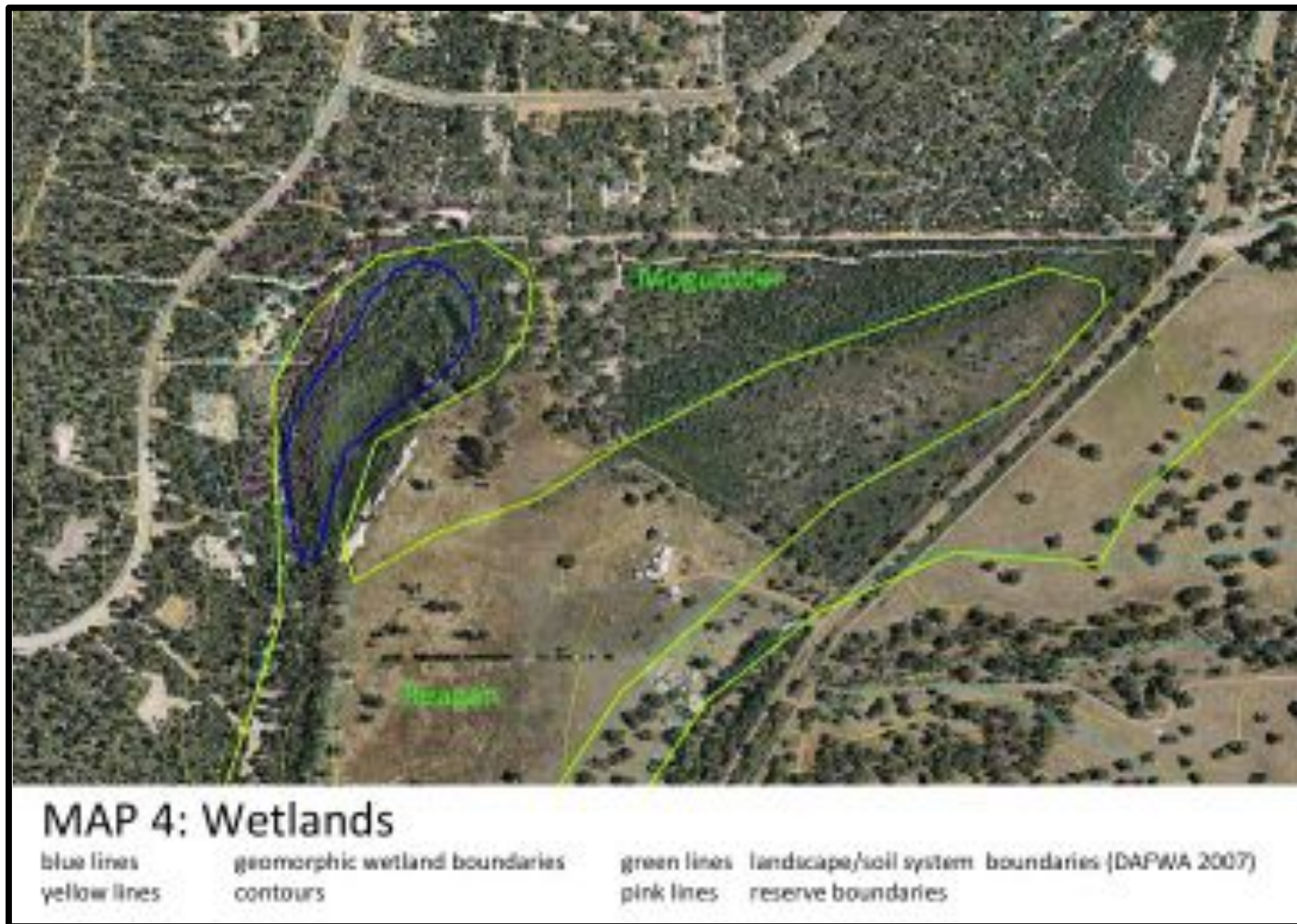
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## 9 MAPS













## **10. APPENDICES**

**APPENDIX 1: Vegetation, flora and ecological community codes**

**APPENDIX 2: Quadrat and associated information**

**APPENDIX 3: Flora of the Barracca Nature Reserve**

### 10.1 APPENDIX 1: Vegetation, flora and ecological community codes

**Table 1: Vegetation structure.** The classification system used to describe vegetation structure (based on BJ Keighery 1994, as adapted from Muir 1977 and Aplin 1979). Each row indicates a different vegetation layer.

Growth Form/Height Class	Canopy Cover			
	100-70%	70-30%	30-10%	10-2%
<b>Trees over 30m</b>	Closed Tall Forest <b>CTF</b>	Open Tall Forest <b>OTF</b>	Tall Woodland <b>TW</b>	Open Tall Woodland <b>OTW</b>
<b>Trees 10-30m</b>	Closed Forest <b>CF</b>	Open Forest <b>OF</b>	Woodland <b>W</b>	Open Woodland <b>OW</b>
<b>Trees under 10m</b>	Closed Low Forest <b>CLF</b>	Open Low Forest <b>OLF</b>	Low Woodland <b>LW</b>	Open Low Woodland <b>OLW</b>
<b>Mallee over 8m (Tree Mallee)</b>	Closed Tree Mallee <b>CTM</b>	Tree Mallee <b>TM</b>	Open Tree Mallee <b>OTM</b>	Very Open Tree Mallee <b>VOTM</b>
<b>Mallee under 8m (Shrub Mallee)</b>	Closed Shrub Mallee <b>CSM</b>	Shrub Mallee <b>SM</b>	Open Shrub Mallee <b>OSM</b>	Very Open Shrub Mallee <b>VOSM</b>
<b>Shrubs over 2m</b>	Closed Scrub <b>CSC</b>	Open Scrub <b>OSC</b>	Tall Shrubland <b>TS</b>	Open Tall Shrubland <b>OTS</b>
<b>Shrubs 1-2m</b>	Closed Heath <b>CH</b>	Open Heath <b>OH</b>	Shrubland <b>S</b>	Open Shrubland <b>OS</b>
<b>Shrubs under 1m</b>	Closed Low Heath <b>CLH</b>	Open Low Heath <b>OLH</b>	Low Shrubland <b>LS</b>	Open Low Shrubland <b>OLS</b>
<b>Grasses</b>	Closed Grassland <b>CG</b>	Grassland <b>G</b>	Open Grassland <b>OG</b>	Very Open Grassland <b>VOG</b>
<b>Herbs</b>	Closed Herbland <b>CHB</b>	Herbland <b>HB</b>	Open Herbland <b>OHB</b>	Very Open Herbland <b>VOHB</b>
<b>Sedges</b>	Closed Sedgeland <b>CSG</b>	Sedgeland <b>SG</b>	Open Sedgeland <b>OSG</b>	Very Open Sedgeland <b>VOSG</b>
<b>Ferns</b>	Closed Fernland <b>CFL</b>	Fernland <b>FL</b>	Open Fernland <b>OFL</b>	Very Open Fernland <b>VOFL</b>
<b>Climbers</b>	Closed Climbers <b>CC</b>	Climbers <b>C</b>	Open Climbers <b>OC</b>	Very Open Climbers <b>VOC</b>

**Table 2: Vegetation condition scale** (BJ Keighery 1994).

<b>Vegetation Condition Scale</b>	
<b>1</b>	<b>Pristine</b> Pristine or nearly so, no obvious signs of disturbance
<b>2</b>	<b>Excellent</b> Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.
<b>3</b>	<b>Very Good</b> 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.
<b>4</b>	<b>Good</b> Vegetation structure significantly altered by very obvious signs of multiple disturbance. 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
<b>5</b>	<b>Degraded</b> 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.
<b>6</b>	<b>Completely Degraded</b> 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.

**Table 3: Categories used to define the conservation status of flora taxa at state level, under the *Wildlife Conservation Act 1950*. Categories are defined in Atkins (2006).**

<b>Western Australian Flora Conservation Codes</b>	
<b>R</b>	<b>Declared Rare Flora – Extant Taxa</b> Taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such.
<b>X</b>	<b>Declared Rare Flora - Presumed Extinct Taxa</b> Taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such.
<b>P1</b>	<b>Priority One - Poorly Known Taxa</b> Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as ‘rare flora’, but are in urgent need of further survey
<b>P2</b>	<b>Priority Two - Poorly Known Taxa</b> Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as ‘rare flora’, but are in urgent need of further survey
<b>P3</b>	<b>Priority Three - Poorly Known Taxa</b> Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as ‘rare flora’ but are in need of further survey.
<b>P4</b>	<b>Priority Four – Rare Taxa</b> Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.

Note, the need for further survey of poorly known taxa is prioritised into the three categories depending on the perceived urgency for determining the conservation status of those taxa, as indicated by the apparent degree of threat to the taxa based on the current information.

**Table 4: Western Australian Ecological Community Conservation Codes** (English and Blyth 1999). These ecological communities have been assessed through a procedure (co-ordinated by DEC) and assigned to one of the following categories related to the status of the threat to the community. One of the criteria used to determine the categories of threatened ecological community is an estimate of the geographic range and/or the total area occupied and/or the number of discrete occurrences reduced since European settlement.

<b>Western Australian Ecological Community Conservation Codes</b>
<p><b>Category 1</b> <b>Presumed Totally Destroyed</b> An ecological community which has been adequately searched for but for which no representative occurrences have been located. The community has been found to be totally destroyed or so extensively modified throughout its range that no occurrence of it is likely to recover its species composition and/or structure in the foreseeable future.</p>
<p><b>Category 2</b> <b>Critically Endangered</b> An ecological community which has been adequately surveyed and found to have been subject to a major contraction in area and/or which was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated.</p>
<p><b>Category 3</b> <b>Endangered</b> An ecological community which has been adequately surveyed and found to have been subject to a major contraction in area and/or was originally of limited distribution and is in danger of significant modification throughout its range or severe modification or destruction over most of its range in the near future.</p>
<p><b>Category 4</b> <b>Vulnerable</b> An ecological community which has been adequately surveyed and found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not been assured and/or a community which is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range.</p>
<p><b>Category 5</b> <b>Data Deficient</b> An ecological community for which there is inadequate data to assign it to one of the above categories and/or which is not yet evaluated with respect to status of threat. (Usually an ecological community with poorly known distribution or biology that is suspected to belong to any of the above categories. These ecological communities have a high priority for survey and/or research.)</p>
<p><b>Category 6</b> <b>Lower Risk</b> A community which has been adequately surveyed and evaluated and available information suggests that it does not qualify for one of the above categories of threat.</p>

## APPENDIX 2: Quadrat and associated information

### Wetland: Wandoo Woodland

#### Quadrat BARR01      Mapping Unit: Wandoo Woodland (WW)

*Eucalyptus wandoo* Open Woodland, over *Hypocalymma angustifolium* and *Hakea erinacea* Open Low Heath, over *Borya sphaerocephala* Open Herbland, and *Caustis dioica* Sedgeland.



Location: 31° 31' 24.8" 116° 1' 40.0", Photo: Mark Brundrett.  
Sampled: 9/10/2010  
No. taxa: In quadrat: 37 natives; 3 weeds  
Adjacent: 17 natives; 2 weeds  
Condition: Excellent. No disturbance evident. Very dry.  
Soils: Grey-brown clay over pale yellow clay with ironstone.  
Drainage: Poorly drained  
Aspect: Flat  
Litter: 10%; <1 cm depth.  
Bare Ground: 5%

#### In quadrat:

**Trees** – *Eucalyptus wandoo*

**Shrubs** – *Babingtonia camphorosmae*, *Banksia dallanneyi*, *Daviesia divaricata*, *Daviesia incrassata*, *Grevillea bipinnatifida* subsp. *bipinnatifida*, *Grevillea pilulifera* subsp. *occidentalis*, *Hakea erinacea*, *Hibbertia spicata* subsp. *spicata*, *Hypocalymma angustifolium*, *Isopogon dubius*, *Verticordia acerosa* var. *preissii*, *Verticordia huegelii* var. *huegelii*, *Xanthorrhoea preissii*

**Herbs** – *Anigozanthos bicolor*, *Borya sphaerocephala*, *Conostylis aculeata* subsp. *bracteata* FPR, *Conostylis setigera*, *Drosera gigantea* subsp. *gigantea*, *Drosera menziesii* subsp. *menziesii*, *Elythranthera emarginata*, *Haemodorum simplex*, *Hydrocotyle alata*, *Hydrocotyle callicarpa*, \**Hypochaeris glabra*, *Ptilotus manglesii*, *Siloxerus filifolius*, *Sowerbaea laxiflora*, *Stylidium dichotomum*, *Thysanotus manglesianus*, *Tribonanthes longipetala*, *Tricoryne humilis*

**Grasses** – *Austrostipa compressa*, *Austrostipa elegantissima*, \**Briza maxima*, \**Briza minor*, *Neurachne alopecuroidea*, *Caustis dioica*, *Centrolepis aristata*, *Lepidosperma costale*

**Adjacent:**

**Trees** – *Corymbia calophylla*, *Nuytsia floribunda*

**Shrubs** – *Conospermum stoechadis*, *Gompholobium marginatum*, *Hakea trifurcata*, *Opercularia vaginata*, *Petrophile seminuda*, *Verticordia densiflora* var. *cespitosa*, *Verticordia insignis* subsp. *compta*

**Herbs** – *Conostylis caricina*, *Dampiera teres*, *Hyalosperma cotula*, \**Parentucellia latifolia*, *Patersonia occidentalis* var. *angustifolia*, *Philydrella pygmaea* subsp. *pygmaea*, *Podotheca gnaphalioides*, *Stylidium pulchellum*, \**Ursinia anthemoides*

**Sedges** – *Lepidobolus preissianus*

**Wetland Mosaic**

**Quadrat BARR02**

**Mapping Unit: Wetland Mosaic (WM)**

*Kunzea recurva* Open Tall Shrubland, over *Verticordia densiflora* var. *densiflora* Open Low Heath, over \**Vulpia myuros* Grassland, and *Hyalosperma cotula* and *Tribonanthes australis* Closed Herbland, and *Lepidosperma viscidum* Open Sedgeland.



Location: 31° 31' 24.0" 116° 1' 38.5", Photo: Mark Brundrett.

Sampled: 9/10/2010

No. taxa: In quadrat: 34 natives; 9 weeds  
Adjacent: 4 natives; 0 weeds  
Condition: Excellent. A few weedy grasses.  
Soils: Deep, grey clay.  
Drainage: Poorly drained  
Aspect: Flat  
Litter: 2-10%  
Bare Ground: 30-70%

**In quadrat:**

**Trees** - *Eucalyptus wandoo*

**Shrubs** – *Hypocalymma angustifolium*, *Kunzea recurva*, *Melaleuca viminea*, *Petrophile seminuda*, *Verticordia densiflora* var. *densiflora*, *Xanthorrhoea preissii*

**Herbs** – \**Arctotheca calendula*, *Arthropodium preissii*, *Borya scirpoidea*, *Burchardia bairdiae*, *Burchardia multiflora*, *Cassytha* sp., \**Cicendia filiformis*, *Dampiera linearis*, *Diuris laxiflora*, *Drosera gigantea* subsp. *gigantea*, *Drosera heterophylla*, *Goodenia micrantha*, *Hyalosperma cotula*, *Hydrocotyle alata*, *Lomandra integra*, *Lomandra suaveolens*, \**Monopsis debilis*, \**Parentucellia viscosa*, *Philydrella pygmaea* subsp. *pygmaea*, *Phyllangium paradoxum*, *Quinetia urvillei*, \**Romulea rosea*, *Siloxerus multiflorus*, *Stylidium calcaratum*, *Stylidium petiolare*, *Stylidium roseoalatum*, *Thysanotus gracilis*, *Tribonanthes australis*

**Grasses** – \**Aira caryophyllea*, \**Briza maxima*, \**Briza minor*, *Polypogon tenellus*, \**Vulpia myuros*

**Sedges** – *Centrolepis aristata*, *Cyathochaeta avenacea*, *Lepidosperma viscidum*

**Adjacent:**

**Shrubs** – *Melaleuca osullivanii*

**Herbs** – *Podotheca gnaphalioides*, *Thysanotus manglesianus*, *Utricularia multifida*

**Quadrat BARR03 Mapping Unit: Wetland Mosaic (WM)**

*Melaleuca viminea* and *Kunzea recurva* Open Scrub, over *Verticordia densiflora* var. *densiflora* Low Shrubland, over \**Briza maxima* Very Open Grassland, and *Drosera gigantea* subsp. *gigantea* and *Hyalosperma cotula* Herbland, and *Centrolepis aristata* Sedgeland.

Location: 31° 31' 23.3" 116° 1' 37.9" , Photo: Mark Brundrett.  
Sampled: 9/10/2010  
No. taxa: In quadrat: 29 natives; 8 weeds  
Adjacent: 13 natives; 0 weeds  
Condition: Pristine-Excellent  
Soils: Brown-grey clay, over beige clay with some sand.  
Drainage: Poorly drained  
Aspect: Flat  
Litter: <5%; <5 cm depth.  
Bare Ground: 2-10%





**In quadrat:**

**Shrubs** – *Hypocalymma angustifolium*, *Kunzea recurva*, *Melaleuca osullivanii*, *Melaleuca viminea*, *Verticordia densiflora* var. *densiflora*

**Herbs** – *\*Arctotheca calendula*, *Arthropodium preissii*, *Borya scirpoidea*, *Caesia micrantha* (Large swamp form) (BJ Keighery and N Gibson 094), *\*Cicendia filiformis*, *Dampiera teres*, *Drosera gigantea* subsp. *gigantea*, *Drosera menziesii* subsp. *penicillaris*, *Eriochilus helonomos*, *Hyalosperma cotula*, *Hydrocotyle alata*, *\*Hypochaeris glabra*, *Hypoxis occidentalis*, *Lomandra micrantha*, *Lomandra suaveolens*, *\*Parentucellia viscosa*, *Philydrella pygmaea* subsp. *pygmaea*, *Quinetia urvillei* "green swamp form" (GK 17264), *Siloxerus filifolius*, *Stylidium inundatum*, *Stylidium petiolare*, *Stylidium utricularioides*, *Tribonanthes australis*, *Utricularia multifida*

**Grasses** – *\*Aira caryophyllea*, *\*Briza maxima*, *\*Briza minor*, *\*Vulpia myuros*

**Sedges** – *Centrolepis aristata*, *Centrolepis polygyna*, *Lepidosperma longitudinale*, *Lepidosperma squamatum*

**Adjacent:**

**Trees** – *Corymbia calophylla*

**Shrubs** – *Petrophile seminuda*, *Verticordia plumosa* var. *brachyphylla*, *Xanthorrhoea brunonis*

**Herbs** – *Cassytha pomiformis*, *Cotula coronopifolia*, *Dampiera linearis*, *Eryngium pinnatifidum* subsp. *umbraphilum* MS, *Lomandra* sp., *Patersonia occidentalis*, *Podotheca gnaphalioides*, *Sowerbaea laxiflora*

**Grasses** – *Neurachne alopecuroidea*

**Quadrat BARR07**

**Mapping Unit: Wetland Mosaic (WM)**

*Kunzea recurva*, *Melaleuca osullivanii*, *Melaleuca viminea* and *Verticordia plumosa* var. *brachyphylla*  
Open Heath, over *Drosera gigantea* subsp. *gigantea* and *Tribonanthes australis* Very Open Herbland



Location: 31° 31' 22.2" 116° 1' 36.1" , Photo: Mark Brundrett.  
Sampled: 9/10/2010  
No. taxa: In quadrat: 25 natives; 6 weeds  
Adjacent: 0 native; 1 weed  
Condition: Excellent  
Soils: Very dark grey sandy loam, over light grey loamy sand, with subsurface ironstone.  
Drainage: Poorly drained  
Aspect: Flat  
Litter: About 5%; <1 cm depth.  
Bare Ground: About 60%

**In quadrat:**

**Shrubs** – *Kunzea recurva*, *Melaleuca osullivanii*, *Melaleuca viminea*, *Verticordia plumosa* var. *brachyphylla*

**Herbs** – *Arthropodium preissii*, *Cassytha glabella*, \**Cicendia filiformis*, *Cotula coronopifolia*, *Drosera gigantea* subsp. *gigantea*, *Drosera glanduligera*, *Drosera menziesii* subsp. *thysanosepala*, *Eryngium pinnatifidum* subsp. *umbraphilum* MS, *Hydrocotyle alata*, \**Hypochaeris glabra*, *Philydrella pygmaea* subsp. *pygmaea*, *Quinetia urvillei* "green swamp form" (GK 17264), *Stylidium calcaratum*, *Stylidium inundatum*, *Stylidium obtusatum*, *Thelymitra antennifera*, *Tribonanthes australis*

**Grasses** – *\*Aira caryophyllea*, *\*Briza maxima*, *\*Briza minor*, *\*Lolium multiflorum*, *Polypogon tenellus*

**Sedges** – *Centrolepis aristata*, *Centrolepis polygyna*, *Juncus bufonius*, *Schoenus plumosus*, *Schoenus sculptus*

**Adjacent: Grasses** – *\*Vulpia* sp.

**Wetland: Melaleuca shrubland**

**Quadrat BARR06**                      **Mapping Unit: Melaleuca shrubland (MeS)**

*Melaleuca viminea*, *Melaleuca osullivanii* and *Kunzea recurva* Open Scrub, over *\*Briza maxima* and *Polypogon tenellus* Very Open Grassland, and *Drosera gigantea* subsp. *gigantea*, *Hyalosperma cotula*, *Burchardia multiflora* and *Philydrella pygmaea* subsp. *pygmaea* Closed Herbland



Location: 31° 31' 23.1" 116° 1' 36.9" , Photo: Mark Brundrett.  
Sampled: 9/10/2010  
No. taxa: In quadrat: 36 natives; 7 weeds  
Adjacent: 0 natives; 0 weeds  
Condition: Excellent-Very Good. Minor disturbance. Weedy grasses but no invasive weed species.  
Soils: Brown clay over grey sandy clay.  
Drainage: Poorly drained  
Aspect: Gentle SW slope  
Litter: <5%; 1 cm depth.  
Bare Ground: 20%

**In quadrat:**

**Trees** – *Eucalyptus wandoo*

**Shrubs** – *Kunzea recurva*, *Melaleuca osullivanii*, *Melaleuca viminea*, *Verticordia densiflora* var. *densiflora*

**Herbs** – *Arthropodium preissii*, *Borya scirpoidea*, *Brachyscome pusilla*, *Burchardia multiflora*, *Caesia micrantha* (Large swamp form) (BJ Keighery and N Gibson 094), *\*Cicendia filiformis*, *Cotula coronopifolia*, *Cotula cotuloides*, *Diuris laxiflora*, *Drosera gigantea* subsp. *gigantea*, *Drosera menziesii* subsp. *thysanosepala*, *Hyalosperma cotula*, *Hydrocotyle alata*, *\*Hypochoeris glabra*, *Lomandra caespitosa*, *Philydrella pygmaea* subsp. *pygmaea*, *Quinetia urvillei* "green swamp form" (GK 17264), *\*Romulea rosea*, *Selaginella gracillima*, *Siloxerus humifusus*, *Siloxerus multiflorus*, *Stylidium calcaratum*, *Stylidium ciliatum*, *Stylidium inundatum*, *Tribonanthes australis*, *\*Ursinia anthemoides*, *Utricularia multifida*, *Wurmbea dioica* subsp. *alba*

**Grasses** – *\*Briza maxima*, *\*Briza minor*, *Neurachne alopecuroidea*, *Polypogon tenellus*

**Sedges** – *Centrolepis aristata*, *Centrolepis polygyna*, *\*Cyperus tenellus*, *Juncus bufonius*, *Lepidosperma squamatum*, *Schoenus* sp.

**Wetland: *Melaleuca preissiana* Woodland**

**Quadrat BARR09                      Mapping Unit: Wm (MpW)**

*Melaleuca preissiana* Open Woodland, over *Xanthorrhoea preissii* Open Shrubland, over *Verticordia densiflora* var. *densiflora* Closed Low Heath, over *Hypolaena exsulca* and *Lepidosperma squamatum* Sedgeland, with *Cassytha glabella* Climbers



Location:                      31° 31' 19.6" 116° 1' 37.6" , Photo: Mark Brundrett.

Sampled: 9/10/2010  
No. taxa: In quadrat: 28 natives; 1 weed  
Adjacent: 0 natives; 0 weeds  
Condition: Excellent  
Soils: Grey sandy loam, over light grey loamy sand.  
Drainage: Poorly drained  
Aspect: Gentle SE slope  
Litter: 30-70%; 2 cm depth.  
Bare Ground: 2-10%

**In quadrat:**

**Trees** – *Eucalyptus marginata* subsp. *thalassica*, *Melaleuca preissiana*

**Shrubs** – *Aotus procumbens*, *Bossiaea eriocarpa*, *Conospermum stoechadis*, *Hibbertia stellaris*, *Hibbertia subvaginata*, *Kunzea recurva*, *Philotheca spicata*, *Verticordia densiflora* var. *densiflora*, *Xanthorrhoea preissii*

**Herbs** – *Burchardia bairdiae*, *Cassytha glabella*, *Chamaescilla* sp., *Drosera erythrorhiza*, *Drosera gigantea* subsp. *gigantea*, *Drosera heterophylla*, \**Gladiolus caryophyllaceus*, *Gonocarpus pithyoides*, *Lechenaultia biloba*, *Lomandra caespitosa*, *Stylidium brunonianum*, *Stylidium dichotomum*, *Thysanotus manglesianus*, *Tribonanthes australis*

**Sedges** – *Hypolaena exsulca*, *Lepidosperma squamatum*, *Lyginia imberbis*, *Schoenus caespititius*

**Upland: Jarrah Woodland**

**Quadrat BARR04**

**Mapping Unit: Jarrah Woodland (J)**

*Eucalyptus marginata* subsp. *thalassica* Open Low Forest, over *Xanthorrhoea acanthostachya* Shrubland, over *Hibbertia hypericoides* and *Calothamnus sanguineus* Open Low Heath, over a mixed Very Open Herbland, and *Tetraria octandra*, *Lepidosperma squamatum* and *Mesomelaena tetragona* Open Sedgeland

Location: 31° 31' 15.6" 116° 1' 31.2" , Photo: Mark Brundrett.  
Sampled: 9/10/2010  
No. taxa: In quadrat: 67 natives; 4 weeds  
Adjacent: 5 natives; 1 weed  
Condition: Excellent. Scattered annual grass weeds and some herb weeds. Very dry; annuals reduced.  
Soils: Deep, light grey loamy sand.  
Drainage: Well drained  
Aspect: Gentle SW slope  
Litter: 80%; 1-2 cm depth.  
Bare Ground: About 12%



**In quadrat:**

**Trees** – *Eucalyptus marginata* subsp. *thalassica*

**Shrubs** – *Astroloma stomarrhena*, *Banksia dallanneyi*, *Bossiaea eriocarpa*, *Calothamnus sanguineus*, *Calytrix flavescens*, *Calytrix leschenaultii*, *Conostephium pendulum*, *Daviesia preissii*, *Gastrolobium capitatum*, *Gompholobium knightianum*, *Gompholobium tomentosum*, *Hibbertia huegelii*, *Hibbertia hypericoides*, *Hibbertia subvaginata*, *Jacksonia floribunda*, *Petrophile linearis*, *Philotheca spicata*, *Stirlingia latifolia*, *Styphelia tenuiflora*, *Synaphea spinulosa*, *Xanthorrhoea acanthostachya*

**Herbs** – *Anigozanthos humilis*, *Burchardia congesta*, *Calectasia narragara*, *Chamaescilla corymbosa*, *Conostylis aculeata* subsp. *aculeata*, *Conostylis juncea*, *Conostylis setigera*, *Dampiera linearis*, *Dasyogon bromeliifolius*, *Drosera erythrorhiza*, *Drosera pallida*, \**Gladiolus caryophyllaceus*, *Haemodorum laxum*, *Hyalosperma cotula*, *Lagenophora huegelii*, *Lechenaultia biloba*, *Lomandra caespitosa*, *Lomandra hermaphrodita*, *Lomandra nigricans*, *Lomandra preissii*, *Lomandra suaveolens*, *Millotia myosotidifolia*, *Patersonia juncea*, *Phyllangium paradoxum*, *Podotheca gnaphalioides*, *Pyrorchis nigricans*, *Quinetia urvillei*, *Scaevola canescens*, *Scaevola phlebopetala*, *Sowerbaea laxiflora*, *Stackhousia monogyna*, *Stylidium araeophyllum* MS, *Stylidium schoenoides*, *Thysanotus manglesianus*, *Thysanotus sparteus*, *Trachymene pilosa*, \**Ursinia anthemoides*, *Wahlenbergia preissii*, *Waitzia suaveolens*, *Xanthosia huegelii*

**Grasses** – \**Aira caryophyllea*, \**Briza maxima*, *Neurachne alopecuroidea*

**Sedges** – *Alexgeorgea nitens*, *Desmocladus fasciculatus*, *Lepidosperma squamatum*, *Lyginia barbata*, *Mesomelaena tetragona*, *Tetraria octandra*

**Adjacent:**

**Shrubs** – *Acacia applanata*, *Billardiera fraseri*, *Boronia ramosa*, *Petrophile squamata*

**Herbs** – \**Wahlenbergia capensis*

**Sedges** – *Lepidosperma* sp.

A report for the Department of Environment and Conservation

GJ Keighery, BJ Keighery, VM Longman and Wildflower Society of WA (Inc.) 2013

**Upland: Jarrah Woodland**

**Quadrat BARR05**

**Mapping Unit: Jarrah woodland (J)**

*Eucalyptus marginata* subsp. *thalassica* and *Corymbia calophylla* Low Woodland, over *Xanthorrhoea acanthostachya* Shrubland, over *Hibbertia hypericoides*, *Calothamnus sanguineus* and *Hakea stenocarpa* Closed Low Heath, over *Mesomelaena tetragona* and *Tetraria octandra* Open Sedgeland



Location: 31° 31' 15.8" 116° 1' 32.4" , Photo: Mark Brundrett.  
Sampled: 9/10/2010  
No. taxa: In quadrat: 55 natives; 1 weed  
Adjacent: 1 native; 0 weeds  
Condition: Excellent. Dieback evident (dead Jarrah trees).  
Soils: Grey sand with laterite (10%), over dark grey/brown silty sand with laterite.  
Drainage: Well drained  
Aspect: Gentle SW slope  
Litter: 5%; <1 cm depth.  
Bare Ground: 10%

**In quadrat:**

**Trees** – *Corymbia calophylla*, *Eucalyptus marginata* subsp. *thalassica*

**Shrubs** – *Acacia applanata*, *Banksia dallanneyi*, *Boronia ramosa* subsp. *anethifolia*, *Bossiaea eriocarpa*, *Calothamnus sanguineus*, *Calytrix variabilis*, *Conostephium pendulum*, *Daviesia preissii*, *Gastrolobium capitatum*, *Gompholobium knightianum*, *Hakea stenocarpa*, *Hibbertia huegelii*,

*Hibbertia hypericoides*, *Petrophile linearis*, *Petrophile striata*, *Philotheca spicata*, *Styphelia tenuiflora*,  
*Synaphea spinulosa*, *Verticordia densiflora* var. *densiflora*, *Xanthorrhoea acanthostachya*

**Herbs** – *Burchardia congesta*, *Calectasia narragara*, *Cassytha aurea*, *Chamaescilla corymbosa*,  
*Conostylis setigera*, *Dampiera linearis*, *Drosera erythrorhiza*, *Haemodorum discolor*, *Hyalosperma*  
*cotula*, *Lechenaultia biloba*, *Lomandra caespitosa*, *Lomandra hermaphrodita*, *Lomandra preissii*,  
*Lomandra sericea*, *Patersonia pygmaea*, *Poranthera microphylla*, *Scaevola canescens*, *Stylidium*  
*ciliatum*, *Stylidium* sp., *Thelymitra crinita*, *Trachymene pilosa*, *Tricoryne elatior*, \**Ursinia*  
*anthemoides*, *Wahlenbergia preissii*, *Xanthosia huegelii*

**Grasses** – *Amphipogon amphipogonoides*, *Amphipogon strictus*, *Neurachne alopecuroidea*

**Sedges** – *Alexgeorgea nitens*, *Desmocladus fasciculatus*, *Lepidosperma costale*, *Lepidosperma*  
*squamatum*, *Mesomelaena tetragona*, *Tetraria octandra*

**Adjacent:**

**Herbs** – *Stylidium striatum*

**Upland: Banksia Woodland**

**Quadrat BARR08**                      **Mapping Unit: Banksia Woodland (B)**

*Banksia attenuata* and *Banksia menziesii* Open Low Forest, over *Eremaea pauciflora* and  
*Xanthorrhoea brunonis* Open Heath, over mixed Open Low Heath, over *Dampiera linearis* Very Open  
Herbland, and *Mesomelaena pseudostygia* Open Sedgeland



Location:                      31° 31' 17.8" 116° 1' 34.3" , Photo: Mark Brundrett.



Sampled: 9/10/2010  
No. taxa: In quadrat: 49 natives; 0 weeds  
Adjacent: 11 natives; 0 weeds  
Condition: Pristine-Excellent  
Soils: Yellow-grey sand, over yellow sand.  
Drainage: Well drained  
Aspect: Very gentle S slope  
Litter: >70%; 2 cm depth.  
Bare Ground: 2-10%

**In quadrat:**

**Trees** – *Banksia attenuata*, *Banksia menziesii*

**Shrubs** – *Acacia applanata*, *Bossiaea eriocarpa*, *Calytrix fraseri*, *Conostephium pendulum*, *Daviesia triflora*, *Eremaea pauciflora*, *Gompholobium knightianum*, *Gompholobium tomentosum*, *Hibbertia huegelii*, *Hibbertia hypericoides*, *Hibbertia subvaginata*, *Jacksonia floribunda*, *Leucopogon conostephioides*, *Petrophile linearis*, *Philothea spicata*, *Scholtzia involucrata*, *Stirlingia latifolia*, *Synaphea spinulosa*, *Xanthorrhoea brunonis*

**Herbs** – *Burchardia congesta*, *Conostylis juncea*, *Dampiera linearis*, *Dasyogon bromeliifolius*, *Drosera erythrorhiza*, *Drosera menziesii* subsp. *penicillaris*, *Johnsonia pubescens*, *Lomandra caespitosa*, *Lomandra hermaphrodita*, *Lomandra sericea*, *Patersonia occidentalis* var. *occidentalis*, *Phlebocarya ciliata*, *Phlebocarya filifolia*, *Phyllangium paradoxum*, *Pterochaeta paniculata*, *Quinetia urvillei*, *Stylidium neurophyllum* MS, *Stylidium schoenoides*, *Trachymene pilosa*, *Xanthosia huegelii*

**Grasses** – *Austrodanthonia occidentalis*

**Sedges** – *Alexgeorgea nitens*, *Desmocladius fasciculatus*, *Hypolaena exsulca*, *Lepidosperma squamatum*, *Lyginia barbata*, *Mesomelaena pseudostygia*, *Tetraria octandra*

**Adjacent:**

**Trees** – *Banksia ilicifolia*, *Corymbia calophylla*, *Eucalyptus marginata* subsp. *thalassica*, *Nuytsia floribunda*

**Shrubs** – *Adenanthos cygnorum*, *Calytrix flavescens*, *Calytrix leschenaultii*, *Conostephium minus*

**Herbs** – *Conostylis setigera*, *Scaevola phlebopetala*, *Stylidium piliferum*

**Upland: Banksia Woodland**

**Quadrat BARR10**

**Mapping Unit: Banksia Woodland (B)**

*Banksia attenuata*, *Banksia menziesii* and *Banksia ilicifolia* Open Low Forest, over *Adenanthos cygnorum* Tall Shrubland, over *Eremaea pauciflora*, *Scholtzia involucrata* and *Xanthorrhoea preissii* Closed Low Heath, over *Dasyogon bromeliifolius*, *Phlebocarya ciliata* and *Patersonia occidentalis* var. *occidentalis* Herbland

Location: 31° 31' 14.4" 116° 1' 45.6" , Photo: Mark Brundrett.  
Sampled: 9/10/2010  
No. taxa: In quadrat: 40 natives; 0 weeds  
Adjacent: 9 natives; 0 weeds  
Condition: Pristine  
Soils: Brown sand over white sand.

Drainage: Well drained  
Aspect: Flat  
Litter: 95%; 2 cm depth.  
Bare Ground: <1%



**In quadrat:**

**Trees** – *Banksia attenuata*, *Banksia ilicifolia*, *Banksia menziesii*

**Shrubs** – *Adenanthos cygnorum*, *Bossiaea eriocarpa*, *Calytrix fraseri*, *Conospermum crassinervium*, *Conostephium minus*, *Eremaea pauciflora*, *Gompholobium tomentosum*, *Hibbertia hypericoides*, *Hibbertia subvaginata*, *Jacksonia floribunda*, *Leucopogon conostephioides*, *Petrophile linearis*, *Philotheca spicata*, *Scholtzia involucrata*, *Xanthorrhoea preissii*

**Herbs** – *Blancoa canescens*, *Burchardia congesta*, *Cassytha pomiformis*, *Conostylis juncea*, *Conostylis setigera*, *Dampiera linearis*, *Dasyopogon bromeliifolius*, *Drosera erythrorhiza*, *Drosera menziesii* subsp. *penicillaris*, *Johnsonia pubescens*, *Lomandra caespitosa*, *Lomandra hermaphrodita*, *Lomandra* sp., *Patersonia occidentalis* var. *occidentalis*, *Phlebocarya ciliata*, *Phlebocarya filifolia*, *Stylidium neurophyllum* MS, *Xanthosia huegelii*

**Sedges** – *Alexgeorgea nitens*, *Hypolaena exsulca*, *Lyginia barbata*, *Schoenus subflavus*

**Adjacent:**

**Trees** – *Allocasuarina fraseriana*, *Eucalyptus todtiana*

**Shrubs** – *Aotus procumbens*, *Beaufortia elegans*, *Lasiopetalum lineare*, *Pericalymma ellipticum* var. *floridum*

**Herbs** – *Stylidium diuroides* subsp. *diuroides*, *Stylidium schoenoides*

**Sedges** – *Lepidosperma costale*

**APPENDIX 3: Vascular Plant Taxa recorded in the Barracca Nature Reserve**

TABLE 1b: Vascular Plant Taxa listed against vegetation map units (see Map 2 and section XX).

TABLE 1b: Vascular Plant Taxa listed against quadrats (see Appendix 2 and section ).

**KEY to both tables**

**Column 1**

**SUPRA CODE**

Plants are grouped by supra code.

FER	Fern and fern allies
MON	Monocots
DIC	Dicots

**Column 2**

**FAMILY NAME**

Within supra code, plants are ordered alphabetically by family.

**Columns 3-4**

**SCIENTIFIC NAME**

Within family, plants are ordered alphabetically by genus and species.

Genus + Species + Infra Species Rank + Infra Species Name + Informal Name, mostly from the Western Australian Census (Western Australian Herbarium 2012); it was necessary to also create some supplementary numbers for plants which were not listed in the WA Census. Taxonomy from the 1984 survey has been updated (see Table 3 for cross-references between old and new names).

*	Weed
aff.	A plant with an affinity to a certain species
subsp.	Subspecies
var.	Variety
MS	A manuscript name yet to be published
PN	A phrase name for a taxon yet to be described and published.

**Column 5**

**COMMON NAME**

**Column 6**

**IS CURRENT**

A “Y” indicates that the plant name is recognized as current in the Western Australian Census (Western Australian Herbarium 2012); a “N” indicates it is not current.

**Column 7**

**CONSERVATION CODE (CONSV CODE)**

Significant plant taxa listed under the State *Wildlife Conservation Act 1950* (Government of Western Australia 2012) and by the Department of Environment and Conservation (Atkins 2012). Priority taxa conservation code listings are current as at the time of the 2012 Wildflower Society of WA survey (Western Australian Herbarium 2012). See Table 3 in Appendix 1 for further descriptions of the categories below.

T	Threatened Flora (Declared Rare Flora - Extant)
X	Presumed Extinct Flora (Declared Rare Flora – Extinct)
1	Priority 1: Poorly Known Taxa
2	Priority 2: Poorly Known Taxa
3	Priority 3: Poorly Known Taxa
4	Priority 4: Rare, Near Threatened and other taxa in need of monitoring
5	Priority 5: Conservation Dependent taxa

**Column 8**

**ENDEMIC**

Taxa (species, sub-species and varieties) endemic to WA (Western Australia, AUST (Australia) or >AUST (cosmopolitan). No records are given for weeds (see Hussey *et al.* 2007 for country of origin).

**Column 9**

**GROWTH FORM 1** (See Key to Growth Forms at the end of this key for definitions)

**Woody Plants**

T	Tree
M	Mallee
SH/T	Shrub/tree
SH	Shrub
SH-H	Shrub which is often called a herb

**Non-woody Plants: non-grass-like**

H	Herb
H-SH	Herb which is often called a shrub

**Non-woody Plants: grass-like**

G	Grass
S-C	Sedge - Cyperaceae and others
S-R	Sedge - Restionaceae
S-J	Sedge - Juncaceae and others

**Column 10**

**LIFE FORM**

A	Annual
A2	Biennial
P	Perennial
PAA	Perennial annually renewed from above ground part
PAB	Perennial annually renewed from below ground part
A-PAR	Annual - parasite or semi-parasite
P-PAR	Perennial - parasite or semi-parasite

Column 11

**LIFE FORM AQUATIC**

**Column 12**

**Life Form – aquatic**

AQD	Aquatic – damp flowering. Grows in water, flowers in damp mud
AQE	Aquatic – emergent. Grows and flowers in water with some parts emergent above water (e.g. leaves, flowers)
AQF	Aquatic – floating. Whole plant floats on water
AQS	Aquatic – supported. Grows and flowers in water with most parts supported by water (e.g. leaves); flowers may be emergent above water

**TABLE 1a**

**Columns 12-16**

**VEGETATION UNITS**

Mapping units, or communities. An “X” indicates presence.

BW	Upland - <i>Banksia</i> woodland
D	Disturbed (margins reserve), not mapped
JW	Upland - Jarrah woodland,
WW	Wetland - Wandoo woodland
Wet	Wetland – <i>Melaleuca</i> shrubland (MeS), <i>Melaleuca preissiana</i> woodland (MpW), Wetland Mosaic (WM)

**OR TABLE 1b**

Columns 12 - 30

**QUADRAT RECORDS** (quadrat adjacent - adj)

. A “X” indicates presence.

**Columns**

Table 1a 17-18

Table 1b 31-32

**FAMILY\_NID, NAME\_ID, SPECIES\_CODE**

These codes are unique to different taxa (NAME\_ID, SPECIES\_CODE) and are used when linking to names on the Western Australian Census (Western Australian Herbarium 2012). Positive NAME\_IDs are from the Western Australian Census; negative NAME\_IDs were created as part of a supplementary list.

## KEY TO GROWTH FORM DEFINITIONS

Definitions adapted from Keighery (1994), McDonald *et al.* (1990) and Executive Steering Committee for Australian Vegetation Information (2003).

### GROWTH FORM 1

#### WOODY PLANTS

**Plants with special thick-walled cells in their trunks and stems that form wood to support the plant. Trees are able to build up layer upon layer of this woody support tissue to form trunks and branches. All woody plants are perennial.**

Tree	Plants with a single trunk and a canopy. The canopy is less than or equal to two thirds of the height of the trunk. No lignotuber is evident.
Shrub/Tree	Shrub or tree
Mallee	Plants with many trunks (usually 2-5) arising from a lignotuber. The canopy is usually well above the base of the plant. Most are from the genus <i>Eucalyptus</i> .
Shrub	Plants with one or more woody stems and foliage all or part of the total height of the plant. Includes palms, grass trees ( <i>Xanthorrhoea</i> and <i>Kingia</i> species) and cycads ( <i>Zamia</i> species).
Shrub-Herb	Shrub that appears herb-like. Plants with a woody stem/s that is lax enough to give the shrub a non-woody herb-like appearance, often called sub-shrubs.

#### NON-WOODY PLANTS

**Plants with no (or insufficient) special thick-walled support cells in their stems to form wood for support. May be either annuals or perennials. Sub-divided according to growth form, pollination method and plant family.**

##### **NON-WOODY PLANTS – NON GRASS-LIKE Generally not pollinated by wind, monocots and dicots**

Herb	Plants with non-woody stems that are not grasses or sedges. Generally under half a metre tall. Most monocots are herbs except for the larger ones which are classed as shrubs such as palms, grass trees ( <i>Xanthorrhoea</i> and <i>Kingia</i> species) and cycads ( <i>Zamia</i> species).
Herb-Shrub	Herb that appears shrub-like. Plants with non-woody stems that are stiff enough to give the herb a woody shrub-like appearance, often called sub-shrubs.

##### **NON-WOODY PLANTS – GRASS-LIKE Generally pollinated by wind and from the families Poaceae, Cyperaceae, Centrolepidaceae, Hydatellaceae, Juncaginaceae, Restionaceae, Juncaceae, Typhaceae or Xyridaceae.**

<b>Grasses</b>	<b>Leaf sheath always split, ligule present, leaf usually flat, stem cross-section circular, evenly spaced internodes.</b>
Grass	Tufted or spreading plants from the family Poaceae. Some species form hummocks but none of these occur in south-west Western Australia.
<b>Sedges</b>	<b>Leaf sheath never split (except in some Restionaceae), usually no ligule, leaf not always flat, extended internode below inflorescence.</b>
Sedge – Cyperaceae and others	Tufted or spreading plants from the families Cyperaceae, Centrolepidaceae, Hydatellaceae or Juncaginaceae.
Sedge – Restionaceae	Tufted or spreading plants from the family Restionaceae. Commonly called rushes.
Sedge – Juncaceae and others	Tufted or spreading plants from the families Juncaceae, Typhaceae or Xyridaceae. Some of these are also called rushes.

APPENDIX 3 TABLE 1 Floristics of Reserves and Bushland areas on the Dandaragan Plateau (System 6) part 1: Floristics of Barracca Nature Reserve

SUPRA_CODE	FAMILY	WD	PLANT_NAME	COMMON_NAME	IS_CURRENT	CONSV_CODE	ENDEMIC	GROWTH_FORM	LIFE_FORM	LIFE_FORM_AQUATIC	MAPPING_UNIT					NAME_ID	SPECIES_CODE
											BW	D	JW	WW	Wet		
FER	Lindsaeaceae		Lindsaea linearis	Screw Fern	Y		AUST	Herb	PAB				X			59	LINLIN
FER	Lycopodiaceae		Phylloglossum drummondii	Pygmy Clubmoss	Y		>AUST	Herb	PAB	AQD				X		4	PHYDRU
FER	Selaginellaceae		Selaginella gracillima	Tiny Clubmoss	Y		>AUST	Herb	A	AQD				X		6	SELGRA
MON	Anarthriaceae		Anarthria laevis	Anarthria	Y		WA	Sedge	P					X		1060	ANALAE
MON	Anarthriaceae		Lyginia barbata	Lyginia	Y		WA	Sedge	P		X					1097	LYGBAR
MON	Anarthriaceae		Lyginia imberbis	Lyginia	Y		WA	Sedge	P			X	X			18049	LYGIMB
MON	Asparagaceae		Arthropodium preissii	Swamp Lily	N		WA	Herb	PAB					X		8787	ARTPRE
MON	Asparagaceae		Chamaescilla corymbosa	Blue Squill	Y		AUST	Herb	PAB				X			1280	CHACOR
MON	Asparagaceae		Chamaescilla sp.		N			Herb	PAB					X		-20587	CHASP.
MON	Asparagaceae		Chamaescilla versicolor	Blue Squill	Y		WA	Herb	PAB			X	X			8788	CHAUVER
MON	Asparagaceae		Laxmannia squarrosa	Paper Lily	Y		WA	Herb	P		X					1309	LAXSQU
MON	Asparagaceae		Lomandra caespitosa	Tufted Lomandra	Y		WA	Herb	P		X		X			1223	LOMCAE
MON	Asparagaceae		Lomandra hermaphrodita	Lomandra	Y		WA	Herb	P		X	X				1228	LOMHER
MON	Asparagaceae		Lomandra integra	Lomandra	Y		WA	Herb	P				X			1229	LOMINT
MON	Asparagaceae		Lomandra micrantha	Lomandra	Y		AUST	Herb	P				X	X		1232	LOMMIC
MON	Asparagaceae		Lomandra nigricans	Lomandra	Y		WA	Herb	P			X				1234	LOMNIG
MON	Asparagaceae		Lomandra preissii	Preiss's Lomandra	Y		WA	Herb	P				X			1239	LOMPRE
MON	Asparagaceae		Lomandra sericea	Silky Lomandra	Y		WA	Herb	P		X	X				1243	LOMSER
MON	Asparagaceae		Lomandra sp.		N			Herb	P		X			X		-20380	LOMSP.
MON	Asparagaceae		Lomandra suaveolens	Lomandra	Y		WA	Herb	P		X	X	X			1246	LOMSUA
MON	Asparagaceae		Sowerbaea laxiflora	Purple Tassels	Y		WA	Herb	PAB			X	X	X		1312	SOWLAX
MON	Asparagaceae		Thysanotus gracilis	Fringed Lily	Y		WA	Herb	PAA/A					X		1335	THYGRA
MON	Asparagaceae		Thysanotus manglesianus	Twining Fringed Lily	Y		WA	Herb	PAB				X	X	X	1338	THYMAN
MON	Asparagaceae		Thysanotus sparteus	Fringed Lily	Y		WA	Herb	P			X				1351	THYSPA
MON	Asparagaceae		Thysanotus tenellus	Fringed Lily	Y		WA	Herb	PAB				X	X		1354	THYTEN
MON	Boryaceae		Borya scirpoidea	Granite Pincushions	Y		WA	Herb	P					X		1272	BORSCI
MON	Boryaceae		Borya sphaerocephala	Swamp Pincushions	Y		WA	Herb	P				X			1273	BORSPH
MON	Centrolepidaceae		Aphelia cyperoides	Hairy Aphelia	Y		WA	Sedge	A			X	X			1117	APHCYP
MON	Centrolepidaceae		Centrolepis aristata	Pointed Centrolepis	Y		AUST	Sedge	A				X	X		1121	CENARI
MON	Centrolepidaceae		Centrolepis drummondiana	Sand Centrolepis	Y		AUST	Sedge	A		X					1125	CENDRU
MON	Centrolepidaceae		Centrolepis polygyna	Wiry Centrolepis	Y		AUST	Sedge	A				X			1134	CENPOL
MON	Colchicaceae		Burchardia bairdiae	Baird's Kara	Y		WA	Herb	PAB				X	X		1383	BURBAI
MON	Colchicaceae		Burchardia congesta	Kara	Y		WA	Herb	PAB		X	X				12770	BURCON
MON	Colchicaceae		Burchardia multiflora	Kara	Y		WA	Herb	PAB				X	X		1385	BURMUL
MON	Colchicaceae		Wurmbea dioica subsp. alba	Early Nancy	Y		AUST	Herb	PAB					X		12072	WURDIOALB
MON	Cyperaceae		Caustis dioica	Caustis	Y		WA	Sedge	P				X			760	CAUDIO
MON	Cyperaceae		Chorizandra enodis	Black Bristlerush	Y		AUST	Sedge	P	AQD				X		763	CHOENO
MON	Cyperaceae		Cyathochaeta avenacea	Cyathochaeta	Y		WA	Sedge	P					X		768	CYAAVE
MON	Cyperaceae	*	Cyperus tenellus	Tiny Flat Sedge	Y			Sedge	P					X		815	CYPTEN
MON	Cyperaceae		Isolepis cernua	Nodding Clubrush	Y		>AUST	Sedge	A					X		910	ISOCER
MON	Cyperaceae	*	Isolepis marginata	Coarse Clubrush	Y			Sedge	A			X	X			917	ISOMAR

APPENDIX 3 TABLE 1 Floristics of Reserves and Bushland areas on the Dandaragan Plateau (System 6) part 1: Floristics of Barracca Nature Reserve

CODE	FAMILY	WD	PLANT_NAME	COMMON_NAME	CURRENT	CODE	ENDEMIC	FORM	LIFE_FORM	AQUATIC	BW	D	JW	WW	Wet	NAME_ID	SPECIES_CODE
MON	Cyperaceae		Isolepis oldfieldiana	Oldfield's Clubrush	Y		WA	Sedge	A					X		919	ISOOLD
MON	Cyperaceae		Lepidosperma costale	Lepidosperma	Y		WA	Sedge	P		X		X	X		930	LEPCOS
MON	Cyperaceae		Lepidosperma longitudinale	Swamp Swordsedge	Y		AUST	Sedge	P						X	937	LEPLON
MON	Cyperaceae		Lepidosperma scabrum	Rough Lepidosperma	Y		WA	Sedge	P		X					944	LEPSCA
MON	Cyperaceae		Lepidosperma sp.		N			Sedge	P				X			-20419	LEPSP.
MON	Cyperaceae		Lepidosperma squamatum	Common Lepidosperma	Y		WA	Sedge	P		X		X		X	945	LEPSQU
MON	Cyperaceae		Lepidosperma viscidum	Sticky Swordsedge	Y		WA	Sedge	P						X	951	LEPVIS
MON	Cyperaceae		Mesomelaena pseudostygia	Semaphore Sedge	Y		WA	Sedge	P		X					955	MESPSE
MON	Cyperaceae		Mesomelaena tetragona	Large Semaphore Sedge	Y		WA	Sedge	P				X	X		957	MESTET
MON	Cyperaceae		Schoenus ?elegans	Schoenus	Y		WA	Sedge	A						X	-21463	SCH?EL
MON	Cyperaceae		Schoenus andrewsii	Andrew's Schoenus	Y		WA	Sedge	P					X		971	SCHAND
MON	Cyperaceae		Schoenus bifidus	Schoenus	Y		WA	Sedge	P					X		975	SCHBIF
MON	Cyperaceae		Schoenus caespitius	Schoenus	Y		WA	Sedge	P						X	979	SCHCAE
MON	Cyperaceae		Schoenus clandestinus	Schoenus	Y		WA	Sedge	P				X			982	SCHCLA
MON	Cyperaceae		Schoenus curvifolius	Schoenus	Y		WA	Sedge	P		X					984	SCHCUR
MON	Cyperaceae		Schoenus plumosus	Schoenus	Y		WA	Sedge	A						X	17614	SCHPLU
MON	Cyperaceae		Schoenus rigens	Schoenus	Y		WA	Sedge	P				X	X		1011	SCHRIG
MON	Cyperaceae		Schoenus sculptus	Schoenus	Y		AUST	Sedge	A						X	1013	SCHSCU
MON	Cyperaceae		Schoenus sp.		Y			Sedge							X	-20378	SCHSP.
MON	Cyperaceae		Schoenus subflavus	Schoenus	Y		WA	Sedge	P		X					1019	SCHSUB
MON	Cyperaceae		Schoenus unispiculatus	Schoenus	Y		WA	Sedge	P				X			1026	SCHUNI
MON	Cyperaceae		Tetraria octandra	Tetraria	Y		WA	Sedge	P		X		X			1036	TETOCT
MON	Cyperaceae		Tricostularia neesii	Tricostularia	Y		WA	Sedge	P				X	X		1038	TRINEE
MON	Dasyopogonaceae		Calectasia narragara	Blue Tinsel Lily	Y		WA	Herb	P		X		X			19309	CALNAR
MON	Dasyopogonaceae		Dasyopogon bromeliifolius	Pineapple Bush	Y		WA	Herb	P		X		X			1218	DASBRO
MON	Haemodoraceae		Anigozanthos bicolor	Little Kangaroo Paw	Y		WA	Herb	PAB					X	X	1406	ANIBIC
MON	Haemodoraceae		Anigozanthos humilis	Catspaw	Y		WA	Herb	PAB		X		X			1409	ANIHUM
MON	Haemodoraceae		Anigozanthos manglesii	Kangaroo Paw	Y		WA	Herb	PAB				X			1411	ANIMAN
MON	Haemodoraceae		Blancoa canescens	Red Bugle	Y		WA	Herb	P		X					1417	BLACAN
MON	Haemodoraceae		Conostylis aculeata ssp. bracteata FPR = bromelioides	Prickly Conostylis	N		WA	Herb	P					X		-993	CONACUBR
MON	Haemodoraceae		Conostylis aculeata subsp. aculeata	Prickly Conostylis	Y		WA	Herb	P		X		X			11826	CONACUACU
MON	Haemodoraceae		Conostylis caricina	Conostylis	Y		WA	Herb	P				X			1429	CONCAR
MON	Haemodoraceae		Conostylis juncea	Conostylis	Y		WA	Herb	P		X		X			1436	CONJUN
MON	Haemodoraceae		Conostylis setigera	Conostylis	Y		WA	Herb	P		X		X	X		1454	CONSET
MON	Haemodoraceae		Haemodorum discolor	Haemodorum	Y		WA	Herb	PAB				X			1465	HAEDIS

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MON	Haemodoraceae		Haemodorum laxum	Haemodorum	Y		WA	Herb	PAB				X			1468	HAELAX
MON	Haemodoraceae		Haemodorum simplex	Haemodorum	Y		WA	Herb	PAB					X		1472	HAESIM
MON	Haemodoraceae		Haemodorum spicatum	Haemodorum	Y		WA	Herb	PAB				X	X		1475	HAESPI
MON	Haemodoraceae		Phlebocarya ciliata	Phlebocarya	Y		WA	Herb	P		X					1478	PHLCIL
MON	Haemodoraceae		Phlebocarya filifolia	Phlebocarya	Y		WA	Herb	P		X					1479	PHLFIL
MON	Haemodoraceae		Tribonanthes australis	Tribonanthes	Y		WA	Herb	PAB						X	1481	TRIAUS
MON	Haemodoraceae		Tribonanthes longipetala	Tribonanthes	Y		WA	Herb	PAB					X		1483	TRILON
MON	Hemerocallidaceae		Caesia micrantha	Pale Grasslily	Y		WA	Herb	PAB		X		X			1276	CAEMIC
MON	Hemerocallidaceae		Caesia micrantha (Large swamp form) (BJ Keighery and N Gibson 094)	Pale Grasslily	N		WA	Herb	PAB						X	-20182	CAEMICL
MON	Hemerocallidaceae		Johnsonia pubescens	Hairy Johnsonia	Y		WA	Herb	P		X					1298	JOHPUB
MON	Hemerocallidaceae		Tricoryne elatior	Yellow Summer Lily	Y		AUST	Herb	P				X			1361	TRIELA
MON	Hemerocallidaceae		Tricoryne humilis	Yellow Summer Lily	Y		WA	Herb	PAB					X		1362	TRIHUM
MON	Hypoxidaceae		Hypoxis occidentalis	Yellow Star	Y		WA	Herb	PAB						X	1503	HYPOCC
MON	Iridaceae	*	Gladiolus caryophyllaceus	Pink Gladiolus	Y			Herb	PAB		X		X	X	X	1520	GLACAR
MON	Iridaceae		Patersonia juncea	Thin-leaved Flag	Y		WA	Herb	P				X	X		1546	PATJUN
MON	Iridaceae		Patersonia occidentalis	Purple Flag	Y		AUST	Herb	P						X	1550	PATOCC
MON	Iridaceae		Patersonia occidentalis var. angustifolia	Swamp Flag	Y		WA	Herb	P					X		30471	PATOCCANG
MON	Iridaceae		Patersonia occidentalis var. occidentalis	Purple Flag	Y		WA	Herb	P		X		X	X		30472	PATOCCOCC
MON	Iridaceae		Patersonia pygmaea	Pygmy Flag	Y		WA	Herb	P				X			1551	PATPYG
MON	Iridaceae	*	Romulea rosea	Guildford Grass	Y			Herb	PAB				X	X	X	1556	ROMROS
MON	Juncaceae		Juncus bufonius	Toadrush	Y		>AUST	Sedge	A						X	-20854	JUNBUF
MON	Juncaceae	*	Juncus bufonius	Toadrush	Y			Sedge	A						X	1178	JUNBUF
MON	Juncaceae	*	Juncus capitatus	Capitate Rush	Y			Sedge	A						X	1180	JUNCAP
MON	Orchidaceae		Caladenia flava	Cowslip Orchid	Y		WA	Herb	PAB				X			1592	CALFLA
MON	Orchidaceae	*	Disa bracteata	South African Orchid	Y			Herb	PAB					X		19649	DISBRA
MON	Orchidaceae		Diuris laxiflora	Bee Orchid	Y		WA	Herb	PAB						X	1634	DIULAX
MON	Orchidaceae		Elythranthera brunonis	Purple Enamel Orchid	Y		WA	Herb	PAB				X			1643	ELYBRU
MON	Orchidaceae		Elythranthera emarginata	Pink Enamel Orchid	Y		WA	Herb	PAB					X		1644	ELYEMA
MON	Orchidaceae		Eriochilus helonomos	Swamp Bunny Orchid	Y		WA	Herb	PAB						X	15414	ERIHIL
MON	Orchidaceae		Leporella fimbriata	Hare Orchid	Y		WA	Herb	PAB				X			1653	LEPFIM
MON	Orchidaceae		Prasophyllum sp.		N			Herb	PAB						X	-20389	PRASP.
MON	Orchidaceae		Pterostylis recurva	Jug Orchid	Y		WA	Herb	PAB				X			1693	PTEREC
MON	Orchidaceae		Pyrorchis nigricans	Red Beaks	Y		AUST	Herb	PAB				X	X		16367	PYRNIG
MON	Orchidaceae		Thelymitra antennifera	Lemon-scented Sun Orchid	Y		WA	Herb	PAB						X	1701	THEANT
MON	Orchidaceae		Thelymitra crinita	Blue Lady Orchid	Y		WA	Herb	PAB				X	X	X	1705	THECRI
MON	Orchidaceae		Thelymitra vulgaris	Sun Orchid	Y		WA	Herb	PAB					X	X	20731	THEVUL



APPENDIX 3 TABLE 1 Floristics of Reserves and Bushland areas on the Dandaragan Plateau (System 6) part 1: Floristics of Barracca Nature Reserve

CODE	FAMILY	WD	PLANT_NAME	COMMON_NAME	CURRENT	CODE	ENDEMIC	FORM	LIFE_FORM	AQUATIC	BW	D	JW	WW	Wet	NAME_ID	SPECIES_CODE
MON	Philydraceae		Philydrella pygmaea subsp. pygmaea	Common Philydrella	Y		WA	Herb	PAB					X	X	14306	PHIPYGPYG
MON	Poaceae	*	Aira caryophyllea	Silvery Hairgrass	Y			Grass	A				X		X	184	AIRCAR
MON	Poaceae	*	Aira cupaniana	Hairgrass	Y			Grass	A			X		X		185	AIRCUP
MON	Poaceae		Amphipogon amphipogonoides	Amphipogon	Y		WA	Grass	P				X			194	AMPAMP
MON	Poaceae		Amphipogon strictus	Amphipogon	Y		>AUST	Grass	P				X			199	AMPSTR
MON	Poaceae		Amphipogon turbinatus	Amphipogon	Y		WA	Grass	P				X			200	AMPTUR
MON	Poaceae		Austrodanthonia occidentalis	Western Wallaby Grass	Y		WA	Grass	P		X			X		17949	AUSOCC
MON	Poaceae		Austrostipa compressa	Golden Speargrass	Y		WA	Grass	P					X		17234	AUSCOM
MON	Poaceae		Austrostipa elegantissima	Feather Speargrass	Y		AUST	Grass	P					X		17237	AUSELE
MON	Poaceae	*	Avena barbata	Bearded Oat	Y			Grass	A			X			X	233	AVEBAR
MON	Poaceae	*	Briza maxima	Blowfly Grass	Y			Grass	A			X	X	X	X	244	BRIMAX
MON	Poaceae	*	Briza minor	Shivery Grass	Y			Grass	A			X		X	X	245	BRIMIN
MON	Poaceae	*	Bromus diandrus	Great Brome	Y			Grass	A			X				249	BRODIA
MON	Poaceae	*	Ehrharta calycina	Perennial Veldtgrass	Y			Grass	P			X				347	EHRCAL
MON	Poaceae	*	Ehrharta longiflora	Annual Veldtgrass	Y			Grass	A			X		X		349	EHRLOL
MON	Poaceae	*	Eragrostis curvula	African Love Grass	Y			Grass	P			X				376	ERACUR
MON	Poaceae	*	Lolium multiflorum	Italian Ryegrass	Y			Grass	A			X			X	475	LLOLMUL
MON	Poaceae		Microlaena stipoides	Weeping Grass	Y		>AUST	Grass	P				X			485	MICSTI
MON	Poaceae		Neurachne alopecuroidea	Foxtail Mulga Grass	Y		AUST	Grass	P				X	X	X	492	NEUALO
MON	Poaceae	*	Pentaschistis airoides	False Hairgrass	Y			Grass	A					X		543	PENAIR
MON	Poaceae		Polypogon tenellus	Native Barbgrass	Y		WA	Grass	A						X	583	POLTEN
MON	Poaceae	*	Vulpia myuros	Rat's Tail Fescue	Y			Grass	A		X	X		X	X	724	VULMYU
MON	Poaceae	*	Vulpia sp.		N			Grass	A						X	-20387	VULSP.
MON	Restionaceae		Alexgeorgea nitens	Alexgeorgea	Y		WA	Sedge	P		X		X			1056	ALENIT
MON	Restionaceae		Desmocladus asper	Desmocladus	Y		WA	Sedge	P					X		17663	DESASP
MON	Restionaceae		Desmocladus fasciculatus	Desmocladus	Y		WA	Sedge	P		X		X	X		17691	DEFAS
MON	Restionaceae		Dielsia stenostachya	Dielsia	Y		WA	Sedge	P	AQD					X	17838	DIESTE
MON	Restionaceae		Hypolaena exsulca	Common Hypolaena	Y		WA	Sedge	P		X				X	1070	HYPEXS
MON	Restionaceae		Lepidobolus preissianus	Lepidobolus	Y		WA	Sedge	P					X		1075	LEPPRE
MON	Restionaceae		Lepyrodia macra	Lepyrodia	Y		WA	Sedge	P	AQD/AQE				X		1088	LEPMAC
MON	Xanthorrhoeaceae		Xanthorrhoea acanthostachya	Prickly Balga	Y		WA	Shrub	P				X			1249	XANACA
MON	Xanthorrhoeaceae		Xanthorrhoea brunonis	Squat Balga	Y		WA	Shrub	P		X			X	X	1251	XANBRU
MON	Xanthorrhoeaceae		Xanthorrhoea preissii	Balga	Y		WA	Shrub	P		X		X	X	X	1256	XANPRE
DIC	Amaranthaceae		Ptilotus manglesii	Mulla Mulla	Y		WA	Herb	PAB					X		2742	PTIMAN
DIC	Apiaceae		Eryngium pinnatifidum subsp. umbrophilum MS		Y	2	WA	Herb	PAB	AQD					X	29560	ERYPINUMB
DIC	Apiaceae		Schoenolaena juncea	Rush Umbel	Y		WA	Herb	PAB						X	6263	SCHJUN

APPENDIX 3 TABLE 1 Floristics of Reserves and Bushland areas on the Dandaragan Plateau (System 6) part 1: Floristics of Barracca Nature Reserve

CODE	FAMILY	WD	PLANT_NAME	COMMON_NAME	CURRENT	CODE	ENDEMIC	FORM	LIFE_FORM	AQUATIC	BW	D	JW	WW	Wet	NAME_ID	SPECIES_CODE
DIC	Apiaceae		Xanthosia huegelii	Xanthosia	Y		AUST	Herb	P		X		X			6289	XANHUE
DIC	Araliaceae		Hydrocotyle alata	Pennywort	Y		WA	Herb	A				X	X		6223	HYDALA
DIC	Araliaceae		Hydrocotyle callicarpa	Pennywort	Y		AUST	Herb	A				X			6226	HYDCAL
DIC	Araliaceae		Trachymene pilosa	Small Laceflower	Y		AUST	Herb	A		X		X			6280	TRAPIL
DIC	Asteraceae		Angianthus preissianus	Preiss's Angianthus	Y		AUST	Herb	A	AQD					X	7833	ANGPRE
DIC	Asteraceae	*	Arctotheca calendula	Capeweed	Y			Herb	A			X			X	7838	ARCCAL
DIC	Asteraceae		Asteridea pulverulenta	Common Bristle Daisy	Y		WA	Herb	A		X					7851	ASTPUL
DIC	Asteraceae		Brachyscome bellidioides	Brachyscome	Y		WA	Herb	A					X		7867	BRABEL
DIC	Asteraceae		Brachyscome pusilla	Brachyscome	Y		WA	Herb	A					X		7883	BRAPUS
DIC	Asteraceae	*	Cotula bipinnata	Fern Cotula	Y			Herb	A			X				7944	COTBIP
DIC	Asteraceae		Cotula coronopifolia	Waterbuttons	Y		>AUST	Herb	A/P	AQD/AQE		X			X	-20979	COTCOR
DIC	Asteraceae		Cotula cotuloides	Smooth Cotula	Y		AUST	Herb	A	AQD/AQE					X	7946	COTCOT
DIC	Asteraceae		Hyalosperma cotula	Hyalosperma	Y		WA	Herb	A				X	X	X	12741	HYACOT
DIC	Asteraceae	*	Hypochaeris glabra	Flatweed	Y			Herb	A		X			X	X	8086	HYPGLA
DIC	Asteraceae		Lagenophora huegelii	Western Lagenophora	Y		AUST	Herb	PAB				X	X	X	18585	LAGHUE
DIC	Asteraceae		Millotia myosotidifolia	Broadleaf Millotia	Y		AUST	Herb	A				X			8105	MILMYO
DIC	Asteraceae		Millotia tenuifolia	Soft Millotia	Y		AUST	Herb	A					X		8106	MILTEN
DIC	Asteraceae		Podotheca gnaphalioides	Golden Podotheca	Y		WA	Herb	A				X	X	X	8184	PODGNA
DIC	Asteraceae		Pterochaeta paniculata	Woolly Waitzia	Y		WA	Herb	A		X		X			13255	PTEPAN
DIC	Asteraceae		Quinetia urvillei	Quinetia	Y		AUST	Herb	A		X		X		X	8195	QUIURV
DIC	Asteraceae		Quinetia urvillei "green swamp form" (GK 17264)		N		?AUST	Herb	A						X	-21460	QUIURV
DIC	Asteraceae		Senecio multicaulis	Groundsel	Y			Herb	A					X		20662	SENMUL
DIC	Asteraceae		Siloxerus filifolius	Siloxerus	Y		WA	Herb	A				X	X		8224	SILFIL
DIC	Asteraceae		Siloxerus humifusus	Siloxerus	Y		WA	Herb	A		X				X	8225	SILHUM
DIC	Asteraceae		Siloxerus multiflorus	Siloxerus	Y		WA	Herb	A						X	14583	SILMUL
DIC	Asteraceae	*	Ursinia anthemoides	Ursinia	Y			Herb	A			X	X	X	X	8255	URSANT
DIC	Asteraceae		Waitzia suaveolens	White Immortelle	Y		WA	Herb	A				X	X		8282	WAISUA
DIC	Campanulaceae		Lobelia tenuior	Slender Lobelia	Y		WA	Herb	A				X			7408	LOBTEN
DIC	Campanulaceae	*	Monopsis debilis	Monopsis	Y			Herb	A						X	7410	MONDEB
DIC	Campanulaceae	*	Wahlenbergia capensis	Cape Bluebell	Y			Herb	A				X			7384	WAHCAP
DIC	Campanulaceae		Wahlenbergia preissii	Preiss's Native Bluebell	Y		AUST	Herb	A		X		X			7389	WAHPRE
DIC	Casuarinaceae		Allocasuarina fraseriana	Fraser's Sheoak	Y		WA	Tree	P		X					1728	ALLFRA
DIC	Casuarinaceae		Allocasuarina humilis	Dwarf Sheoak	Y		WA	Shrub	P		X		X	X		1732	ALLHUM
DIC	Celastraceae		Stackhousia monogyna	Stackhousia	Y		AUST	Herb	P				X			4733	STAMON
DIC	Celastraceae		Stackhousia pubescens	Downy Stackhousia	N		WA	Herb	P		X		X			9070	STAPUB
DIC	Celastraceae		Tripterococcus brunonis	Tripterococcus	Y		WA	Herb	P				X			4737	TRIBRU
DIC	Dilleniaceae		Hibbertia acerosa	Needle-leaved Hibbertia	Y		WA	Shrub	P		X					5108	HIBACE
DIC	Dilleniaceae		Hibbertia huegelii	Huegel's Hibbertia	Y		WA	Shrub	P		X		X			5134	HIBHUE

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DIC	Dilleniaceae		Hibbertia hypericoides	Common Hibbertia	Y		WA	Shrub	P		X		X			5135	HIBHYP
DIC	Dilleniaceae		Hibbertia racemosa	Stalked Hibbertia	Y		WA	Shrub	P		X					5162	HIBRAC
DIC	Dilleniaceae		Hibbertia spicata subsp. spicata	Hibbertia	Y		WA	Shrub	P				X			11481	HIBSPISPI
DIC	Dilleniaceae		Hibbertia stellaris	Swamp Hibbertia	Y		WA	Shrub	P	AQD				X		5172	HIBSTE
DIC	Dilleniaceae		Hibbertia subvaginata	Hibbertia	Y		WA	Shrub	P		X		X	X		5173	HIBSUB
DIC	Droseraceae		Drosera erythrorhiza	Red Ink Sundew	Y		WA	Herb	PAB		X		X	X		3095	DROERY
DIC	Droseraceae		Drosera gigantea subsp. gigantea	Giant Sundew	Y		WA	Herb	PAB	AQD			X	X		15453	DROGIGGIG
DIC	Droseraceae		Drosera glanduligera	Sundew	Y		AUST	Herb	A				X	X		3098	DROGLA
DIC	Droseraceae		Drosera heterophylla	Rainbow	Y		WA	Herb	PAB	AQD				X		3101	DROHET
DIC	Droseraceae		Drosera menziesii subsp. menziesii	Menzies' Rainbow	Y		WA	Herb	PAB	AQD			X			11853	DROMENMEN
DIC	Droseraceae		Drosera menziesii subsp. penicillaris	Menzies' Rainbow	Y		WA	Herb	PAB		X		X	X		13216	DROMENPEN
DIC	Droseraceae		Drosera menziesii subsp. thysanosepala		Y		WA	Herb	PAB					X		11196	DROMENTHY
DIC	Droseraceae		Drosera pallida	Rainbow	Y		WA	Herb	PAB				X	X		3118	DROPAL
DIC	Ericaceae		Astroloma pallidum	Astroloma	Y		WA	Shrub	P		X					6334	ASTPAL
DIC	Ericaceae		Astroloma stomarrhena	Astroloma	Y		WA	Shrub	P		X		X			6337	ASTSTO
DIC	Ericaceae		Conostephium minus	Pearlflower	Y		WA	Shrub	P		X		X			6347	CONMIN
DIC	Ericaceae		Conostephium pendulum	Pearlflower	Y		WA	Shrub	P		X		X			6348	CONPEN
DIC	Ericaceae		Conostephium preissii	Preiss's Pearlflower	Y		WA	Shrub	P				X			6349	CONPRE
DIC	Ericaceae		Leucopogon conostephioides	Beard Heath	Y		WA	Shrub	P		X					6374	LEUCON
DIC	Ericaceae		Styphelia tenuiflora	Pin Heath	Y		WA	Shrub	P				X			6476	STYTEN
DIC	Euphorbiaceae		Monotaxis grandiflora	Monotaxis	Y		WA	Herb	P				X			4662	MONGRA
DIC	Fabaceae		Acacia applanata	Yellow Grass Wattle	Y		WA	Shrub	P		X		X			15466	ACAAPP
DIC	Fabaceae		Acacia drewiana	Drew's Wattle	Y		WA	Shrub	P				X			3310	ACADRE
DIC	Fabaceae		Acacia huegelii	Huegel's Wattle	Y		WA	Shrub	P		X					3374	ACAHUE
DIC	Fabaceae		Acacia pulchella	Prickly Moses	Y		WA	Shrub	P				X	X		3502	ACAPUL
DIC	Fabaceae		Acacia saligna	Coojong	Y		WA	Shrub	P					X		3527	ACASAL
DIC	Fabaceae		Aotus procumbens	Prostrate Aotus	Y		WA	Shrub	P		X		X	X		3692	AOTPRO
DIC	Fabaceae		Bossiaea eriocarpa	Common Bossiaea	Y		WA	Shrub	P		X		X		X	3710	BOSERI
DIC	Fabaceae		Chorizema dicksonii	Hills Flame Pea	Y		WA	Shrub	P				X			3753	CHODIC
DIC	Fabaceae		Daviesia decurrens	Daviesia	Y		WA	Shrub	P				X			3805	DAVDEC
DIC	Fabaceae		Daviesia divaricata	Daviesia	Y		WA	Shrub	P					X		3807	DAVDIV
DIC	Fabaceae		Daviesia incrassata	Daviesia	Y		WA	Shrub	P					X		3816	DAVINC
DIC	Fabaceae		Daviesia physodes	Daviesia	Y		WA	Shrub	P		X					3832	DAVPHY
DIC	Fabaceae		Daviesia preissii	Preiss's Daviesia	Y		WA	Shrub	P				X	X		3835	DAVPRE
DIC	Fabaceae		Daviesia triflora	Three-flowered Daviesia	Y		WA	Shrub	P		X					3845	DAVTRI
DIC	Fabaceae		Dillwynia cinerascens		N		WA	Shrub	P				X			8385	DILCIN

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DIC	Fabaceae		Gastrolobium capitatum	Common Gastrolobium	Y		WA	Shrub	P				X			20475	GASCAP
DIC	Fabaceae		Gompholobium aristatum	Yellow Gompholobium	Y		WA	Shrub	P					X		3945	GOMARI
DIC	Fabaceae		Gompholobium knightianum	Pink Climbing Gompholobium	Y		WA	Shrub	P		X		X			3950	GOMKNI
DIC	Fabaceae		Gompholobium marginatum	Little Gompholobium	Y		WA	Shrub	P				X	X		3951	GOMMAR
DIC	Fabaceae		Gompholobium preissii	Preiss's Gompholobium	Y		WA	Shrub	P				X			3955	GOMPRES
DIC	Fabaceae		Gompholobium tomentosum	Common Gompholobium	Y		WA	Shrub	P		X		X			3957	GOMTOM
DIC	Fabaceae		Hovea trisperma var. grandiflora	Common Hovea	Y		WA	Shrub	P		X		X			12907	HOVTRIGRA
DIC	Fabaceae		Hovea trisperma var. trisperma	Common Hovea	Y		WA	Shrub	P		X					12859	HOVTRITRI
DIC	Fabaceae		Isotropis cuneifolia	Granny's Bonnets	Y		WA	Herb	P				X			3992	ISOCUN
DIC	Fabaceae		Jacksonia floribunda	Holly Jacksonia	Y		WA	Shrub	P		X		X			4010	JACFLO
DIC	Fabaceae	*	Lotus angustissimus	Slender Birdsfoot Trefoil	Y			Herb	A	AQD		X				4059	LOTANG
DIC	Gentianaceae	*	Cicendia filiformis	Cicendia	Y			Herb	A					X		6543	CICFIL
DIC	Geraniaceae	*	Erodium botrys	Long Storksbill	Y			Herb	A				X			4332	EROBOT
DIC	Goodeniaceae		Dampiera linearis	Dampiera	Y		WA	Herb	P		X		X	X		7454	DAMLIN
DIC	Goodeniaceae		Dampiera teres	Dampiera	Y		WA	Herb	P				X	X		7482	DAMTER
DIC	Goodeniaceae		Goodenia coerulea	Goodenia	Y		WA	Herb	P				X			29362	GOOCOE
DIC	Goodeniaceae		Goodenia micrantha	Goodenia	Y		WA	Herb	P	AQD				X		12551	GOOMIC
DIC	Goodeniaceae		Lechenaultia biloba	Blue Leschenaultia	Y		WA	Herb	P				X	X		7568	LECBIL
DIC	Goodeniaceae		Lechenaultia floribunda	Leschenaultia	Y		WA	Herb	P		X		X			7574	LECFLO
DIC	Goodeniaceae		Scaevola calliptera	Royal Robe Fanflower	Y		WA	Herb	P					X		7602	SCACAL
DIC	Goodeniaceae		Scaevola canescens	Fanflower	Y		WA	Herb	P				X			7603	SCACAN
DIC	Goodeniaceae		Scaevola phlebopetala	Royal Robe Fanflower	Y		WA	Herb	P		X		X			7634	SCAPHL
DIC	Haloragaceae		Gonocarpus nodulosus	Gonocarpus	Y		WA	Herb	A	AQD			X	X		6159	GONNOD
DIC	Haloragaceae		Gonocarpus pithyoides	Gonocarpus	Y		WA	Herb	P		X		X	X		6161	GONPIT
DIC	Lamiaceae		Hemigenia barbata	Hemigenia	Y		WA	Shrub	P				X			6842	HEMBAR
DIC	Lauraceae		Cassytha aurea	Dodder Laurel	Y		AUST	Herb	P-PAR		X		X			2948	CASAUR
DIC	Lauraceae		Cassytha glabella	Dodder Laurel	Y		WA	Herb	P-PAR				X	X		2952	CASGLA
DIC	Lauraceae		Cassytha pomiformis	Dodder Laurel	Y		WA	Herb	P-PAR		X		X	X		2956	CASPOM
DIC	Lauraceae		Cassytha sp.		N			Herb	P-PAR					X		-20399	CASSP.
DIC	Lentibulariaceae		Utricularia multifida	Pink Petticoats	Y		WA	Herb	A	AQD				X		7148	UTRMUL
DIC	Loganiaceae		Phyllangium paradoxum	Phyllangium	Y		WA	Herb	A		X		X	X		16177	PHYPAR
DIC	Loranthaceae		Amyema miquelii	Broad-leaved Mistletoe	Y		AUST	Shrub	P-PAR				X	X		2380	AMYMIQ
DIC	Loranthaceae		Nuytsia floribunda	Christmas Tree	Y		WA	Tree	P-PAR		X		X			2401	NUYFLO
DIC	Malvaceae		Lasiopetalum lineare	Lasiopetalum	Y	3	WA	Shrub	P		X					5036	LASLIN

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DIC	Myrtaceae		Babingtonia camphorosmae	Camphor Myrtle	Y		WA	Shrub	P				X	X		36441	BABCAM
DIC	Myrtaceae		Beaufortia elegans	Pink Beaufortia	Y		WA	Shrub	P		X					5382	BEAELE
DIC	Myrtaceae		Calothamnus sanguineus	Silky-leaved Calothamnus	Y		WA	Shrub	P		X		X			5429	CALSAN
DIC	Myrtaceae		Calytrix angulata	Yellow Starflower	Y		WA	Shrub	P		X					5439	CALANG
DIC	Myrtaceae		Calytrix flavescens	Yellow Summer Starflower	Y		WA	Shrub	P		X		X			5458	CALFLA
DIC	Myrtaceae		Calytrix fraseri	Pink Summer Starflower	Y		WA	Shrub	P		X					5460	CALFRA
DIC	Myrtaceae		Calytrix leschenaultii	Leschenault's Starflower	Y		WA	Shrub	P		X		X			5465	CALLES
DIC	Myrtaceae		Calytrix variabilis	Variable Starflower	Y		WA	Shrub	P				X			5485	CALVAR
DIC	Myrtaceae		Corymbia calophylla	Marri	Y		WA	Tree	P		X		X	X	X	17104	CORCAL
DIC	Myrtaceae		Eremaea pauciflora	Sandplain Eremaea	Y		WA	Shrub	P		X					5541	ERPAU
DIC	Myrtaceae		Eucalyptus marginata subsp. thalassica	Blue-leaved Jarrah	Y		WA	Tree	P		X		X		X	13548	EUCMARTHA
DIC	Myrtaceae		Eucalyptus tottiana	Pricklybark	Y		WA	Tree	P		X		X			5790	EUCTOD
DIC	Myrtaceae		Eucalyptus wandoo	Wandoo	Y		WA	Tree	P					X	X	5797	EUCWAN
DIC	Myrtaceae		Hypocalymma angustifolium	White Myrtle	Y		WA	Shrub	P					X	X	5817	HYPANG
DIC	Myrtaceae		Kunzea ?recurva	Purple Swamp Kunzea	Y		WA	Shrub	P						X	-20992	KUN?RE
DIC	Myrtaceae		Kunzea recurva	Purple Swamp Kunzea	Y		WA	Shrub	P						X	5841	KUNREC
DIC	Myrtaceae		Leptospermum spinescens	Spiny Leptospermum	Y		WA	Shrub	P		X					5857	LEPSPI
DIC	Myrtaceae		Melaleuca brevifolia		Y		WA	Shrub	P						X	5881	MELBRE
DIC	Myrtaceae		Melaleuca osullivanii	Osullivan's Melaleuca	Y		WA	Shrub	P						X	20297	MELOSU
DIC	Myrtaceae		Melaleuca preissiana	Preiss's Paperbark	Y		WA	Tree	P						X	5952	MELPRE
DIC	Myrtaceae		Melaleuca raphiophylla	Freshwater Paperbark	Y		WA	Shrub	P	AQD					X	5959	MELRHA
DIC	Myrtaceae		Melaleuca trichophylla	Pink Honeymyrtle	Y		WA	Shrub	P		X					5983	MELTRI
DIC	Myrtaceae		Melaleuca viminea	Swamp Honeymyrtle	Y		WA	Shrub	P						X	5987	MELVIM
DIC	Myrtaceae		Pericalymma ellipticum var. floridum	Pericalymma	Y		WA	Shrub	P		X				X	16478	PERELLFLO
DIC	Myrtaceae		Scholtzia involucreta	Scholtzia	Y		WA	Shrub	P		X					6033	SCHINV
DIC	Myrtaceae		Verticordia acerosa var. preissii	Golden Featherflower	Y		WA	Shrub	P					X		12388	VERACEPRE
DIC	Myrtaceae		Verticordia densiflora var. cespitosa	Compacted Featherflower	Y		WA	Shrub	P					X		12411	VERDENCES
DIC	Myrtaceae		Verticordia densiflora var. densiflora	Compacted Featherflower	Y		WA	Shrub	P				X	X	X	15432	VERDENDEN

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DIC	Myrtaceae		Verticordia huegelii var. huegelii	Variegated Featherflower	Y		WA	Shrub	P					X		15433	VERHUEHUE
DIC	Myrtaceae		Verticordia insignis subsp. compta		Y		WA	Shrub	P					X		12433	VERINSCOM
DIC	Myrtaceae		Verticordia plumosa var. brachyphylla	Plumed Featherflower	Y		WA	Shrub	P					X		12449	VERPLUBRA
DIC	Orobanchaceae	*	Parentucellia latifolia	Red Bartsia	Y			Herb	A				X	X		7089	PARLAT
DIC	Orobanchaceae	*	Parentucellia viscosa	Sticky Bartsia	Y			Herb	A					X		7090	PARVIS
DIC	Phyllanthaceae		Phyllanthus calycinus	Phyllanthus	Y		WA	Herb	P		X		X			4675	PHYCAL
DIC	Phyllanthaceae		Poranthera microphylla	Poranthera	Y		WA	Herb	A		X		X			4691	PORMIC
DIC	Pittosporaceae		Billardiera fraseri	Fraser's Billardiera	Y		WA	Shrub	P				X			25788	BILFRA
DIC	Pittosporaceae		Marianthus sp.		N		WA	Shrub	P				X			-20599	MARSP.
DIC	Portulacaceae		Calandrinia corrigioloides	Strap Purslane	Y		AUST	Herb	A		X					2848	CALCOR
DIC	Portulacaceae		Calandrinia granulifera	Pygmy Purslane	Y		AUST	Herb	A				X			2854	CALGRA
DIC	Primulaceae	*	Lysimachia arvensis	Pimpernel	Y			Herb	A			X		X		36375	LYSARV
DIC	Proteaceae		Adenanthos cygnorum	Woollybush	Y		WA	Shrub	P		X		X			1775	ADECYG
DIC	Proteaceae		Adenanthos meisneri	Meisner's Jugflower	Y		WA	Shrub	P		X					1790	ADEMEI
DIC	Proteaceae		Banksia attenuata	Candle Banksia	Y		WA	Tree	P		X					1800	BANATT
DIC	Proteaceae		Banksia bipinnatifida		Y		WA	Shrub	P				X			32677	BANBIP
DIC	Proteaceae		Banksia dallanneyi	Couch Honeypot	Y		WA	Shrub	P				X	X		32576	BANDAL
DIC	Proteaceae		Banksia grandis	Bull Banksia	Y		WA	Tree	P		X					1819	BANGRA
DIC	Proteaceae		Banksia ilicifolia	Hollyleaf Banksia	Y		WA	Tree	P		X					1822	BANILI
DIC	Proteaceae		Banksia menziesii	Firewood Banksia	Y		WA	Tree	P		X					1834	BANMEN
DIC	Proteaceae		Conospermum crassinervium	Summer Smokebush	Y		WA	Shrub	P		X					1864	CONCRA
DIC	Proteaceae		Conospermum stoechadis	Common Smokebush	Y		WA	Shrub	P		X		X	X	X	1882	CONSTO
DIC	Proteaceae		Grevillea bipinnatifida subsp. bipinnatifida	Fuchsia Grevillea	Y		WA	Shrub	P					X		19628	GREBIPBIP
DIC	Proteaceae		Grevillea pilulifera subsp. occidentalis		Y		WA	Shrub	P				X			-21468	GREPILOCC
DIC	Proteaceae		Hakea erinacea	Hedgehog Hakea	Y		WA	Shrub	P				X			2158	HAKERI
DIC	Proteaceae		Hakea lissocarpha	Honeybush	Y		WA	Shrub	P				X			2175	HAKLIS
DIC	Proteaceae		Hakea prostrata	Harsh Hakea	Y		WA	Shrub	P		X					2197	HAKPRO
DIC	Proteaceae		Hakea ruscifolia	Candle Hakea	Y		WA	Shrub	P		X					2203	HAKRUS
DIC	Proteaceae		Hakea stenocarpa	Narrow-fruited Hakea	Y		WA	Shrub	P				X			2206	HAKSTE
DIC	Proteaceae		Hakea trifurcata	Two-leaf Hakea	Y		WA	Shrub	P				X			2214	HAKTRI
DIC	Proteaceae		Hakea varia	Variable-leaved Hakea	Y		WA	Shrub	P					X		2216	HAKVAR
DIC	Proteaceae		Isopogon dubius	Pincushion Coneflower	Y		WA	Shrub	P				X			2229	ISODUB
DIC	Proteaceae		Persoonia angustiflora	Snottygobble	Y		WA	Shrub	P				X			2255	PERANG
DIC	Proteaceae		Persoonia saccata	Snottygobble	Y		WA	Shrub	P		X					2273	PERSAC
DIC	Proteaceae		Petrophile linearis	Pixie Mops	Y		WA	Shrub	P		X		X			2299	PETLIN

APPENDIX 3 TABLE 1 Floristics of Reserves and Bushland areas on the Dandaragan Plateau (System 6) part 1: Floristics of Barracca Nature Reserve

CODE	FAMILY	WD	PLANT_NAME	COMMON_NAME	CURRENT	CODE	ENDEMIC	FORM	LIFE_FORM	AQUATIC	BW	D	JW	WW	Wet	NAME_ID	SPECIES_CODE
DIC	Proteaceae		Petrophile seminuda	Petrophile	Y		WA	Shrub	P					X	X	2308	PETSEM
DIC	Proteaceae		Petrophile squamata	Petrophile	Y		WA	Shrub	P				X			2311	PETSQU
DIC	Proteaceae		Petrophile striata	Petrophile	Y		WA	Shrub	P		X		X			2312	PETSTR
DIC	Proteaceae		Stirlingia latifolia	Blueboy	Y		WA	Shrub	P		X		X			2316	STILAT
DIC	Proteaceae		Synaphea petiolaris	Synaphea	Y		WA	Shrub	P					X		2324	SYNPET
DIC	Proteaceae		Synaphea spinulosa	Synaphea	Y		WA	Shrub	P		X		X	X		2329	SYNSPI
DIC	Rhamnaceae		Cryptandra sp.		Y			Shrub	P		X					-20920	CRYSP.
DIC	Rubiaceae		Opercularia vaginata	Opercularia	Y		WA	Shrub	P				X	X		18255	OPEVAG
DIC	Rutaceae		Boronia ramosa	Blue Boronia	Y		WA	Shrub	P				X			4438	BORRAM
DIC	Rutaceae		Boronia ramosa subsp. anethifolia	Blue Boronia	Y		WA	Shrub	P		X		X			11381	BORRAMANE
DIC	Rutaceae		Philotheca spicata	Salt and Pepper	Y		AUST	Shrub	P		X		X		X	18529	PHISPI
DIC	Santalaceae		Leptomeria cunninghamii	Currant Bush	Y		AUST	Shrub	P-PAR		X					2342	LEPCUN
DIC	Stylidiaceae		Levenhookia pusilla	Midget Stylewort	Y		AUST	Herb	A					X		7676	LEVSP.
DIC	Stylidiaceae		Levenhookia stipitata	Common Stylewort	Y		WA	Herb	A				X			7677	LEVSTI
DIC	Stylidiaceae		Stylidium ?juncum	Reed Triggerplant	Y		WA	Herb	P		X					-21467	STY?JU
DIC	Stylidiaceae		Stylidium araeophyllum MS	Aerial Pink Fountain Triggerplant	Y		WA	Herb	P				X			25831	STYARA
DIC	Stylidiaceae		Stylidium brunonianum	Pink Fountain Triggerplant	Y		WA	Herb	P						X	7693	STYBRU
DIC	Stylidiaceae		Stylidium bulbiferum	Circus Triggerplant	Y		WA	Herb	P				X			7694	STYBUL
DIC	Stylidiaceae		Stylidium calcaratum	Book Triggerplant	Y		AUST	Herb	A		X				X	7696	STYCAL
DIC	Stylidiaceae		Stylidium ciliatum	Golden Triggerplant	Y		WA	Herb	P				X		X	7702	STYCIL
DIC	Stylidiaceae		Stylidium dichotomum	Pins-and-needles	Y		WA	Herb	P					X	X	7713	STYDIC
DIC	Stylidiaceae		Stylidium diuroides subsp. diuroides	Donkey Triggerplant	Y		WA	Herb	P		X		X			11808	STYDIUDIU
DIC	Stylidiaceae		Stylidium divaricatum	Daddy-long-legs	Y		WA	Herb	P		X					7717	STYDIV
DIC	Stylidiaceae		Stylidium inundatum	Hundreds-and-thousands	Y		AUST	Herb	A	AQD					X	7742	STYINU
DIC	Stylidiaceae		Stylidium neurophyllum MS	Pink Triggerplant	Y		WA	Herb	P		X		X			25829	STYNEU
DIC	Stylidiaceae		Stylidium obtusatum	Pinafore Triggerplant	Y		WA	Herb	P						X	7768	STYOBT
DIC	Stylidiaceae		Stylidium petiolare	Horn Triggerplant	Y		WA	Herb	P						X	7773	STYPET
DIC	Stylidiaceae		Stylidium piliferum	Common Butterfly Triggerplant	Y		WA	Herb	P		X		X			7774	STYPIL
DIC	Stylidiaceae		Stylidium pulchellum	Thumbelina Triggerplant	Y		WA	Herb	P					X	X	7782	STYPUL
DIC	Stylidiaceae		Stylidium repens	Matted Triggerplant	Y		WA	Herb	P		X					7785	STYREP
DIC	Stylidiaceae		Stylidium roseoalatum	Pink-wing Triggerplant	Y		WA	Herb	A	AQD					X	7790	STYROS
DIC	Stylidiaceae		Stylidium schoenoides	Cow-kicks	Y		WA	Herb	P		X		X			7798	STYSCH
DIC	Stylidiaceae		Stylidium sp.		N			Herb	P				X			-20525	STYSP.

APPENDIX 3 TABLE 1 Floristics of Reserves and Bushland areas on the Dandaragan Plateau (System 6) part 1: Floristics of Barracca Nature Reserve

CODE	FAMILY	WD	PLANT_NAME	COMMON_NAME	CURRENT	CODE	ENDEMIC	_FORM	LIFE_FORM	AQUATIC	BW	D	JW	WW	Wet	NAME_ID	SPECIES_CODE
DIC	Stylidiaceae		Stylidium striatum	Fan-leaved Triggerplant	Y	4	WA	Herb	P				X			7803	STYSTR
DIC	Stylidiaceae		Stylidium utricularioides	Pink Fan Triggerplant	Y		WA	Herb	A	AQD					X	7806	STYUTR
DIC	Thymelaeaceae		Pimelea imbricata		Y		AUST	Shrub	P				X			5251	PIMIMB
DIC	Thymelaeaceae		Pimelea suaveolens	Scented Banjine	Y		WA	Shrub	P				X			5266	PIMSUA



APPENDIX 3 TABLE 2 Floristics of Reserves and Bushland areas on the Dandaragan Plateau (System 6) Part 1: Floristics of Barracca Nature Reserve

SUPRA_CODE	FAMILY	WD	PLANT_NAME	COMMON_NAME	IS_CURRENT	CONSV_CODE	ENDEMIC	GROWTH_FORM	LIFE_FORM	LIFE_FORM_AQUATIC	QUADRAT										NAME_ID	SPECIES_CODE		
											BARR01	BARR02	BARR03	BARR04	BARR05	BARR06	BARR07	BARR08	BARR09	BARR10				
FER	Selaginellaceae		Selaginella gracillima	Tiny Clubmoss	Y		>AUST	Herb	A	AQD												6	SELGRA	
MON	Anarthriaceae		Lyginia barbata	Lyginia	Y		WA	Sedge	P				X									1097	LYGBAR	
MON	Anarthriaceae		Lyginia imberbis	Lyginia	Y		WA	Sedge	P													18049	LYGIMB	
MON	Asparagaceae		Arthropodium preissii	Swamp Lily	N		WA	Herb	PAB			X	X		X	X						8787	ARTPRE	
MON	Asparagaceae		Chamaescilla corymbosa	Blue Squill	Y		AUST	Herb	PAB			X	X									1280	CHACOR	
MON	Asparagaceae		Chamaescilla sp.		N			Herb	PAB														-20587	CHASP.
MON	Asparagaceae		Lomandra caespitosa	Tufted Lomandra	Y		WA	Herb	P			X	X		X		X	X					1223	LOMCAE
MON	Asparagaceae		Lomandra hermaphrodita	Lomandra	Y		WA	Herb	P			X	X			X		X	X				1228	LOMHER
MON	Asparagaceae		Lomandra integra	Lomandra	Y		WA	Herb	P			X											1229	LOMINT
MON	Asparagaceae		Lomandra micrantha	Lomandra	Y		AUST	Herb	P														1232	LOMMIC
MON	Asparagaceae		Lomandra nigricans	Lomandra	Y		WA	Herb	P			X											1234	LOMNIG
MON	Asparagaceae		Lomandra preissii	Preiss's Lomandra	Y		WA	Herb	P			X	X										1239	LOMPRE
MON	Asparagaceae		Lomandra sericea	Silky Lomandra	Y		WA	Herb	P							X							1243	LOMSER
MON	Asparagaceae		Lomandra sp.		N			Herb	P			X									X		-20380	LOMSP.
MON	Asparagaceae		Lomandra suaveolens	Lomandra	Y		WA	Herb	P			X	X										1246	LOMSUA
MON	Asparagaceae		Sowerbaea laxiflora	Purple Tassels	Y		WA	Herb	PAB		X		X	X									1312	SOWLAX
MON	Asparagaceae		Thysanotus gracilis	Fringed Lily	Y		WA	Herb	PAA/A			X											1335	THYGRA
MON	Asparagaceae		Thysanotus manglesianus	Twining Fringed Lily	Y		WA	Herb	PAB		X		X		X						X		1338	THYMAN
MON	Asparagaceae		Thysanotus sparteus	Fringed Lily	Y		WA	Herb	P				X										1351	THYSPA
MON	Boryaceae		Borya scirpoidea	Granite Pincushions	Y		WA	Herb	P			X	X			X							1272	BORSCI
MON	Boryaceae		Borya sphaerocephala	Swamp Pincushions	Y		WA	Herb	P		X												1273	BORSPH
MON	Centrolepidaceae		Centrolepis aristata	Pointed Centrolepis	Y		AUST	Sedge	A		X	X	X			X	X						1121	CENARI
MON	Centrolepidaceae		Centrolepis polygyna	Wiry Centrolepis	Y		AUST	Sedge	A				X			X	X						1134	CENPOL
MON	Colchicaceae		Burchardia bairdiae	Baird's Kara	Y		WA	Herb	PAB			X								X			1383	BURBAI
MON	Colchicaceae		Burchardia congesta	Kara	Y		WA	Herb	PAB				X	X			X			X			12770	BURCON
MON	Colchicaceae		Burchardia multiflora	Kara	Y		WA	Herb	PAB			X				X							1385	BURMUL
MON	Colchicaceae		Wurmbea dioica subsp. alba	Early Nancy	Y		AUST	Herb	PAB						X	X							12072	WURDIOALB
MON	Cyperaceae		Caustis dioica	Caustis	Y		WA	Sedge	P		X					X							760	CAUDIO
MON	Cyperaceae		Cyathochaeta avenacea	Cyathochaeta	Y		WA	Sedge	P			X											768	CYAAVE
MON	Cyperaceae	*	Cyperus tenellus	Tiny Flat Sedge	Y			Sedge	P						X								815	CYPTEN
MON	Cyperaceae		Lepidosperma costale	Lepidosperma	Y		WA	Sedge	P		X				X							X	930	LEPCOS
MON	Cyperaceae		Lepidosperma longitudinale	Swamp Swordsedge	Y		AUST	Sedge	P				X										937	LEPLON
MON	Cyperaceae		Lepidosperma sp.		N			Sedge	P				X										-20419	LEPSP.
MON	Cyperaceae		Lepidosperma squamatum	Common Lepidosperma	Y		WA	Sedge	P				X	X	X	X		X	X				945	LEPSQU
MON	Cyperaceae		Lepidosperma viscidum	Sticky Swordsedge	Y		WA	Sedge	P			X											951	LEPVIS
MON	Cyperaceae		Mesomelaena pseudostygia	Semaphore Sedge	Y		WA	Sedge	P											X			955	MESPSE
MON	Cyperaceae		Mesomelaena tetragona	Large Semaphore Sedge	Y		WA	Sedge	P			X	X										957	MESTET
MON	Cyperaceae		Schoenus caespitiis	Schoenus	Y		WA	Sedge	P										X				979	SCHCAE
MON	Cyperaceae		Schoenus plumosus	Schoenus	Y		WA	Sedge	A														17614	SCHPLU
MON	Cyperaceae		Schoenus sculptus	Schoenus	Y		AUST	Sedge	A									X					1013	SCHSCU
MON	Cyperaceae		Schoenus sp.		Y			Sedge								X							-20378	SCHSP.
MON	Cyperaceae		Schoenus subflavus	Schoenus	Y		WA	Sedge	P													X	1019	SCHSUB
MON	Cyperaceae		Tetaria octandra	Tetaria	Y		WA	Sedge	P			X	X			X							1036	TETOCT
MON	Dasyopogonaceae		Calectasia narragara	Blue Tinsel Lily	Y		WA	Herb	P			X	X										19309	CALNAR
MON	Dasyopogonaceae		Dasyopogon bromeliifolius	Pineapple Bush	Y		WA	Herb	P			X					X				X		1218	DASBRO
MON	Haemodoraceae		Anigozanthos bicolor	Little Kangaroo Paw	Y		WA	Herb	PAB		X												1406	ANIBIC
MON	Haemodoraceae		Anigozanthos humilis	Catspaw	Y		WA	Herb	PAB			X											1409	ANIHUM
MON	Haemodoraceae		Biancoa canescens	Red Bugle	Y		WA	Herb	P													X	1417	BLACAN
MON	Haemodoraceae		Conostylis aculeata ssp. bracteata FPR	Prickly Conostylis	N		WA	Herb	P		X												-993	CONACUBR









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DIC	Stylidiaceae	Stylidium striatum	Fan-leaved Triggerplant	Y	4	WA	Herb	P													X										7803	STYSTR
DIC	Stylidiaceae	Stylidium utricularioides	Pink Fan Triggerplant	Y		WA	Herb	A	AQD					X																	7806	STYUTR