



Flora and Vegetation Study Pardoo Irrigation Project

Pardoo Beef Corporation Pty Ltd

P07 – J21

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EXECUTIVE SUMMARY

EnviroWorks Consulting (EnviroWorks) was commissioned by Pardoo Beef Corporation Pty Ltd (PBC) to undertake a Flora and Vegetation Study at Pardoo Cattle Station. Pardoo Station is located north of the Great Northern Highway, approximately 100 kilometres (km) east-north-east of Port Hedland and 365 km south west of Broome, Western Australia (Figure 1).

This report focuses on the Pardoo Irrigation Project Stages 1, 2 and 3 irrigation areas and surrounding areas, located approximately 40 km north east of the Station homestead (Figure 2). The Stage 1, 2 and 3 pivot irrigation areas have already been approved and developed, however this report has been commissioned due to a need to clear small easements which will be developed to provide access to the pastoral lease. This report presents the results of all EnviroWorks flora and vegetation assessments that have been conducted for this area.

The first field survey was undertaken from 11th to 21st July 2016 and involved a Detailed Survey for the establishment of floristic quadrats and traversals of the Stage 2 and 3 study areas during which plant specimens were collected for later identification. Field studies focused on determining the type of plant communities present, compilation of comprehensive plant species lists, assessment of Threatened and Priority flora and a description of fauna habitat. During traversal, particular attention was paid to determining the extent of Rare and Priority species and, if found, the status of any populations of these species. A total of 176 floristic quadrats (each 50 m x 50 m or 2500 m²) were established. Within each quadrat all plant species were identified and their cover determined. Plant specimens were identified and verified using the resources of the State Herbarium and on-line State Herbarium database 'FloraBase'. Mapping of native vegetation was based on aerial photograph interpretation with the field studies providing details of community floristics and structure.

The second field survey was undertaken from 25th – 28th August 2016 and included priority flora searches within the Stage 2 and 3 study areas. Traverses were conducted of specific sections of the study areas where species of conservation significance were known to occur based on the July 2016 survey. These traverses were in a grid pattern with survey personnel walking approximately 40 m apart. GPS coordinates, plant counts (estimated where large numbers were found) and photographs were recorded of conservation significant flora. Flagging tape was strung up on surrounding vegetation to indicate the location of priority flora. The survey also included wider searches as necessary to assess the regional population of the priority flora species *Bonamia oblongifolia* (Priority 3).

The third field survey occurred from 21st – 23rd September 2017 and included re-examination of the Stage 3 area, as well as a Reconnaissance Survey and structural vegetation mapping of adjacent areas to the North (including the Ramsar wetland). The survey involved traversal of the study area during which plant specimens were collected for later identification. During traversal, particular attention was paid to determining the extent of Rare and Priority species and, if found, the status of any populations of these species. Plant specimens were identified and verified using the resources of the State Herbarium and on-line State Herbarium database 'FloraBase'.

The fourth survey occurred over 9th-25th May 2018. It was a Detailed Survey for the establishment of floristic quadrats and traversals south of the Great Northern Hwy as well as a Reconnaissance Survey and structural vegetation mapping of adjacent areas to the North (including the Ramsar wetland). Field studies focused on determining the type of plant communities present, compilation of comprehensive plant species lists, assessment of threatened and Priority flora and a description of fauna habitat. During traversal, particular attention was paid to determining the extent of Declared Rare and Priority species and, if found, the status of any populations of these species. A total of 48 floristic quadrats (each 50 m x 50 m or 2500 m²) and 191 relevés were established. Within each plot all plant species were identified and their cover determined. Plant specimens were identified and verified using the resources of the State Herbarium and on-line State Herbarium database 'FloraBase'. Mapping of native vegetation was based on aerial photograph interpretation with the field studies providing details of community floristics and structure.

Further desktop studies were conducted in March and October 2020, compiling the results of all of the above surveys and undertaking desktop vegetation mapping of two smaller areas proposed for re-zoning (778 ha) and an area surrounding three access road easement developments (11.4 ha). These areas had not been subject to previous field surveys as described above (Figure 2).

Eight native vegetation community types were identified across the survey areas by multivariate floristic analysis:

- Acacia Shrubland 1 (Pindan) consists of open low woodland over an *Acacia* sp. scrub/low scrub over grassland and is mostly in good ecological condition). *Bonamia oblongifolia* (Priority 3) and *Tribulopsis marliesiae* (Priority 3) are present.
- Acacia Shrubland 2 (Pindan) is open low woodland over an *Acacia* sp. scrub/low scrub over grassland and is mostly in poor-good ecological condition. Approximately 170 ha of this community was burnt in 2014-2015. *Bonamia oblongifolia* (Priority 3) *Tribulopsis marliesiae* (Priority 3) are present.
- Pindan Open Woodland/Shrubland 1 covers flats and plains higher in the landscape than Acacia Shrubland A. It consists of low open woodland over a low mixed-species shrubland in good to very good ecological condition. *Tribulopsis marliesiae* (Priority 3) and *Seringia katatona* (Priority 3) are present.
- Pindan Open Woodland/Shrubland 2 covers rises and ridges higher in the landscape than Acacia Shrubland B. It consists of low open woodland over a low mixed-species shrubland in good to very good ecological condition. *Tribulopsis marliesiae* (Priority 3) is present.
- Acacia-Melaleuca Shrubland 1 occurs on brown sands below Acacia Shrubland 2. It consists of low open woodland over a low mixed-species shrubland in poor to good ecological condition. The main disturbance is grazing.
- Acacia-Melaleuca Shrubland 2 occurs on brown sands and white clays below Acacia/Melaleuca Shrubland 1. It consists of low open woodland over a low mixed-species shrubland in poor to good ecological condition. The main disturbance is grazing.
- Limestone outcrops are present in a small areas north of the Great Northern Hwy. These outcrops are heavily grazed and are in degraded ecological condition.
- Completely degraded areas were areas devoid of vegetation mainly coinciding with cleared tracks and stock watering points.

In addition, rocky outcrops occur within the Acacia Shrublands 1 and 2. These outcrops occur on exposed conglomerate. The outcrops support plant species shared with the surrounding floristic community as well as a number of species which are confined to rocky areas. The outcrops are small in areal extent (mostly < 0.5 ha). The plant communities present are mostly in poor to good ecological condition. Weed invasion is the main disturbance.

Seven structural plant communities were mapped across the study areas as follows. Structural communities were broadly consistent with the floristic communities:

- Pindan shrublands occur on red or red-brown sands dominated by *Acacia* species and are located at a higher elevation in the landscape than the adjacent coastal plain vegetation types. These shrublands occur adjacent to the irrigation project areas (and were the pre-development vegetation type prior to the development of the pivots).
- Pindan open woodlands/shrublands occur in the south east and south west of the study area. This community covers areas higher in the landscape than Acacia Shrublands and consist of low open woodland over a low mixed-species shrubland.
- Coastal Plain shrublands (and seasonally wet thickets) occur predominantly in the coastal plain and Ramsar section of the study area on seasonally wet grey to white clayey silty soil and brown sandy loam, at a lower elevation in the landscape compared with the Pindan shrublands. There is also a

pocket of this vegetation type in the far south east of the study area, coinciding with a lower elevation area.

- Coastal Plain grasslands and low shrublands occur predominantly in the coastal plain and Ramsar section of the study area on seasonally wet grey to white clayey silty soil, at a lower elevation in the landscape compared with the Pindan shrublands. These grasslands form a mosaic with the coastal plain thickets and shrublands described above.
- Salt pans occur in minor depressions in the landscape within the coastal plain and Ramsar section of the study area at slightly lower elevation than surrounding areas on grey to white clay. These depressions naturally collect rainfall from surrounding areas after rainfall and evaporation results in the build-up of salts over time. They consist of bare salt pan areas and associated low samphire, herblands and shrublands.
- Low limestone ridges / outcrops occur in localised areas within the coastal plain and Ramsar section of the study area with limestone cap rock visible at the surface. These ridges are sparsely vegetated and occur with shallow red or brown sands.
- Completely degraded areas were areas devoid of vegetation mainly coinciding with cleared tracks and stock watering points.

No Threatened or Priority Ecological Communities (TEC's/PEC's) were identified through the Department of Biodiversity, Conservation and Attractions (DBCAs) database search or through field visits.

The native plant communities present within the study area range from degraded to very good in ecological condition. Weed invasion and physical disturbance associated with cattle station operations are the main disturbances.

Within the study areas, the vegetation types surveyed are not classified as groundwater dependent. However, some of the Acacia-Melaleuca Shrublands have some species which may access saturated surface soils or the shallow groundwater ephemerally.

156 native plant species representing 101 genera and 39 families were recorded within the Pardoo study areas. The most common plant families included Fabaceae, Malvaceae and Amaranthaceae. Species of *Acacia* and *Melaleuca* dominate the shrub flora while Amaranthaceae, Malvaceae, Poaceae and Fabaceae species are most common within the lower strata. Four weed species were recorded. *Aerva javanica* and *Cenchrus ciliaris* are common weeds associated with grazing. Three species of conservation significance were detected within the study areas – *Bonamia oblongifolia* (Priority 3), *Tribulopsis marliesiae* (Priority 3) and *Seringia katatona* (Priority 3) as described below:

- *Bonamia oblongifolia* (Priority 3) was identified as occurring across the study areas to the north and also further afield. Populations of the species were assessed in three areas during field studies at Wallal Downs where it occurred more extensively (EnviroWorks Consulting, 2016b) and at Anna Plains where it was localised (EnviroWorks Consulting, 2017a). The total regional population size of *Bonamia oblongifolia* based on regional surveys and likely density extrapolation in similar land systems, was estimated to be approximately 1,179,006 plants (EnviroWorks Consulting, 2017b).
- *Tribulopsis marliesiae* (Priority 3) is extensive within the Open Woodland and Acacia Shrubland 1 floristic communities. The regional population of this species is likely to be extensive given the large number of records encountered to date and its ubiquitous habitat type. Extrapolation of the likely density of this species (based on records to date) within areas surveyed estimates the local population of this species to be approximately 2,411,900 plants. It is highly likely that *Tribulopsis marliesiae* occurs more widely within the region based on its Pindan habitat type which is ubiquitous within the region. On this basis, it is estimated that this clearing is likely to represent less than 1% of the regional population of the species.
- *Seringia katatona* (Priority 3) was identified in two locations south of the Great Northern Hwy. No clearing of recorded locations of this species is predicted to occur. It is highly likely that *Seringia katatona* occurs more widely on Pardoo Station and within the region based its Pindan habitat type which is ubiquitous within the region.

1 INTRODUCTION

EnviroWorks Consulting (EnviroWorks) was commissioned by Pardoo Beef Corporation Pty Ltd (PBC) to undertake a Flora and Vegetation Study at Pardoo Cattle Station.

Pardoo Station is located north of the Great Northern Highway, approximately 100 kilometres (km) east-north-east of Port Hedland and 365 km south west of Broome, Western Australia (Figure 1).

This report focuses on the Pardoo Irrigation Project Stages 1, 2 and 3 irrigation areas and surrounding areas, located approximately 40 km north east of the Station homestead (Figure 2). The Stage 1, 2 and 3 pivot irrigation areas have already been approved and developed, however this report has been commissioned due to a need to clear small easements which will be developed to provide access to the pastoral lease. This report presents the results of all EnviroWorks flora and vegetation assessments that have been conducted for this area.

The objectives of this study were to:

- Develop an inventory of the flora occurring within the survey areas and to determine the presence of any flora of conservation significance.
- Undertake an assessment of vegetation communities present, their condition and potential conservation significance.
- Document the occurrence of Priority flora and where relevant assess regional populations.

2 METHODS

Potentially significant species and associations of flora expected to occur within the study areas were identified and compiled by searching Department of Biodiversity, Conservation and Attractions (DBCA) databases including:

- The Threatened (Declared Rare) and Priority Flora database (Ref: 27-0817FL).
- The Threatened and Priority Fauna database (Ref: 2017/000390 #5501).
- The Western Australian Herbarium Specimen database (Ref: 27-0817FL).
- The Threatened and Priority Flora List (Ref: 27-0817FL).
- The Threatened and Priority Ecological Community Database (Ref: 06-0917DBCA).

The study areas are shown in Figure 2. They are located approximately 40 km northeast of the Station homestead, and include the Stage 1, 2 and 3 irrigation projects (which are now approved and have already been developed).

This study has been conducted in accordance with *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (Environmental Protection Authority, 2016).

The first field survey was undertaken from 11th to 21st July 2016 and involved a Detailed Survey for the establishment of floristic quadrats and traversals of the Stage 2 and 3 study areas during which plant specimens were collected for later identification. Field studies focused on determining the type of plant communities present, compilation of comprehensive plant species lists, assessment of threatened and Priority flora and a description of fauna habitat. During traversal, particular attention was paid to determining the extent of Declared Rare and Priority species and, if found, the status of any populations of these species. A total of 40 floristic quadrats (each 50 m x 50 m or 2500 m²) and 136 relevés were established. Within each plot all plant species were identified and their cover determined. Plant specimens were identified and verified using the resources of the State Herbarium and on-line State Herbarium database 'FloraBase'. Mapping of native vegetation was based on aerial photograph interpretation with the field studies providing details of community floristics and structure.

The second field survey was undertaken from 25th – 28th August 2016 and included priority flora searches within the Stage 2 and 3 study areas. Traverses were conducted of specific sections of the study areas where species of conservation significance were known to occur based on the July 2016 survey. These traverses were in a grid pattern with survey personnel walking approximately 40 m apart. GPS coordinates, plant counts (estimated where large numbers were found) and photographs were recorded of conservation significant flora. Flagging tape was strung up on surrounding vegetation to indicate the location of Threatened and Priority flora. All plant counts were based on 100 square metre areas and these counts were used to determine population sizes within and outside study areas. Estimates of *Bonamia oblongifolia* population sizes were obtained by extrapolation of counts obtained during foot and car traverses to 200m x 200m (4 ha) grid cells. The survey also included wider searches as necessary to assess the regional population of the priority flora species *Bonamia oblongifolia* (Priority 3).

The third field survey occurred from 21st – 23rd September 2017 and included re-examination of the Stage 3 area, as well as a Reconnaissance Survey and structural vegetation mapping of adjacent areas to the North (including the Ramsar wetland). The survey involved traversal of the study area during which plant specimens were collected for later identification. During traversal, particular attention was paid to determining the extent of Rare and Priority species and, if found, the status of any populations of these species. Plant specimens were identified and verified using the resources of the State Herbarium and on-line State Herbarium database 'FloraBase'.

The fourth survey occurred over 9th - 25th May 2018. It was a Detailed Survey for the establishment of floristic quadrats and traversals south of the Great Northern Hwy as well as a Reconnaissance Survey and structural

vegetation mapping of adjacent areas to the North (including the Ramsar wetland). Field studies focused on determining the type of plant communities present, compilation of comprehensive plant species lists, assessment of threatened and Priority flora and a description of fauna habitat. During traversal, particular attention was paid to determining the extent of Declared Rare and Priority species and, if found, the status of any populations of these species. A total of 48 floristic quadrats (each 50 m x 50 m or 2500 m²) and 191 relevés were established. Within each plot all plant species were identified and their cover determined. Plant specimens were identified and verified using the resources of the State Herbarium and on-line State Herbarium database 'FloraBase'. Mapping of native vegetation was based on aerial photograph interpretation with the field studies providing details of community floristics and structure.

The 2016 survey timing was selected to occur after significant rainfall, which corresponds with major flowering times in the region (with the majority of species flowering times being rainfall dependent). The July and August 2016 surveys corresponded with a preceding major rainfall event which occurred in June 2016 and enabled the collection of a large number of priority flora records of species flowering due to the preceding rainfall.

The 2017 survey timing was conducted as a supplementary survey to gather further information and as a result was carried out in the post-wet season period (September 2017).

The 2018 survey timing was selected to occur after significant rainfall, which corresponds with major flowering times in the in region (with the majority of species flowering times being rainfall dependent). The May 2018 survey occurred after significant rainfall which occurred in March 2018 and enabled the collection of a priority flora records of species flowering due to the preceding rainfall. "

Two desktop studies were conducted in 2020. The first undertaken in March 2020 involved desktop vegetation mapping of two smaller areas proposed for re-zoning, which had not been subject to previous field surveys as described above (Figure 2). The second study in October 2020 involved desktop vegetation mapping of areas surrounding three access road easement developments close to Great Northern Highway (Figure 2).

The areas surveyed are as follows (Figure 2):

- Detailed survey area – 6,880 ha
- Reconnaissance survey area – 4,528 ha
- Desktop assessment area – 778 ha
- Easements and surrounding areas – 11.4 ha
- Total area surveyed – 12,199 ha

Floristic community types are assemblages as defined by Gibson *et al.*(1994). The presence or absence of individual taxa in standard areas (quadrats or relevés) is used to define floristic groupings (or community types) based on shared species.

Vegetation was mapped at the community level and is based on floristics, structure and land systems. Quadrats were classified by creating a dendrogram based on Sorensen's index of similarity (equivalent to Bray-Curtis index, with species presence-absence data only). The dendrogram was created using the Group Average Method ('UPGMA'), implemented in Primer v6(Clarke & Gorley, 2006; Legendre & Legendre, 2012).

Ecological condition was assessed according to Environmental Protection Authority (2016). The vegetation condition rating scale used is included as Appendix A. Plant structural formation definitions follow Muir (1977) as outlined in Appendix B.

All maps and data are in GDA94 Zone 51 coordinates (except where stated otherwise).

3 ASSESSMENT OF CONSERVATION SIGNIFICANCE

The conservation status of both flora and fauna species is assessed under Commonwealth and State legislation such as the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *WA Wildlife Conservation Act 1950* (WC Act). The significance levels for species used in the EPBC Act are those recommended by the International Union for the Conservation of Nature and Natural Resources (IUCN). The WC Act uses a set of Schedules but also classifies species using IUCN categories.

In Western Australia, the Department of Biodiversity, Conservation and Attractions (DBCA) has also produced a supplementary list of Priority flora and fauna, being species that are not considered Specially Protected under the WC Act, but for which there is cause for concern.

The following levels of conservation significance are recognised in this report (summarised in Table 1).

International: ICUN Classifications

- Extinct (EX): no reasonable doubt that the last individual has died
- Extinct in the Wild (EW): known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range
- Critically Endangered (CR): considered to be facing an extremely high risk of extinction in the wild.
- Endangered (EN): considered to be facing a very high risk of extinction in the wild.
- Vulnerable (VU): considered to be facing a high risk of extinction in the wild.
- Near Threatened (NT): does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying (or is likely to qualify) for a threatened category in the near future.
- Least Concern (LC): does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.
- Data Deficient (DD): inadequate information to make an assessment of its risk of extinction.
- Not Evaluated (NE): has not yet been evaluated.

National: EPBC Act Classifications (as described above)

- Extinct
- Extinct in the wild
- Critically Endangered
- Endangered
- Vulnerable
- Conservation dependent

These categories are determined by the total distribution of the species, and not just their distribution within WA.

State: WC Act Classification

Threatened (T) species are published as Specially Protected under the WC Act and are listed under the *Wildlife Conservation (Rare Flora) Notice 2016* and the *Wildlife Conservation (Specially Protected Fauna) Notice 2016a*s:

- **Schedule 1:** considered rare or likely to become extinct, as **critically endangered (CR)**
- **Schedule 2:** considered rare or likely to become extinct, as **endangered (EN)**
- **Schedule 3:** considered rare or likely to become extinct, as **vulnerable (VU)**
- **Schedule 4:** presumed to be **extinct (EX)**

The *Wildlife Conservation (Specially Protected Fauna) Notice 2016* contains an additional three Schedules of WC Act listed Specially Protected fauna:

- **Schedule 5:** Migratory birds protected under an international agreement(**IA**)
- **Schedule 6:** special conservation need as conservation dependent fauna(**CD**)
- **Schedule 7:** Other specially protected fauna(**OS**)

State: DBCA Priority Species

The DBCA maintain a list of Priority species which are of conservation significance but do not meet the criteria for inclusion as Specially Protected Wildlife under the WC Act. Priority species are broken into four DBCA management categories:

- Poorly-known (or inadequately surveyed) species:
 - **Priority One (P1):** Taxa known from few locations (generally <5), with occurrences either small or under immediate threat of habitat destruction/ by other threatening process.
 - **Priority Two (P2):** Taxa known from few locations (generally <5) on conservation managed lands (e.g. national parks, nature reserves) or appear to be under threat from known threatening processes.
 - **Priority Three (P3):** Taxa that do not appear to be under immediate threat and are either known from several locations or from a few locations with large populations / significant areas of suitable habitat and, or
- Rare / Near Threatened / in need of monitoring:
 - **Priority Four (P4):** Taxa that:
 - may become rare if present circumstances change
 - are close to qualifying as Vulnerable (but are not listed as Conservation Dependent)
 - have been removed from the list of Threatened species in the last 5 years (for non-taxonomic reasons).

These categories are determined by the WA distribution of the species (unless part of a contiguous population extending into adjacent States).

Table 1:Categories Used to Define the Conservation Status of Species.

Level	Governing Body, Legislation (if relevant)	Conservation Categories
International	IUCN	Extinct (EX) Extinct in the Wild (EW) Threatened: Critically Endangered (CR) Endangered (EN) Vulnerable (VU) Near Threatened (NT) Least Concern (LC) Data Deficient (DD) Not Evaluated (NE)
National	DoEE, EPBC Act	Extinct Extinct in the Wild Critically Endangered Endangered Vulnerable Conservation Dependent

Level	Governing Body, Legislation (if relevant)	Conservation Categories
State of WA	DBCA, WC Act	Threatened Fauna/DRF (T): Schedule 1 (CR) Schedule 2 (EN) Schedule 3 (VU) Schedule 4 (EX) Schedule 5 (IA) Schedule 6 (CD) Schedule 7 (OS)
State of WA	DBCA supplementary priority list (not listed under legislation)	Priority species: Priority One Priority Two Priority Three Priority Four

4 RESULTS

4.1 REGIONAL CONTEXT

The IBRA7 classification recognises 89 bioregions (Department of the Environment and Energy, n.d.). The study area occurs within the Dampierland bioregion, within the Pindanland subregion (Graham, 2001; May & McKenzie, 2003). The Pindanland subregional area is 5,198,904 ha and is described by the Australian Natural Resources Atlas (ANRA) as follows:

The study area is located within the Pindanland IBRA subregion (Graham, 2001) – Figure 1.

“The Pindanland subregion (DL2) is the coastal, semi-arid, north-western margin of the Canning Basin. The region has a semi-arid, hot, tropical climate with summer rainfall. Quaternary sand plains mantle Jurassic and Mesozoic sandstones and support Pindan vegetation on the plains and hummock grasslands on hills. Specific Plant Communities include:

- *Acacia ancistrocarpa* and/or *Acacia eriopoda* and/or *Acacia monticola* tall shrubland with *Triodia intermedia* and *Triodia pungens* hummock grasses.
- *Grevillea refracta*/ *Hakea lorea* open shrubland with *Triodia pungens* hummock grasses.
- *Triodia pungens* and/or *Triodia schinzii* hummock grassland wooded with low trees and *Acacia* spp. Shrubs.”

Regional vegetation mapping was undertaken by Beard (1981) while Beeston *et al.*(2002) converted the existing paper maps to digital format. They analysed the information with respect to vegetation loss and reported on the current conservation status of community types. This information was last updated in March 2017 (Department of Biodiversity, Conservation and Attractions, 2017a).

The study area coincides with three pre-european vegetation types as described below in Table 2 and mapped in Figure 3. These vegetation units are not considered under threat, with 96% to 100% of their original extents remaining (Table 2).

Table 2: Pre-European Vegetation

Vegetation Association	Description	Original Extent (ha)	Extent (2016) (ha)
Pindan Coastal Plain32	Shrublands, pindan; acacia shrubland with scattered low trees over <i>Plectrachne</i> sp. & <i>Triodia</i> spp.	33,389	33,389 (100%)
Mandora Coastal Plain 117	Hummock grassland, grass steppe, soft Spinifex	919,517	886,006 (96%)
Mandora Coastal Plain 73	Grasslands, short bunch grass savannah, grass; salt water grassland (<i>Sporobolus australasicus</i>)	249,064	249,064 (100%)

The composition of the native species flora within the study area is consistent with the above vegetation associations. Plant communities mapped across the study area are described below.

4.2 TOPOGRAPHY

Topography has been mapped using a digital terrain model available for the region (Geoscience Australia 2010)- Figure 4. This shows that the elevation is higher in the southern parts of the study area and lower in the northern parts of the study area towards the coast. Vegetation patterns *generally* follow topographic patterns in the area.

4.3 FLORISTIC ANALYSIS

Floristic Surveys were carried out over the Stage 2 and 3 irrigation areas and land to the south of these (Figure 2).

Floristic community types are assemblages as defined by Gibson *et al.*(1994). The presence or absence of individual taxa in standard areas (quadrats) is used to define floristic groupings (or community types) based on shared species. A total of 88 floristic quadrats (each 50 m x 50 m or 2500 m²) and 327 releves were established within the native vegetation (Figure 5). Within each quadrat and releve all plant species were identified and their cover determined.

Eight native vegetation community types were identified across the survey areas by multivariate floristic analysis (Figure 6):

- Acacia Shrubland 1 (Pindan) consists of open low woodland over an *Acacia* sp. scrub/low scrub over grassland and is mostly in good ecological condition). *Bonamia oblongifolia* (Priority 3) and *Tribulopsis marliesiae* (Priority 3) are present.
- Acacia Shrubland 2 (Pindan) is open low woodland over an *Acacia* sp. scrub/low scrub over grassland and is mostly in poor-good ecological condition. Approximately 170 ha of this community was burnt in 2014-2015. *Bonamia oblongifolia* (Priority 3) and *Tribulopsis marliesiae* (Priority 3) are present.
- Pindan Open Woodland/Shrubland 1 covers flats and plains higher in the landscape than Acacia Shrubland A. It consists of low open woodland over a low mixed-species shrubland in good to very good ecological condition. *Tribulopsis marliesiae* (Priority 3) and *Seringia katatona* (Priority 3) are present.
- Pindan Open Woodland/Shrubland 2 covers rises and ridges higher in the landscape than Acacia Shrubland B. It consists of low open woodland over a low mixed-species shrubland in good to very good ecological condition. *Tribulopsis marliesiae* (Priority 3) is present.
- Acacia-Melaleuca Shrubland 1 occurs on brown sands below Acacia Shrubland 2. It consists of low open woodland over a low mixed-species shrubland in poor to good ecological condition. The main disturbance is grazing.
- Acacia-Melaleuca Shrubland 2 occurs on brown sands and white clays below Acacia/Melaleuca Shrubland 1. It consists of low open woodland over a low mixed-species shrubland in poor to good ecological condition. The main disturbance is grazing.
- Limestone outcrops are present in a small areas north of the Great Northern Hwy. These outcrops are heavily grazed and are in degraded ecological condition.
- Completely degraded areas were areas devoid of vegetation mainly coinciding with cleared tracks and stock watering points.

In addition, rocky outcrops occur within the Acacia Shrublands 1 and 2. These outcrops occur on exposed conglomerate and are present mainly within the Detailed study area. The outcrops support plant species shared with the surrounding floristic community as well as a number of species which are confined to rocky areas. The outcrops are small in areal extent (mostly < 0.5 ha).

Table 3 below specifies the areas in hectares mapped of each floristic community type and the mapping is presented in Figure 6. Appendix C presents the multivariate analysis dendrogram, Appendix D provides

detailed descriptions, Appendix E lists the coordinates of floristic quadrats while Appendix F tabulates their species lists for floristic analysis.

Table 3: Extent of Floristic Vegetation Communities

Floristic Communities	Area (ha)
Acacia Shrubland 1	3093.0
Acacia Shrubland 2	939.9
Acacia/Melaleuca Shrubland 1	444.8
Acacia/Melaleuca Shrubland 2	303.9
Completely Degraded	807.7
Limestone	17.2
Pindan Open Woodland/Shrubland 1	1447.9
Pindan Open Woodland/Shrubland 2	553.3
Total Area	7607.7

Based on the adjacent known vegetation type the easement study area (11.4 ha) has been mapped as:

- Acacia Shrubland 1 – 8.7 ha
- Completely Degraded – 2.7 ha.

4.4 STRUCTURAL PLANT COMMUNITIES

Reconnaissance Level Surveys were carried out for the area to the north of the Floristic Survey Areas (including the Ramsar wetland) – Figure 2. For consistency, structural mapping of plant communities was also carried out within the area where floristic mapping was also conducted as described above. Structural communities identified within the floristic study area were broadly consistent with the floristic communities.

Seven structural plant communities were mapped across the study areas as follows (Figure 7):

- Pindan shrublands occur on red or red-brown sands dominated by Acacia species and are located at a higher elevation in the landscape than the adjacent coastal plain vegetation types. These shrublands occur adjacent to the irrigation project areas (and were the pre-development vegetation type prior to the development of the pivots).
- Pindan open woodlands/shrublands occur in the south east and south west of the study area. This community covers areas higher in the landscape than Acacia Shrublands and consist of low open woodland over a low mixed-species shrubland.
- Coastal Plain shrublands (and seasonally wet thickets) occur predominantly in the coastal plain and Ramsar section of the study area on seasonally wet grey to white clayey silty soil and brown sandy loam, at a lower elevation in the landscape compared with the Pindan shrublands. There is also a pocket of this vegetation type in the far south east of the study area, coinciding with a lower elevation area.
- Coastal Plain grasslands and low shrublands occur predominantly in the coastal plain and Ramsar section of the study area on seasonally wet grey to white clayey silty soil, at a lower elevation in the landscape compared with the Pindan shrublands. These grasslands form a mosaic with the coastal plain thickets and shrublands described above.
- Salt pans occur in minor depressions in the landscape within the coastal plain and Ramsar section of the study area at slightly lower elevation than surrounding areas on grey to white clay. These depressions naturally collect rainfall from surrounding areas after rainfall and evaporation results in the build-up of salts over time. They consist of bare salt pan areas and associated low samphire, herblands and shrublands/

- Low limestone ridges / outcrops occur in localised areas within the coastal plain and Ramsar section of the study area with limestone cap rock visible at the surface. These ridges are sparsely vegetated and occur with shallow red or brown sands.
- Completely degraded areas were areas devoid of vegetation mainly coinciding with cleared tracks and stock watering points.

These structural communities are mapped in Figure 7 and areas shown below in Table 4. Detailed descriptions of these communities are contained within Appendix G.

Table 4: Extent of Structural Vegetation Communities

Structural Communities	Area (ha)
Coastal Grassland	910.9
Coastal Shrubland	2712.7
Completely Degraded	338.5
Limestone Outcrop	151.3
Pindan Open Woodland	2001.1
Pindan Shrubland	5072.1
Pivot	890.0
Salt Pan	121.8
Total Area	12198.6

4.5 CONSERVATION SIGNIFICANT NATIVE VEGETATION COMMUNITIES

A Threatened or Priority Ecological Community (TEC or PEC) is one that has been endorsed by WA's Environment Minister as being subject to processes that threaten to destroy or significantly modify it across much of its range.

A search of the DBCA TEC/PEC database indicated 3 PECs occur within or near the study area (Table 5, Figure 8).

Table 5: Priority Ecological Community Records in 50 km Buffer DBCA Database Search

Community	Description	Conservation Status
Eighty Mile Land System	Beach foredunes, coastal dunes and sandy plains supporting buffel grass grasslands and soft spinifex grasslands.	Priority Ecological Community (Priority 3)
Lime Land System	Calcareous plains supporting soft and hard spinifex grasslands and melaleuca shrublands.	Priority Ecological Community (Priority 3)
Roebuck Land System	Saline coastal flats with broad plains of salt water couch grasslands, samphire, and bare mud flats.	Priority Ecological Community (Priority 3)

The Department of Primary Industries and Regional Development (DPIRD) surveyed the Pilbara region between 1995 and 1999 and produced a report titled "Rangeland inventory and condition survey of the Pilbara region, Western Australia" (Vreeswyk, Leighton, Payne and Hennig, 2004). As a result of this survey and further refinements over time DPIRD maintain land systems mapping of vegetation and soil associations across the Pilbara. This land system mapping is shown in Figure 9.

Figure 9 shows:

- The Lime Land System as occurring in the south eastern corner of the study area. This part of the study area is outside the proposed Pardoo Irrigation Project and re-zoning area (and is therefore unlikely to be impacted by the project).
- The Roebuck Land System as occurring in the north east corner of the study area. This part of the study area is outside the proposed Pardoo Irrigation Project and re-zoning area (and is therefore unlikely to be impacted by the project).
- The Eighty Mile Land System as occurring immediately north of the Stage 3 Development Envelope. It should be noted that previous floristic mapping (EnviroWorks Consulting, 2017a) showed that the buffer of the PEC overlaps the Stage 3 development, however the occurrence of the PEC itself does not. The vegetation to the north of the pivots is not impacted by the Irrigation Project due to a range of measures such as de-stocking and fencing. The Stage 3 irrigation development (including previous floristic vegetation analysis) was assessed by the EPA and was subsequently approved under Ministerial Statement 1079.

The Nita Land System and Acacia Shrubland 1 vegetation type of the proposed easement clearing is not a TEC or PEC.

4.6 ECOLOGICAL CONDITION

The native plant communities present within the study areas range from completely degraded to very good ecological condition (Environmental Protection Authority, 2016). Figure 10 shows ecological condition mapping whilst Table 6 below provides areas in hectares.

Weed invasion and physical disturbance associated with cattle station operations are the main disturbances.

The easement study area (11.4 ha) has the following condition:

- Poor: 8.7 ha
- Completely degraded: 2.7 ha.

Table 6: Ecological Condition

Condition	Area (ha)
Completely Degraded	1267.0
Degraded	520.4
Poor	1162.0
Good	4741.4
Very Good	4507.7
Total	12198.6

4.7 GROUNDWATER DEPENDENT ECOSYSTEMS

Within the study areas, the vegetation types surveyed are not classified as groundwater dependent. However, some of the Acacia-Melaleuca Shrublands have some species which may access saturated surface soils or the shallow groundwater ephemerally.

4.8 NATIVE FLORA

156 native plant species were recorded at Pardoo, including 101 genera and 39 families (Table 7, see also Appendix I). The most common plant families included Fabaceae, Malvaceae and Amaranthaceae. Species

of *Acacia* dominate the shrub flora while Malvaceae, Amaranthaceae, Poaceae and Fabaceae species are most common within the ground flora.

Table 7: Native Plant Species

Species	Author	Family
<i>Abutilon indicum</i>	(L.) Sweet	Malvaceae
<i>Abutilon lepidum</i>	(F.Muell.) A.S.Mitch.	Malvaceae
<i>Abutilon otocarpum</i>	F.Muell.	Malvaceae
<i>Acacia ampliceps</i>	Maslin	Fabaceae
<i>Acacia ancistrocarpa</i>	Maiden & Blakely	Fabaceae
<i>Acacia coleii</i>	Maslin & L.A.J.Thomson	Fabaceae
<i>Acacia dictyophleba</i>	F.Muell.	Fabaceae
<i>Acacia drepanocarpa subsp. drepanocarpa</i>	F.Muell.	Fabaceae
<i>Acacia eriopoda</i>	Maiden & Blakely	Fabaceae
<i>Acacia hilliana</i>	Maiden	Fabaceae
<i>Acacia monticola</i>	J.M.Black	Fabaceae
<i>Acacia ptychophylla</i>	F.Muell.	Fabaceae
<i>Acacia sericophylla</i>	F.Muell.	Fabaceae
<i>Acacia stellaticeps</i>	Kodala, Tindale & D.Keith	Fabaceae
<i>Acacia tumida var pilbarensis</i>	M.W.McDonald	Fabaceae
<i>Achyranthes aspera</i>	L.	Amaranthaceae
<i>Amaranthus undulatus</i>	R.Br.	Amaranthaceae
<i>Aristida inaequiglumis</i>	Domin	Poaceae
<i>Bauhinia cunninghamii</i>	(Benth.) Benth.	Fabaceae
<i>Bonamia alatisemina</i>	R.W.Johnson	Convolvulaceae
<i>Bonamia erecta</i>	R.W.Johnson	Convolvulaceae
<i>Bonamia linearis</i>	(R.Br.) Hallier f.	Convolvulaceae
<i>Bonamia oblongifolia</i>	Myint	Convolvulaceae
<i>Bonamia rosea</i>	(F.Muell.) Hallier	Convolvulaceae
<i>Calandrinia strophilata</i>	(F.Muell.) Ewart, B.Rees & B.Wood	Portulacaceae
<i>Calytrix carinata</i>	Craven	Myrtaceae
<i>Capparis umbonata</i>	Juss	Capparaceae
<i>Carissa lanceolata</i>	R.Br.	Apocynaceae
<i>Cassytha filiformis</i>	L.	Lauraceae
<i>Cleome uncifera</i>	Kers.	Cleomaceae
<i>Cleome viscosa</i>	L.	Cleomaceae
<i>Clerodendron tomentosum</i>	(Vent.) R.Br.	Lamiaceae
<i>Codonocarpus cotinifolius</i>	(Desf.) F.Muell.	Gyrostemonaceae
<i>Corchorus parviflorus</i>	(Benth.) Domin	Malvaceae
<i>Corchorus sidoides subsp. sidoides</i>	F.Muell.	Malvaceae
<i>Corymbia hammerslayana</i>	K.D.Hill & L.A.S.Johnson,	Myrtaceae
<i>Corymbia zygophylla</i>	(Blakely) K.D.Hill & L.A.S.Johnson,	Myrtaceae
<i>Corynotheca micrantha</i>	(Lindley) J.F. Macbride	Hemerocallidaceae
<i>Cucumis melo</i>	L.	Cucurbitaceae
<i>Cucumis variabilis</i>	P.Sebastian & I.Telford	Cucurbitaceae
<i>Cyanostegia cyanocalyx</i>	(F.Muell.) C.A.Gardner	Lamiaceae

Species	Author	Family
<i>Dampiera candidans</i>	F.Muell.	Goodeniaceae
<i>Dodonaea coriacea</i>	(Ewart & O.B. Davies) McGill.	Sapindaceae
<i>Dodonaea hispidula var arida</i>	(S.T.Reynolds) M.G.Harr.	Sapindaceae
<i>Dolichandrone heterophylla</i>	(R.Br.) F.Muell.	Bignoniaceae
<i>Duboisia hopwoodii</i>	(F.Muell.) F.Muell.	Solanaceae
<i>Dysphania plantaginella</i>	F.Muell.	Chenopodiaceae
<i>Ehretia saligna</i>	R.Br.	Boraginaceae
<i>Enneapogon purpurascens</i>	(R.Br.) P. Beauv.	Poaceae
<i>Eragrostis falcata</i>	(Gaudich.) Steud.	Poaceae
<i>Erythrophleum chlorostachys</i>	(F.Muell.) Baill.	Fabaceae
<i>Eulalia aurea</i>	(Bory) Kunth	Poaceae
<i>Euphorbia australis</i>	Boiss.	Euphorbiaceae
<i>Euphorbia drummondii</i>	Bioss.	Euphorbiaceae
<i>Evolvulus alsinoides</i>	(L.) L.	Convolvulaceae
<i>Ficus brachypoda</i>	(Miq.) Miq	Moraceae
<i>Frankenia ambita</i>	Ostenf.	Frankeniaceae
<i>Gompholobium simplicifolium</i>	(F.Muell. & Tate) Crisp	Fabaceae
<i>Gomphrena cunninghamii</i>	(Moq.) Druce	Amaranthaceae
<i>Goodenia azurea</i>	F.Muell.	Goodeniaceae
<i>Goodenia microptera</i>	F.Muell.	Goodeniaceae
<i>Goodenia stobbsiana</i>	F.Muell.	Goodeniaceae
<i>Gossypium australe</i>	F.Muell.	Malvaceae
<i>Grevillea eriostachya</i>	Lindl.	Proteaceae
<i>Grevillea pyramidalis</i>	R.Br.	Proteaceae
<i>Grevillea refracta</i>	R.Br.	Proteaceae
<i>Grevillea wickhamii</i>	Meisn.	Proteaceae
<i>Gyrostemon tepperi</i>	(H.Walter) A.S.George	Gyrostemonaceae
<i>Hakea chordophylla</i>	F.Muell.	Proteaceae
<i>Hakea macrocarpa</i>	R.Br.	Proteaceae
<i>Halgania erecta</i>	Ewart & B.Rees	Boraginaceae
<i>Halgania solanacea</i>	F.Muell.	Boraginaceae
<i>Heliotropium leptaleum</i>	Craven	Boraginaceae
<i>Heliotropium transforme</i>	Craven	Boraginaceae
<i>Heliotropium vestitum</i>	Benth.	Boraginaceae
<i>Hibiscus austrinus</i>	Juswara & Craven	Malvaceae
<i>Hibiscus burtonii</i>	Bailey	Malvaceae
<i>Hybanthus aurantiacus</i>	(Benth.) F.Muell.	Violaceae
<i>Indigofera colutea</i>	(Burm.f.) Merr.	Fabaceae
<i>Indigofera linnaei</i>	Ali	Fabaceae
<i>Indigofera monophylla</i>	DC	Fabaceae
<i>Indigofera oblongifolia</i>	Forssk.	Fabaceae
<i>Ipomoea muelleri</i>	Benth.	Convolvulaceae
<i>Jacksonia aculeata</i>	W.Fitz.	Fabaceae
<i>Leptosema anomalum</i>	(Ewart & Morrison) Crisp	Fabaceae
<i>Melaleuca alsophila</i>	Benth.	Myrtaceae

Species	Author	Family
<i>Melaleuca glomerata</i>	F.Muell.	Myrtaceae
<i>Melaleuca lasiandra</i>	F.Muell.	Myrtaceae
<i>Melhania oblongifolia</i>	F.Muell.	Malvaceae
<i>Mollugo molluginis</i>	(F.Muell.) Druce	Molluginaceae
<i>Neobassia astrocarpa</i>	(F.Muell.) A.J.Scott	Chenopodiaceae
<i>Newcastelia cladotricha</i>	F.Muell.	Lamiaceae
<i>Nicotiana rosulata subsp. rosulata</i>	(S.Moore) Domin	Solanaceae
<i>Owenia reticulata</i>	F.Muell.	Meliaceae
<i>Panicum decompositum</i>	R.Br.	Poaceae
<i>Persoonia falcata</i>	R.Br.	Proteaceae
<i>Phyllanthus eremicus</i>	R.L.Barrett&I.Telford	Phyllanthaceae
<i>Pimelea ammocharis</i>	F.Muell.	Thymeleaceae
<i>Pluchea dentex</i>	Benth.	Asteraceae
<i>Pluchea ferdinandi-muelleri</i>	Domin	Asteraceae
<i>Pluchea tetrantha</i>	F.Muell.	Asteraceae
<i>Polymeria ambigua</i>	R.Br.	Convolvulaceae
<i>Portulaca oleracea</i>	L.	Portulacaceae
<i>Portulaca pilosa</i>	L.	Portulacaceae
<i>Pterocaulon sphacelatum</i>	(Labill.)F.Muell.	Asteraceae
<i>Ptilotus arthrolasius</i>	F.Muell.	Amaranthaceae
<i>Ptilotus astrolasius</i>	F.Muell.	Amaranthaceae
<i>Ptilotus axillaris</i>	(Benth.) F.Muell.	Amaranthaceae
<i>Ptilotus calostachyus</i>	F.Muell.	Amaranthaceae
<i>Ptilotus fusiformis</i>	(R.Br.)Poir	Amaranthaceae
<i>Ptilotus nobilis var nobilis</i>	(Lindl.) F.Muell.	Amaranthaceae
<i>Ptilotus polystachyus</i>	(Gaudich.) Muell.	Amaranthaceae
<i>Rhynchosia minima</i>	(L.) DC.	Fabaceae
<i>Salsola tragus</i>	L.	Chenopodiaceae
<i>Santalum lanceolatum</i>	R.Br.	Santalaceae
<i>Scaevola parvifolia var parvifolia</i>	K.Krause	Goodeniaceae
<i>Scaevola spinescens</i>	R.Br.	Goodeniaceae
<i>Senna artemisioides subsp. helmsii</i>	(Symon) Randell	Fabaceae
<i>Senna curvistyla</i>	(J.M.Black) Randell	Fabaceae
<i>Senna glutinosa subsp. glutinosa</i>	(DC.) Randell	Fabaceae
<i>Senna notabilis</i>	(F.Muell.) Randell	Fabaceae
<i>Senna venusta</i>	(F.Muell.) Randell	Fabaceae
<i>Seringia elliptica</i>	C.F.Wilkins	Malvaceae
<i>Seringia katatona</i>	(C.F.Wilkins) C.F.Wilkins& Whitlock	Malvaceae
<i>Seringia nephrosperma</i>	F.Muell.	Malvaceae
<i>Sida arenicola</i>	S.T. Reynolds & A.E. Holland	Malvaceae
<i>Sida calyxhymenia</i>	DC	Malvaceae
<i>Solanum dioicum</i>	W.Fitz.	Solanaceae
<i>Solanum diversiflorum</i>	F.Muell.	Solanaceae
<i>Solanum esuriale</i>	Lindl.	Solanaceae
<i>Solanum lucani</i>	F.Muell.	Solanaceae

Species	Author	Family
<i>Spermacoce occidentalis</i>	Harwood	Rubiaceae
<i>Sporobolus australasicus</i>	Domin	Poaceae
<i>Stemodia grossa</i>	Benth.	Plantaginaceae
<i>Stemodia lathraia</i>	W.R.Barker	Plantaginaceae
<i>Streptoglossa tenuiflora</i>	Dunlop	Asteraceae
<i>Stylobasium australe</i>	(Hook.) Prance	Stylobasiaceae
<i>Surreya diandra</i>	(R.Br.) R.Masson&G.Kadereit	Amaranthaceae
<i>Swainsona pterostylis</i>	(DC.) Bakh.f.	Fabaceae
<i>Tecticornia auriculata</i>	(Paul G.Wilson) K.A.Sheph. & Paul G.Wilson	Chenopodiaceae
<i>Tephrosia leptoclada</i>	Benth.	Fabaceae
<i>Tinospora smilacina</i>	Benth.	Menispermaceae
<i>Trachymene oleracea</i>	(Domin) B.L.Burtt	Araliaceae
<i>Trianthema pilosum</i>	F.Muell.	Aizoaceae
<i>Trianthema triquetra</i>	Willd	Aizoaceae
<i>Trianthema turgidifolia</i>	F.Muell.	Aizoaceae
<i>Tribulopsis marliesiae</i>	R.L.Barrett	Zygophyllaceae
<i>Tribulus occidentalis</i>	R.Br.	Zygophyllaceae
<i>Trichodesma zeylanicum var. zeylanicum</i>	(Burm.f.) R.Br.	Boraginaceae
<i>Trichosanthes cucumerina</i>	L.	Cucurbitaceae
<i>Triodia epactia</i>	S.W.L. Jacobs	Poaceae
<i>Triodia schinzii</i>	Lazarides	Poaceae
<i>Triumfetta chaetocarpa</i>	F.Muell.	Malvaceae
<i>Velleia panduriformis</i>	Benth.	Goodeniaceae
<i>Xerochloa barbata</i>	R.Nr.	Poaceae
<i>Zornia chaetophora</i>	F.Muell.	Fabaceae

4.9 CONSERVATION SIGNIFICANT FLORA

A significant flora search requested from the DBCA (Ref. 27-0817FL) (Department of Biodiversity, Conservation and Attractions, 2017c) for a 50 km buffer of the study area found 9 species of conservation significance. No DBCA records occur within the Stage 4 project area.

All significant flora species from the DBCA search are listed in Table 8, along with their conservation significance and an assessment of the likely presence.

During field surveys, three species of conservation significance were located (Figure 11) as described in the sub-sections below.

Table 8: Significant Flora Records – DBCA Search

Taxon	Cons. Code	Description	Habitat	Presence in the Study Area
<i>Acacia monticola</i> × <i>tumida</i> var. <i>kulparn</i>	P3	Shrub, to 2 m high, flower yellow April - August	Red sand, ironstone or lateritic soils, sandstone. Pindan plains, stony plains, low rocky ridges.	Not detected and unlikely to be present, field studies corresponded to flowering time

Taxon	Cons. Code	Description	Habitat	Presence in the Study Area
<i>Bonamia oblongifolia</i>	P3	Perennial, herb or shrub. Flowers blue, February to August	Sandy or gravelly soils.	Present in the Acacia and Acacia-Melaleuca shrublands
<i>Bulbostylis burbridgeae</i>	P4	Tufted, erect to spreading annual sedge, 0.03-0.25 m high, Fl. brown, Mar or Jun to Aug.	Granitic soils. Granite outcrops, cliff bases.	Not located and unlikely to be present as its preferred habitat is absent
<i>Euphorbia clementii</i>	P3	Erect herb, to 0.6 m high.	Gravelly hillsides, stony grounds.	Not located and unlikely to be present, other species of herbaceous spurges were noted during the surveys
<i>Nicotiana umbratica</i>	P3	Erect, short-lived annual or perennial, herb, 0.3-0.7 m high. Fl. white, Apr to Jun.	Shallow soils. Rocky outcrops.	Not located and unlikely to be present as its preferred habitat is absent
<i>Rothiaindica subsp.australis</i>	P3	Prostrate annual, herb, to 0.3 m high, densely covered in spreading hairs. Fl. Apr to Aug.	Sandy soils. Sandhills and sandy flats.	Not detected and unlikely to be present, field studies corresponded to flowering time, other species of Pea were noted during the surveys
<i>Seringia katatona</i>	P3	Shrub to 80cms. Flowers purple/green. March to August	Dune swales in red sands (Pindan)	Present within the Pindan Open woodland communities
<i>Tribulopsis marliesiae</i>	P3	Perennial, prostrate and open shrub: 0.10 m high and 1 m wide. Yellow flower.	Plains and dune swales. Brown dry sand.	Present within the Pindan Open woodland communities and less frequently within the Acacia shrubland

4.9.1 BONAMIA OBLONGIFOLIA (PRIORITY 3)

Bonamia oblongifolia is a low scrambling woody perennial. *B. oblongifolia* is most similar to *B. linearis* but differs from it in possessing shorter petioles, smaller flowers and by having obtuse (versus acute) leaf apices and bases (Myint & Ward, 1968).

Bonamia oblongifolia (Plate 1) was identified as occurring across the study area (Figure 11) and also further afield. Within the survey areas, *B. oblongifolia* occurs as individual plants or small localised populations (<20 plants). Plants are found underneath taller shrubs and also exposed on open sandy areas often associated with disturbances from stock grazing and trampling (Plates 1 to 4). The locations of all records for this species are provided in Appendix H.

Populations of the species were assessed in three areas during field studies at Wallal Downs where it occurred more extensively (EnviroWorks Consulting, 2016b) and at Anna Plains where it was localised (EnviroWorks Consulting, 2017a). The regional distribution of *Bonamia oblongifolia* is shown in Figure 12.

The total regional population size of *Bonamia oblongifolia* based on regional surveys and likely density extrapolation in similar land systems, was estimated to be approximately 1,179,006 plants (after planned clearing was taken into account) (EnviroWorks Consulting, 2017b).



Plate 1: *Bonamia oblongifolia* (mature plant).



Plate 2: *Bonamia oblongifolia* habitat – heavily grazed Pindan Vegetation.



Plate 3: *Bonamia oblongifolia* habitat – roadside drains



Plate 4: *Bonamia oblongifolia* habitat – firebreaks and fencelines.

4.9.2 TRIBULOPIS MARLIESIAE (PRIORITY 3)

Tribulopsis marliesiae is a slender herb with a perennial corky rootstock. It grows to 40 cm high and 80 cm across. It is distinguished from *T. angustifolia*. by the following combination of characters: erect perennial herb with branches decumbent at length, leaves that possess 2 or 3 pairs of filiform, subtly grooved leaflets. The yellow flowers are borne on long pedicels 33–62 mm from August to November (Plate 5).

Tribulopsis marliesiae occurs within the Acacia Shrubland, Pindan Open Woodland/Shrubland and Acacia/Melaleuca Shrubland Floristic Communities in the southern part of the study area (Figure 11). The species is more common in the Pindan Woodland 1 and 2 communities. Plants are mostly found in association with hummocks of *Triodia* (Plate 6).

Regionally, *Tribulopsis marliesiae* occurs from Pardoo Roadhouse north to Roebuck Plains Station in the Dampier Botanical District and inland to the northern Great Sandy Desert (Figure 12). It is restricted to red sands in heath and low Pindan, particularly with *Acacia tumida*. *Tribulopsis marliesiae* often co-occurs with *T. angustifolia* (Barrett & Barrett, 2015).

The regional population of this species is likely to be extensive given the large number of records encountered to date and its ubiquitous habitat type (Figure 12). It was first located during the September 2017 field survey. GPS records for all Pardoo locations are included in Appendix H. Extrapolation of the likely density of this species (based on records to date) in surveyed areas estimates the local population of this species to be greater than 2,411,900 plants (Figure 12).



Plate 5: *Tribulopsis marliesiae* flower.



Plate 6: *Tribulopsis marliesiae* habit, growing with *Triodia* hummock.

4.9.3 SERINGIA KATATONA (PRIORITY 3)

The genus *Seringia* was revised in 2016 (Wilkins and Whitlock, 2016). Three species of *Seringia* have been identified within the Stage 4 study area. All are similar vegetatively and can only be distinguished using morphological features of the flowers and fruits. All 3 species are slender low shrubs to 75cm with green-purple flowers (Plate 7). At the time of the survey the majority of plants were not in flower or fruit despite the survey coinciding with their known flowering times.

Seringia elliptica and *S. nephrosperma* are widespread species within Northern Western Australia and are not conservation significant. *Seringia katatona* (Priority 3) occurs from Pardoo Roadhouse north to Broome in the Pindanland and McLarty IBRA subregions (Figure 12). It is considered to be restricted to red sands in heath and low Pindan, particularly with *Acacia tumida* (Wilkins, 1999).

Figure 11 shows its distribution within the study area. *Seringia katatona* was positively identified at two locations (Figure 11). This figure also shows locations of populations which were not in flower and where the species type could not be fully determined. GPS records for all Pardoo locations are included in Appendix H.

It is highly likely that *Seringia katatona* occurs more widely on Pardoo Station and within the region based its Pindan habitat type which is ubiquitous within the region. Therefore, it is considered very unlikely that the Pardoo Irrigation Project will significantly impact the regional population of this species.



Plate 7: *Seringia katatona*.

4.10 CLEARING OF EASEMENTS AND PRIORITY FLORA

The populations of these species were found to be extensive locally at Pardoo Station. The easement study area intact vegetation represents a very small proportion of the total area surveyed (11.4 ha of 12,198.6 ha or 0.09%). It is understood that the actual area of clearing proposed is only 1.2 ha in size.

Whilst some individual plants of the abovementioned priority flora could occur within the proposed easement clearing footprint, if present, they would represent a very small proportion of the total number of individual plants within the surrounding area.

Therefore, impacts to priority species from the proposed easement clearing is not considered to be significant.

4.11 WEEDS

During the field surveys four weed species were recorded as outlined below in Table 9. *Aerva javanica* and *Cenchrus ciliaris* are common weeds associated with disturbance and agriculture. *Tamarix aphylla* occurs as persistent trees around an abandoned outstation and near watering troughs. *Calotropis procera* occurs in disturbed areas at watering points. Weeds were generally uncommon except where grazing and trampling were also main disturbances.

Table 9: Weed Species Recorded in Field Surveys

Species	Author	Family
<i>Aerva javanica</i>	(Burm.f.)Schult.	Amaranthaceae
<i>Calotropis procera</i>	(Aiton) W.T.Aiton	Apocynaceae
<i>Cenchrus ciliaris</i>	L.	Poaceae
<i>Tamarix aphylla</i>	(L.) H.Karst	Tamaricaceae

5 LIMITATIONS

There are a number of limitations that may arise during flora and vegetation surveying. These survey limitations are addressed in Table 10 below.

Table 10: Consideration of Study Limitations

Limitation	Comment
Survey Intensity (In retrospect, was the intensity adequate?)	Survey intensity (desktop research followed by site visits in May, July, August and September) conducted site surveys associated with main flowering time. Desktop survey considered appropriate for re-zoning and easement areas.
Competency/experience of the consultant(s) carrying out the survey.	The author has had significant experience in flora and vegetation surveys including desktop reviews, site inspections and report writing.
Scope. (life forms sampled etc).	100% of flora species observed during the site visits were identified.
Proportion of flora collected and identified (based on sampling, timing and intensity).	Only species which were not identifiable in the field were collected for further identification. This was deemed suitable for the type of survey undertaken.
Timing/weather/season/cycle.	Survey timing follows EPA recommendations.
Disturbances (e.g. fire, flood, accidental human intervention etc.) which affected results of survey.	No disturbances affected the survey.
Completeness (e.g. was relevant area fully surveyed) and further work which might be needed.	Desktop survey considered appropriate for re-zoning and easement areas. No further work is currently deemed necessary.
Resources (e.g. degree of expertise available in flora identification to taxon level).	Appropriate resources were used. All specimens identified to species level.
Mapping reliability.	All mapping completed is deemed reliable. Hand held GPS used to record coordinates and mapping done using professional GIS system.
Access problems.	No access problems encountered.
Sources of information and availability of contextual information (i.e. pre-existing background versus new material).	Extensive regional and local information was available and was consulted. DBCA Threatened Flora and TEC Databases were searched and the author had conducted several previous studies in the region.

6 REFERENCES

- Barrett, R. L., & Barrett, M. D. (2015). Twenty-seven new species of vascular plants from Western Australia. *Nuytsia*, 26, 21-87.
- Beard, J. S. (1981). *Vegetation survey of Western Australia*. Perth: University of Western Australia Press.
- Beeston, G. R., Hopkins, A. J., & Shepherd, D. P. (2002). *Land-use and vegetation in Western Australia : project DAW27 : National Land and Water Resources Audit*. Perth: Department of Agriculture and Food, Western Australia.
- Clarke, K. R., & Gorley, R. N. (2006). *PRIMER v6: User Manual/Tutorial*. Plymouth: PRIMER-E.
- Department of Biodiversity, Conservation and Attractions. (2017a). *2016 Statewide Vegetation Statistics*. Perth: Department of Biodiversity, Conservation and Attractions.
- Department of Biodiversity, Conservation and Attractions. (2017b). *Priority Ecological Communities for Western Australia*. Perth: Government of Western Australia.
- Department of Biodiversity, Conservation and Attractions. (2017b). *Priority Ecological Communities for Western Australia*. Perth: Government of Western Australia.
- Department of Biodiversity, Conservation and Attractions. (2017c). *Threatened and Priority Flora Database Search for Pardoo Proposed Land Development Envelope accessed on the 25th August 2017*. Perth: Prepared by the Species and Communities Branch for EnviroWorks Consulting for Desktop Mapping.
- Department of the Environment and Energy. (n.d.). *Australia's bioregions (IBRA)*. Retrieved August 17, 2017, from Department of the Environment and Energy: <http://www.environment.gov.au/land/nrs/science/ibra>
- Environmental Protection Authority. (2016). *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment*. Perth: Environmental Protection Authority.
- EnviroWorks Consulting. (2016a). *Flora Survey Pardoo Station Pivot Irrigation Project Stages 2 and 3*. Perth: Unpublished Report Prepared by PBC Pty Ltd.
- EnviroWorks Consulting. (2016b). *Targeted Flora survey for Bonomia oblongifolia at Wallal Downs (Homestead)*. Perth: Report for Warrawagine Cattle Co and Grenleigh Pty Ltd.
- EnviroWorks Consulting. (2017a). *Flora and Vegetation Study Pardoo Station Pivot Irrigation Project Stage 3*. Perth: Unpublished Report Prepared for PBC Pty Ltd.
- EnviroWorks Consulting. (2017a). *Targeted Conservation Flora Survey at Anna Plains*. Perth: Report for Anna Plains Cattle Co Pty Ltd.
- EnviroWorks Consulting. (2017b). *Flora and Vegetation Study Pardoo Station Pivot Irrigation Project Stage 3*. Perth: Unpublished Report Prepared for Pardoo Beef Corporation Pty Ltd.
- Gibson, N., Keighery, B., Keighery, G., Burbidge, A., & Lyons, M. (1994). *A Floristic Survey of the southern Swan Coastal Plain*. Canberra: Australian Heritage Commission.
- Graham, G. (2001). Dampierland 2 (DL2 - Pindanland subregion). In J. E. May, & N. L. McKenzie (Eds.), *A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002* (pp. 179-187). Perth: Department of Conservation and Land Management.
- Keighery, B. (1994). *Bushland Plant Survey – A guide to Plant Community Survey for the Community*. Wildflower Society of Western Australia.
- Legendre, P., & Legendre, L. (2012). *Numerical Ecology (Developments in environmental modelling, 24)*. Amsterdam: Elsevier.
- May, J., & McKenzie, N. (2003). *A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002*. Perth: Department of Conservation and Land Management.
- Muir, B. (1977). *Biological Survey of the Western Australian Wheatbelt. Pt. 2. Vegetation and habitat of the Bending Reserve*. Western Australian Museum.
- Myint, T., & Ward, D. B. (1968). A taxonomic revision of the genus *Bonomia* (Convolvulaceae). *Phytologia*, 17, 121-239.
- Schoknecht, N. R., & Payne, A. L. (2011). *Land systems of the Kimberley region, Western Australia [Technical Bulletin 98]*. Perth: Department of Agriculture and Food, Western Australia.
- van Vreeswyk, A. M., Leighton, K. A., Payne, A. L., & Hennig, P. (2004). *An inventory and condition survey of the Pilbara region, Western Australia [Technical Bulletin 92]*. Perth: Department of Agriculture and Food, Western Australia.

Vreeswyk, Leighton, Payne and Hennig. (2004). *An inventory and condition survey of the Pilbara region, Western Australia*. Perth: Department of Agriculture and Food WA Technical Bulletin 92.

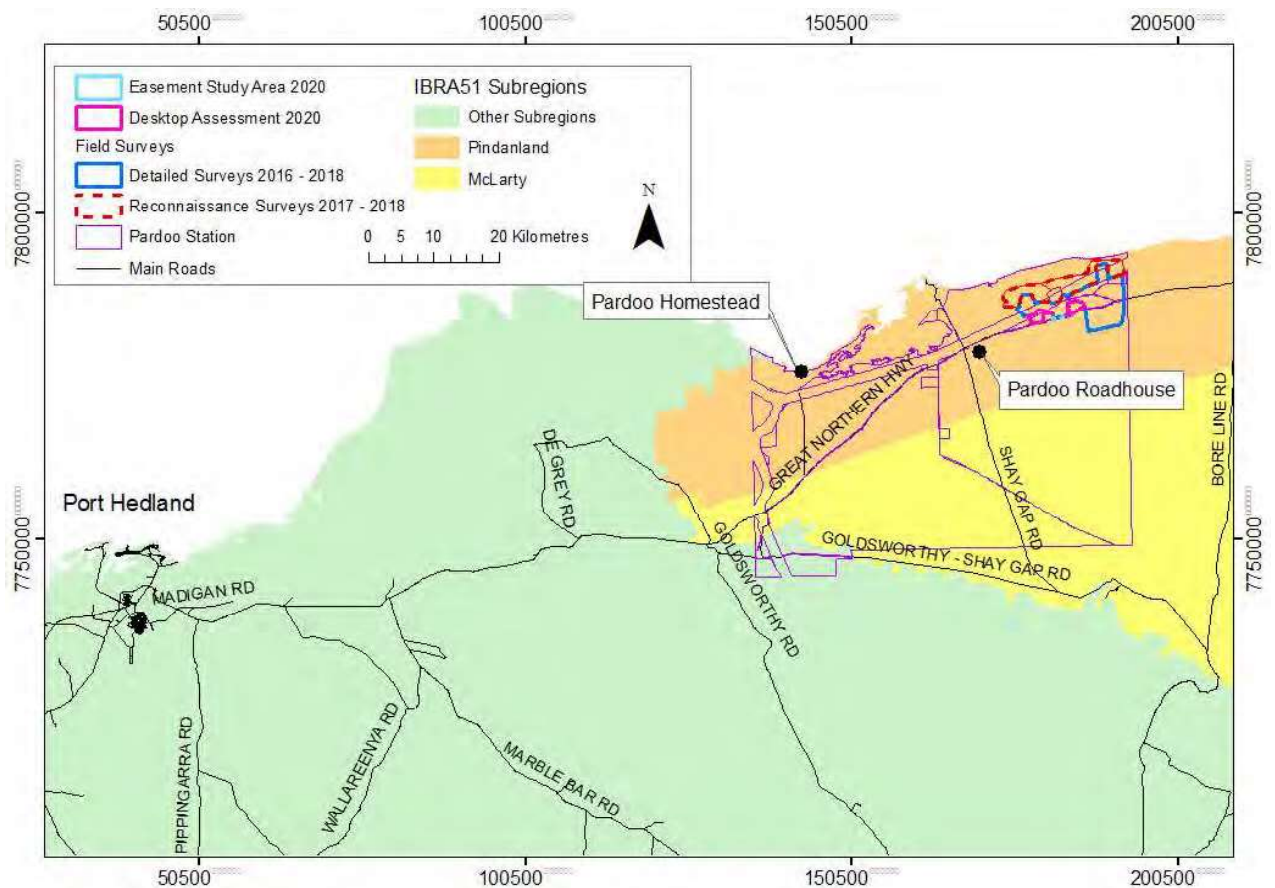


Figure 1: Location of Study Areas

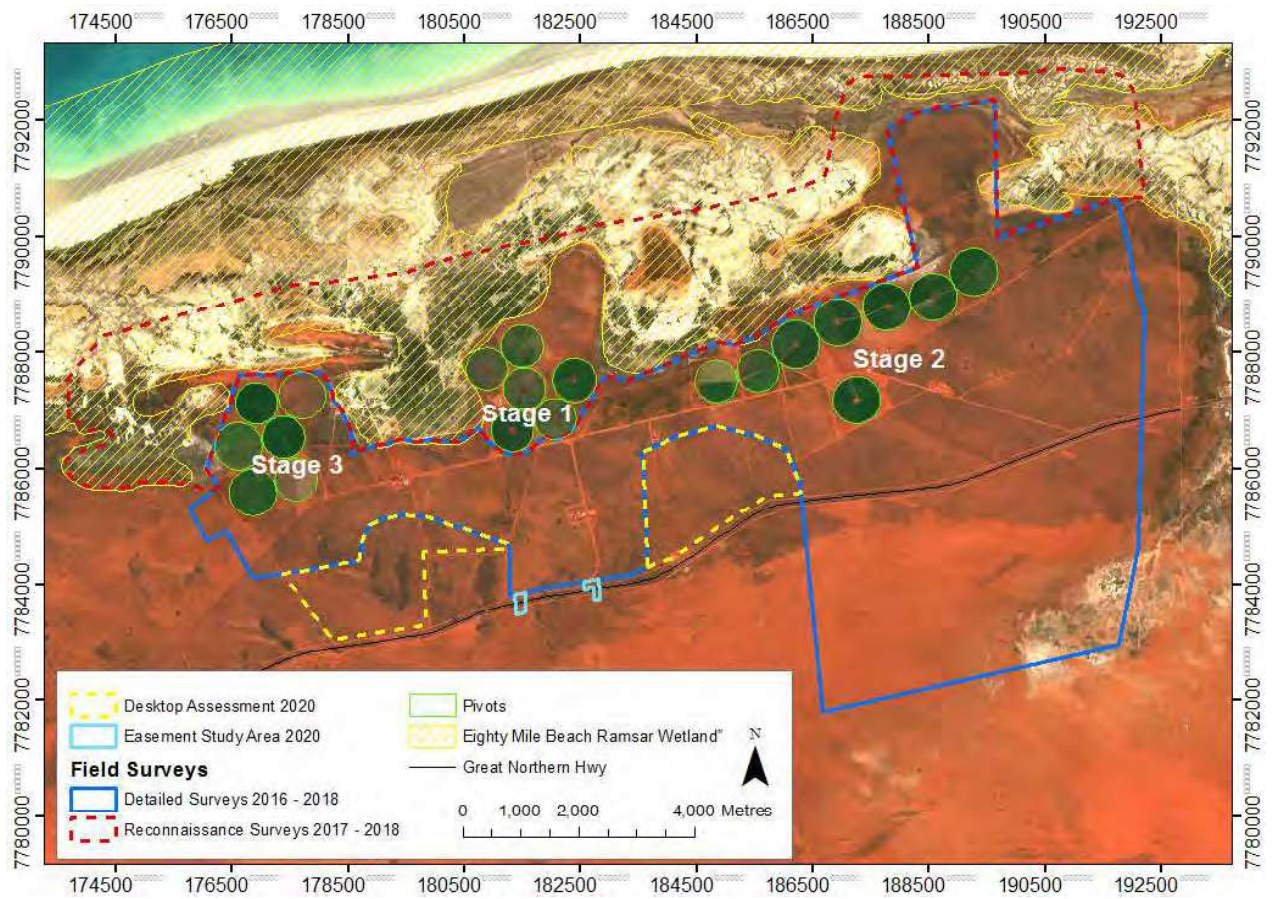


Figure 2: Aerial Photography and Study Areas

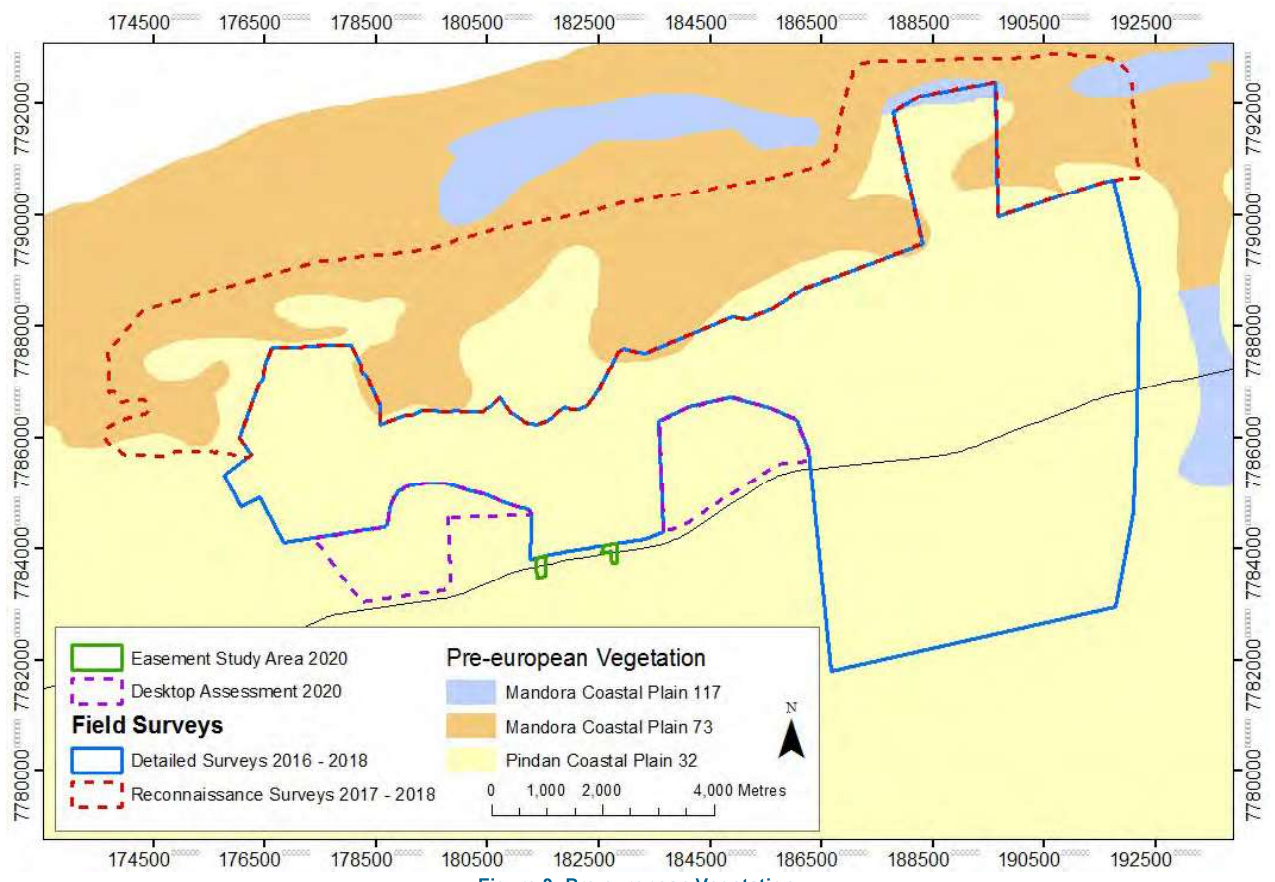


Figure 3: Pre-european Vegetation

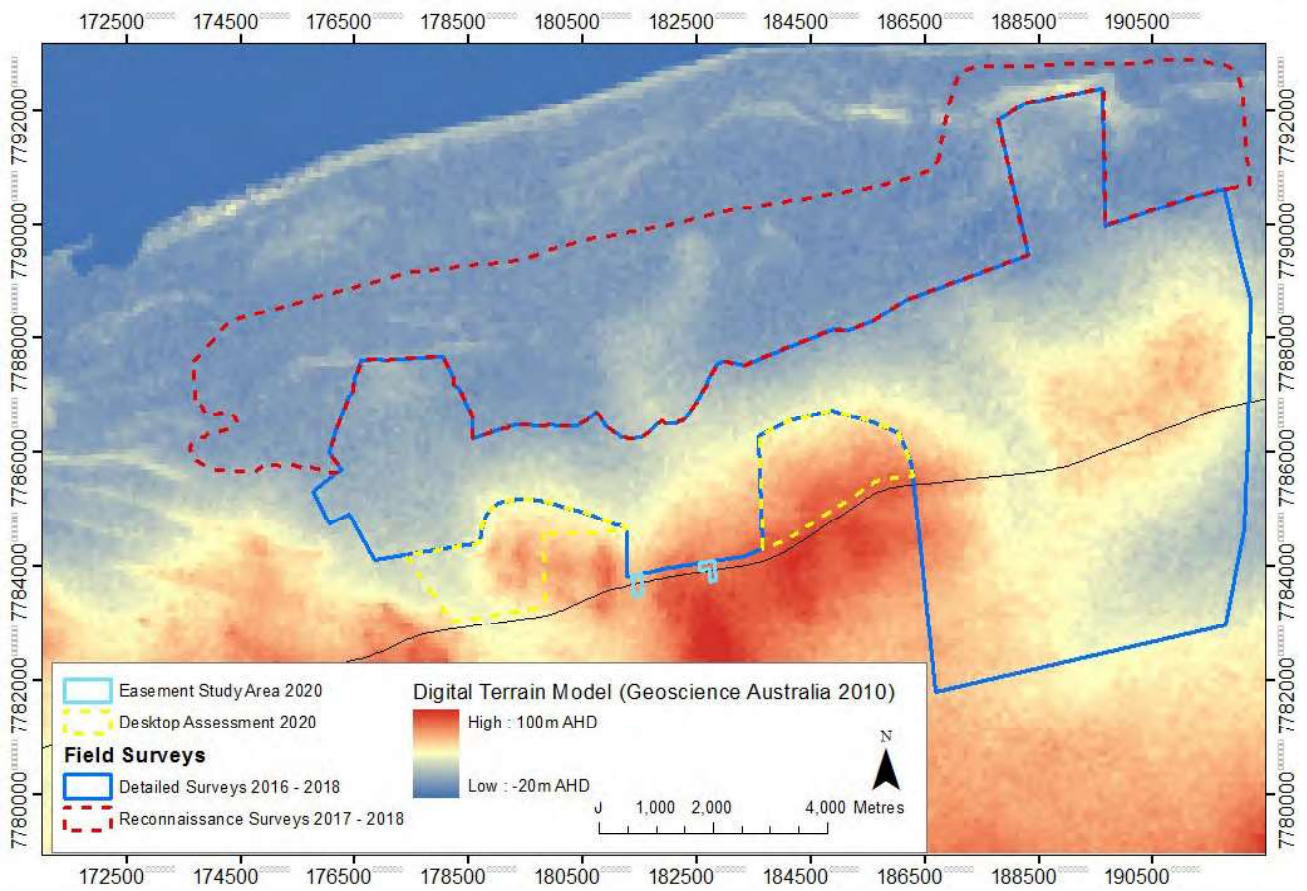


Figure 4: Topography

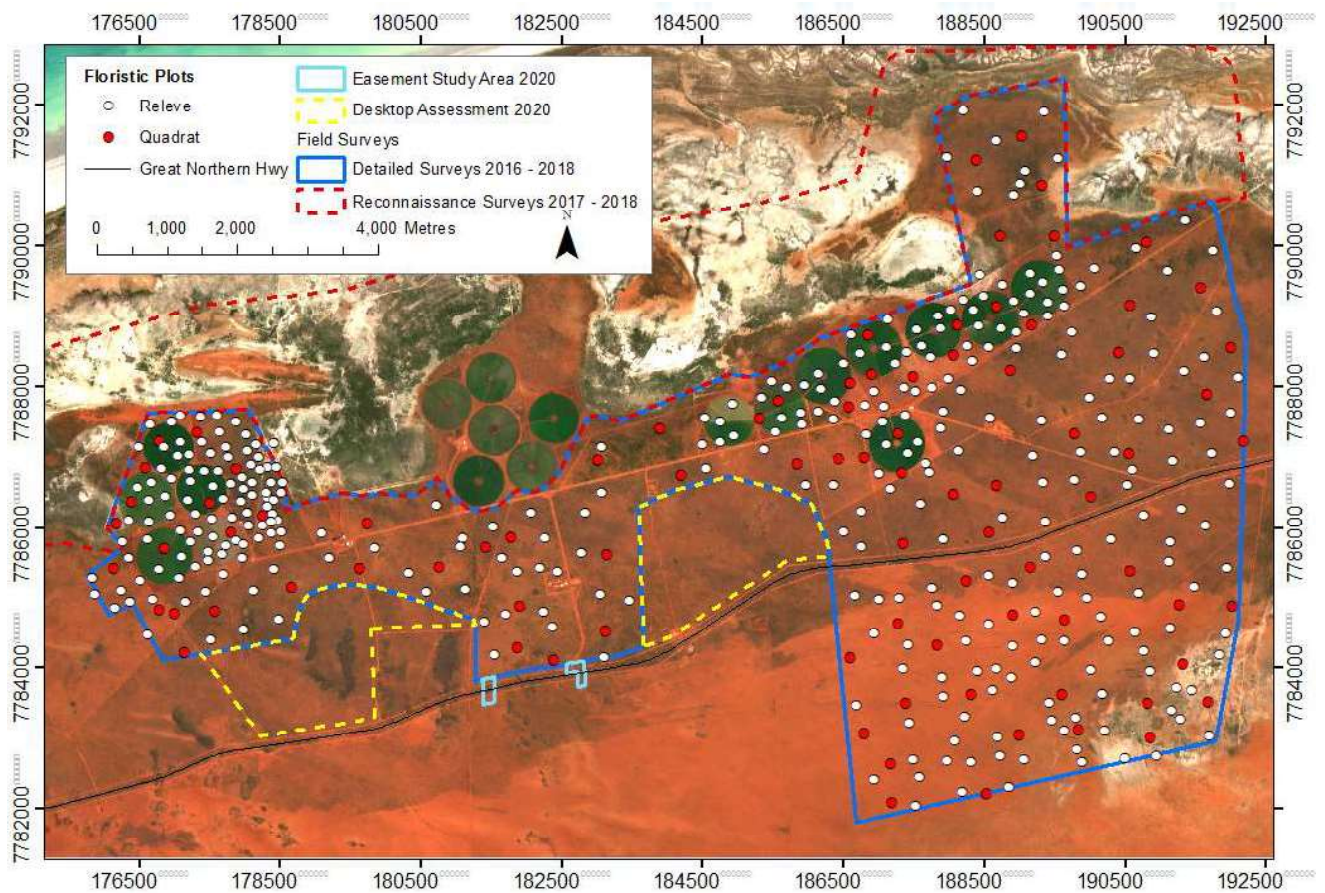


Figure 5: Floristic Quadrats and Releves

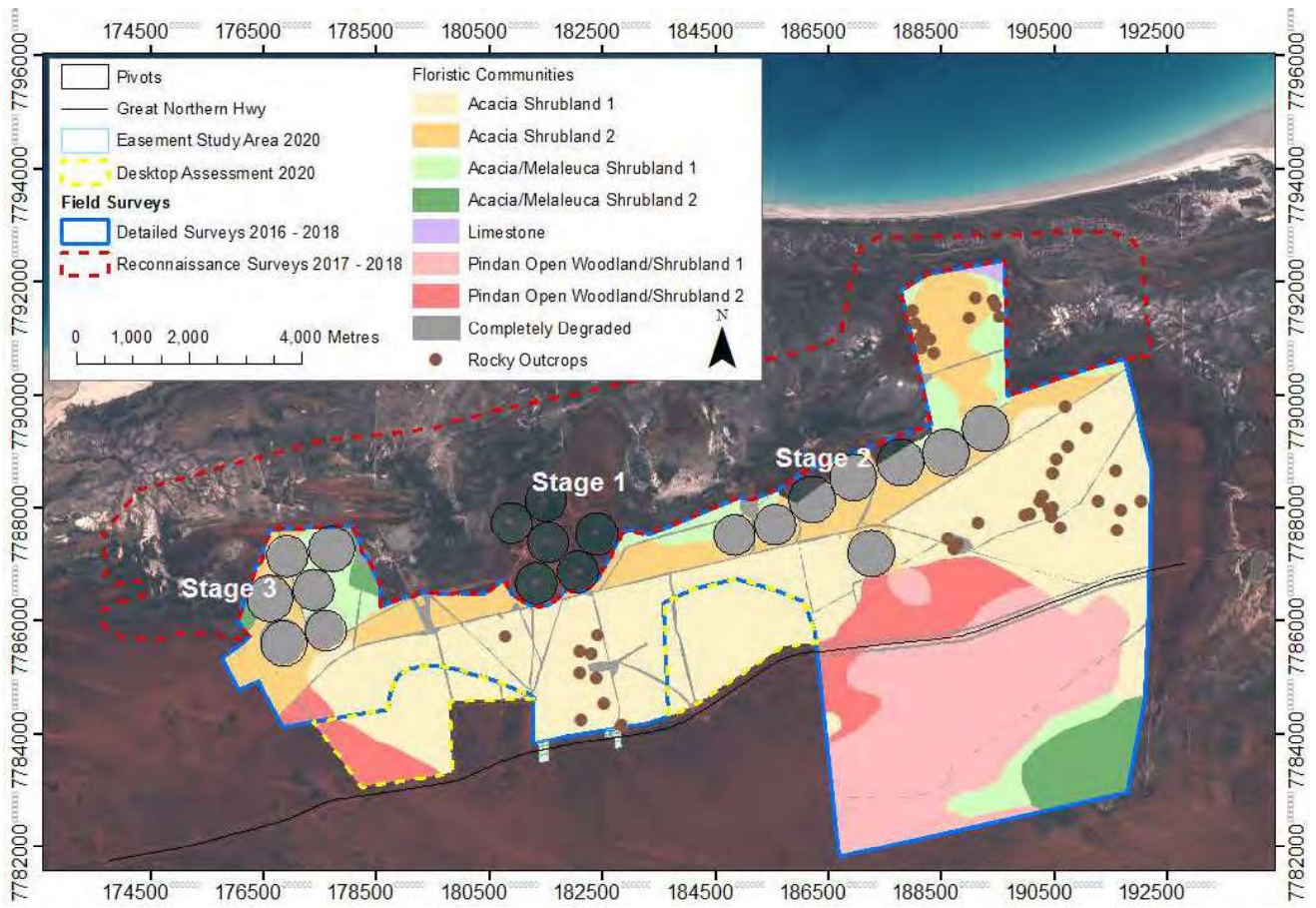


Figure 6: Floristic Communities

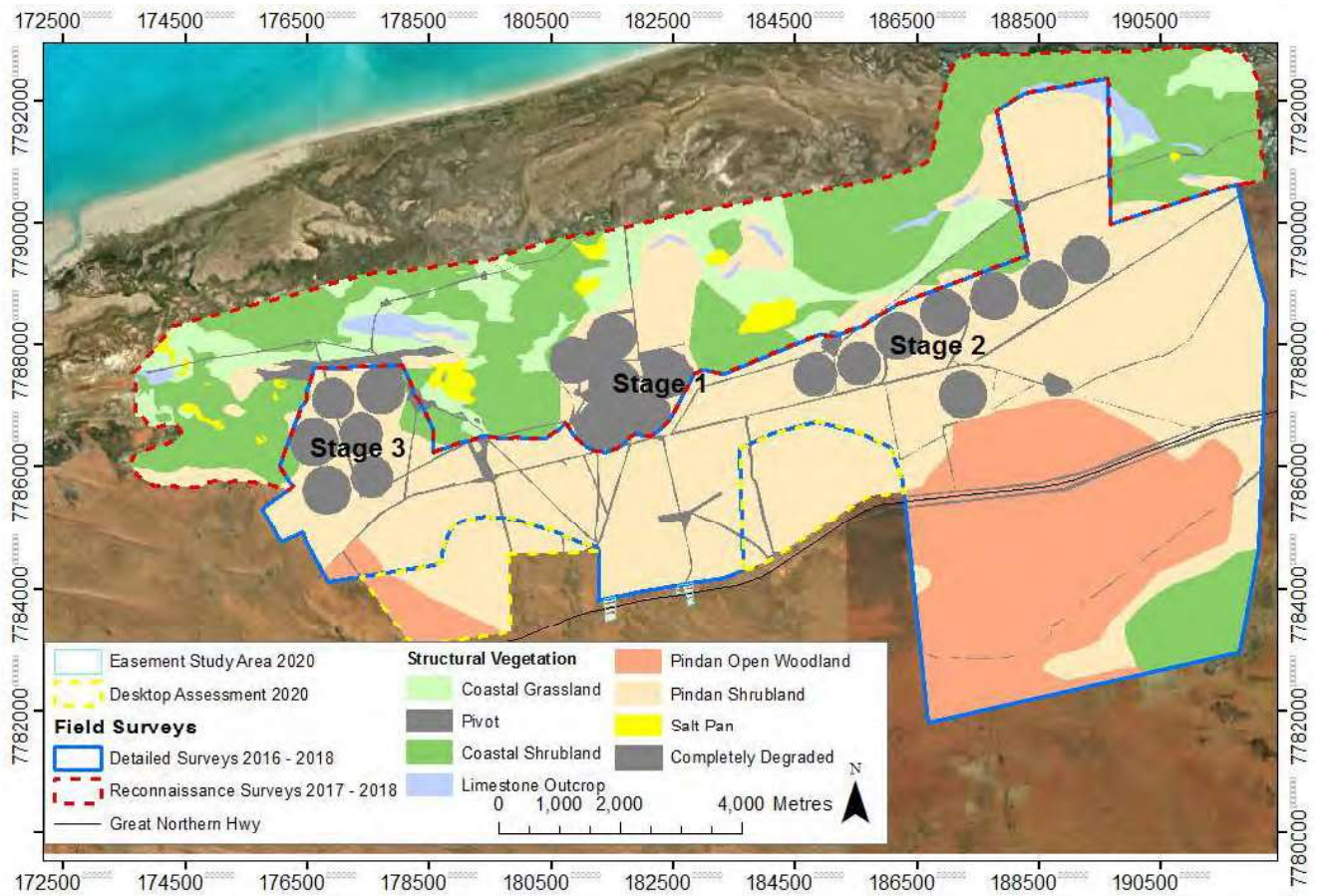


Figure 7: Structural Vegetation Communities

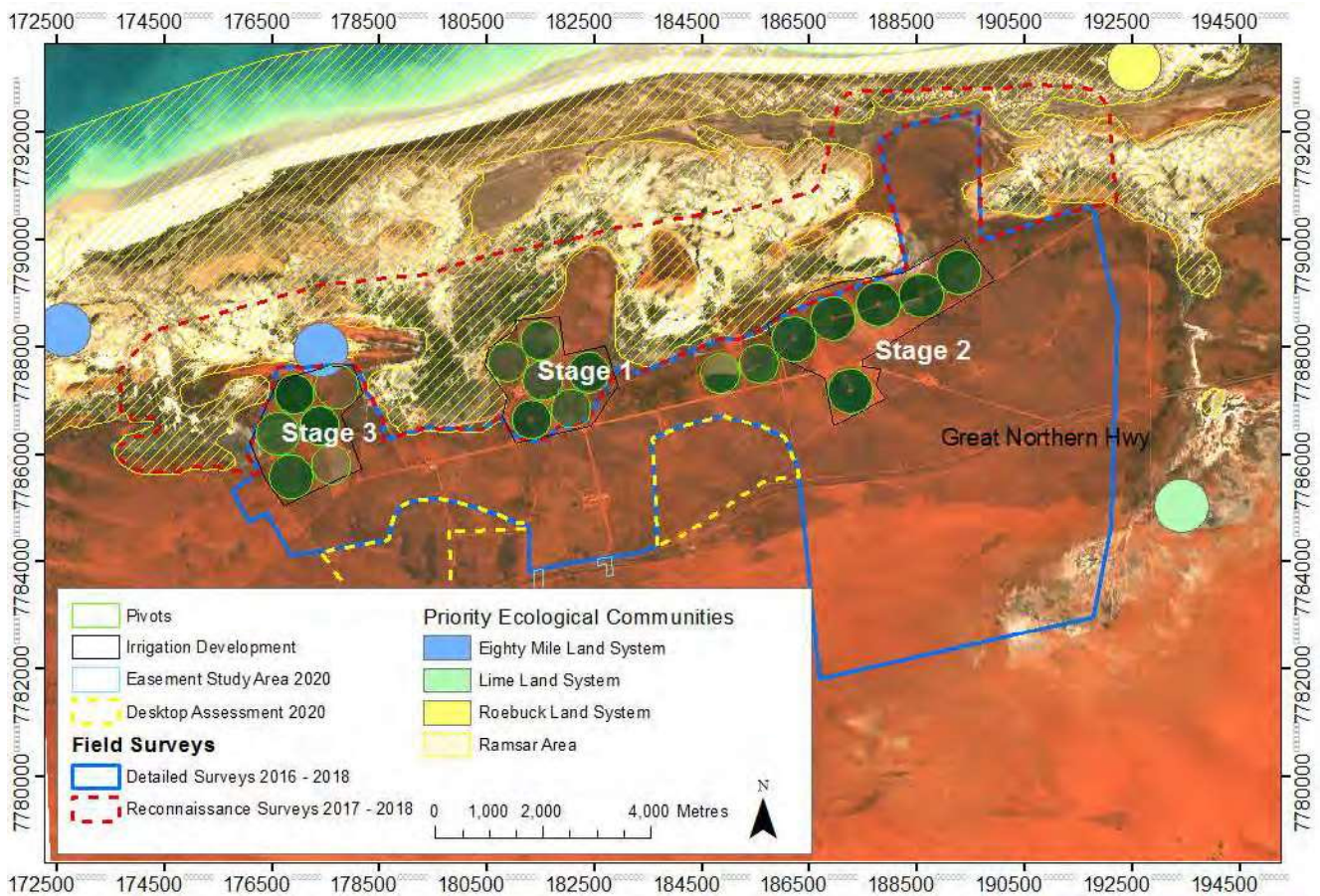


Figure 8: Priority Ecological Communities

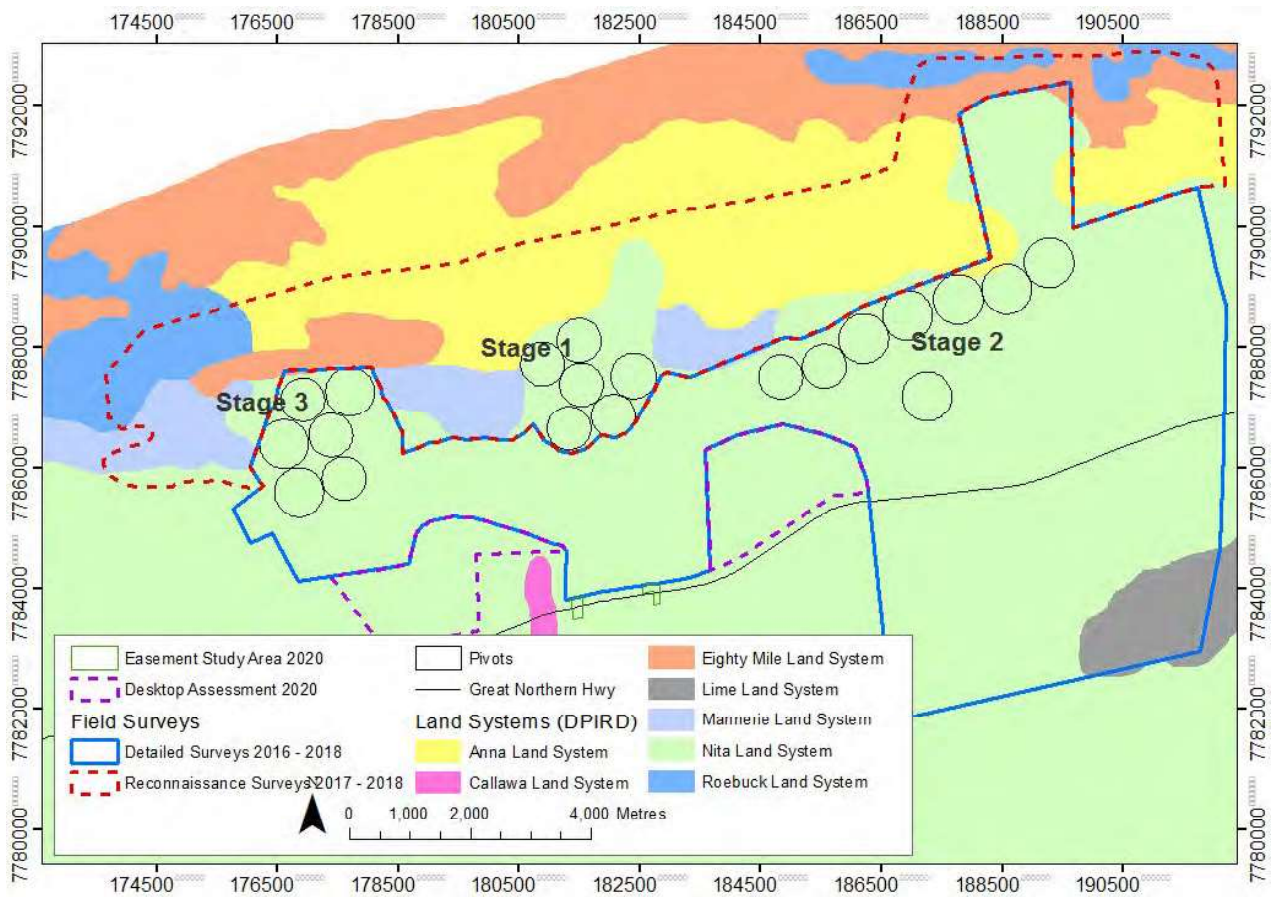


Figure 9: Land Systems

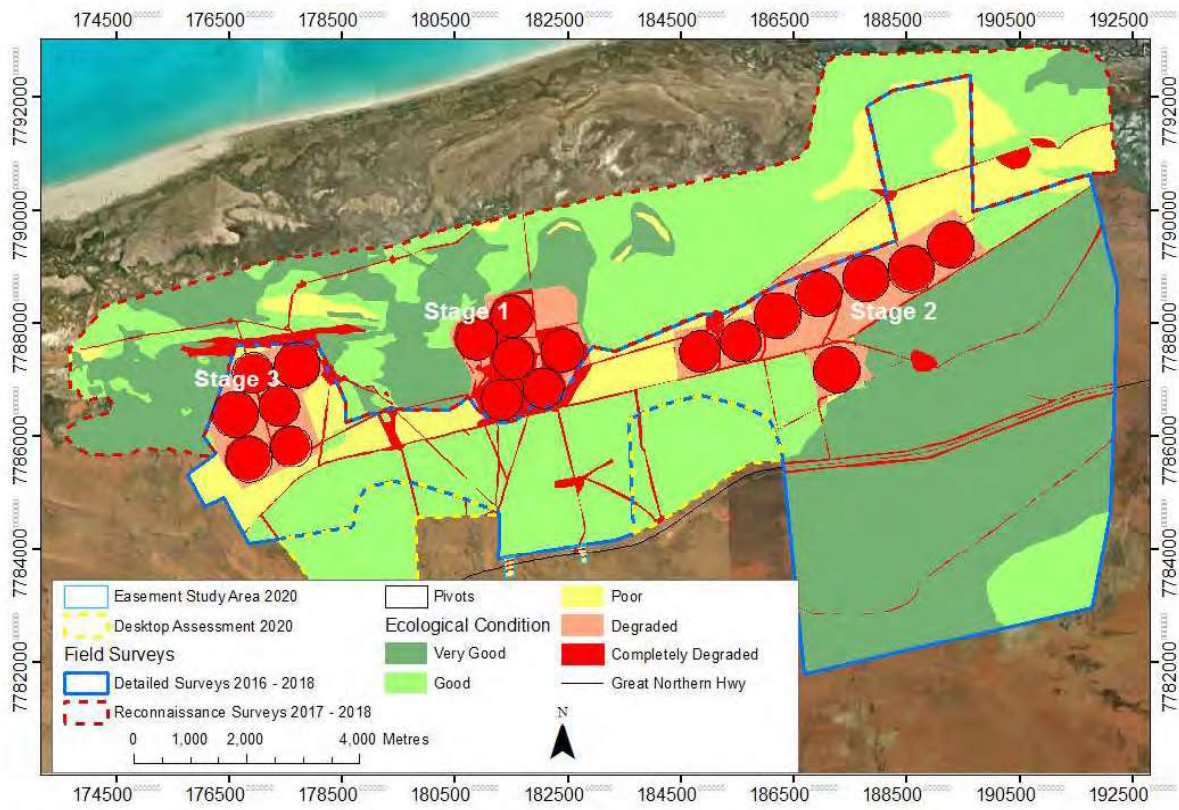


Figure 10: Ecological Condition

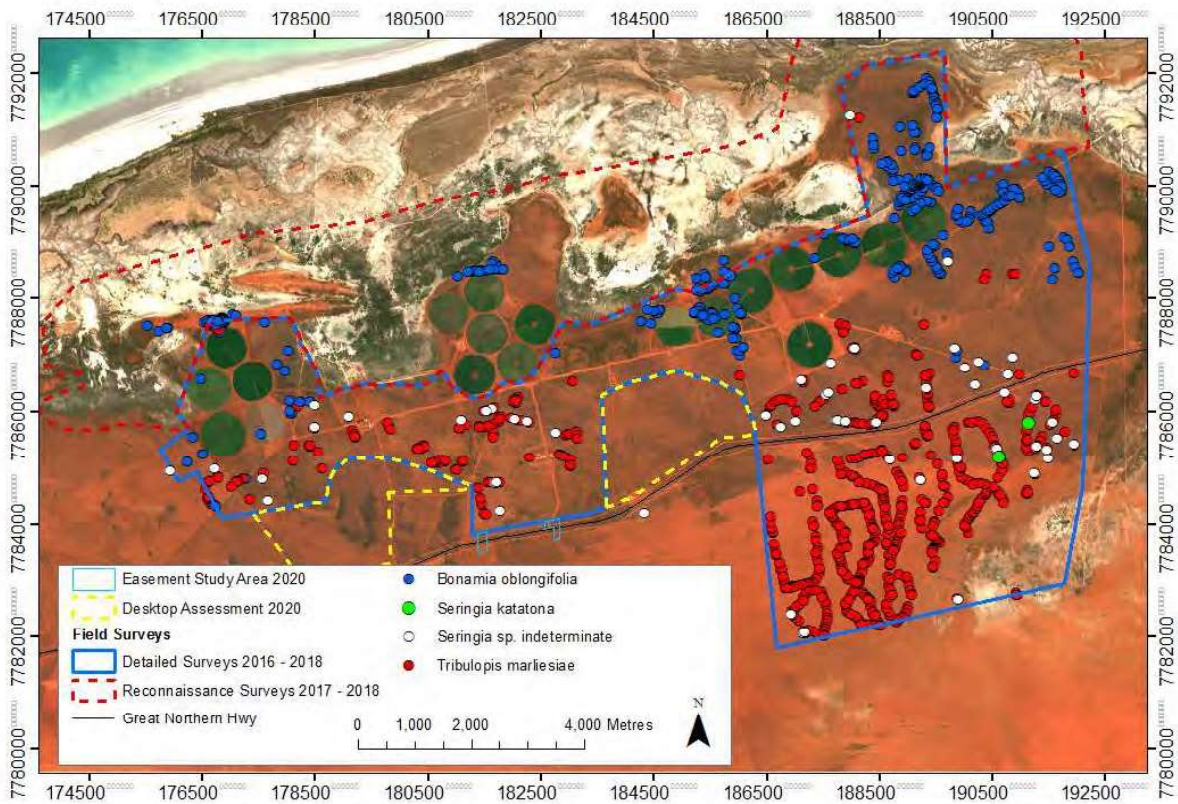


Figure 11: Distribution of Priority Flora

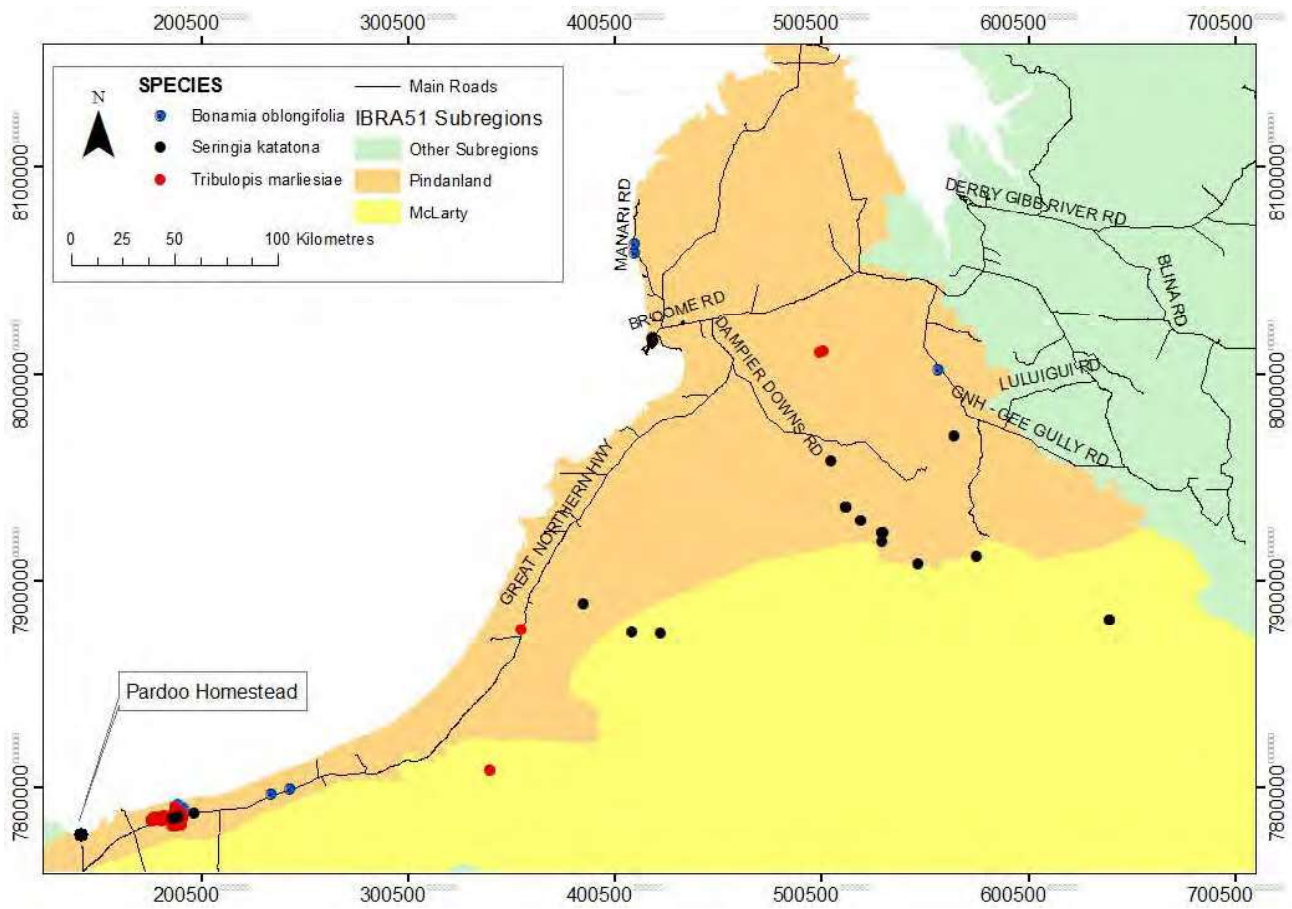


Figure 12: Regional Distribution of Priority Flora

APPENDIX A. CRITERIA USED FOR THE ASSESSMENT OF REMNANT VEGETATION CONDITION (ENVIRONMENTAL PROTECTION AUTHORITY, 2016).

Vegetation Condition	South West and Interzone Botanical Provinces	Eremaean and Northern Botanical Provinces
Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.	Not Used
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Not Used	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely Degraded	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 and shrubs.	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

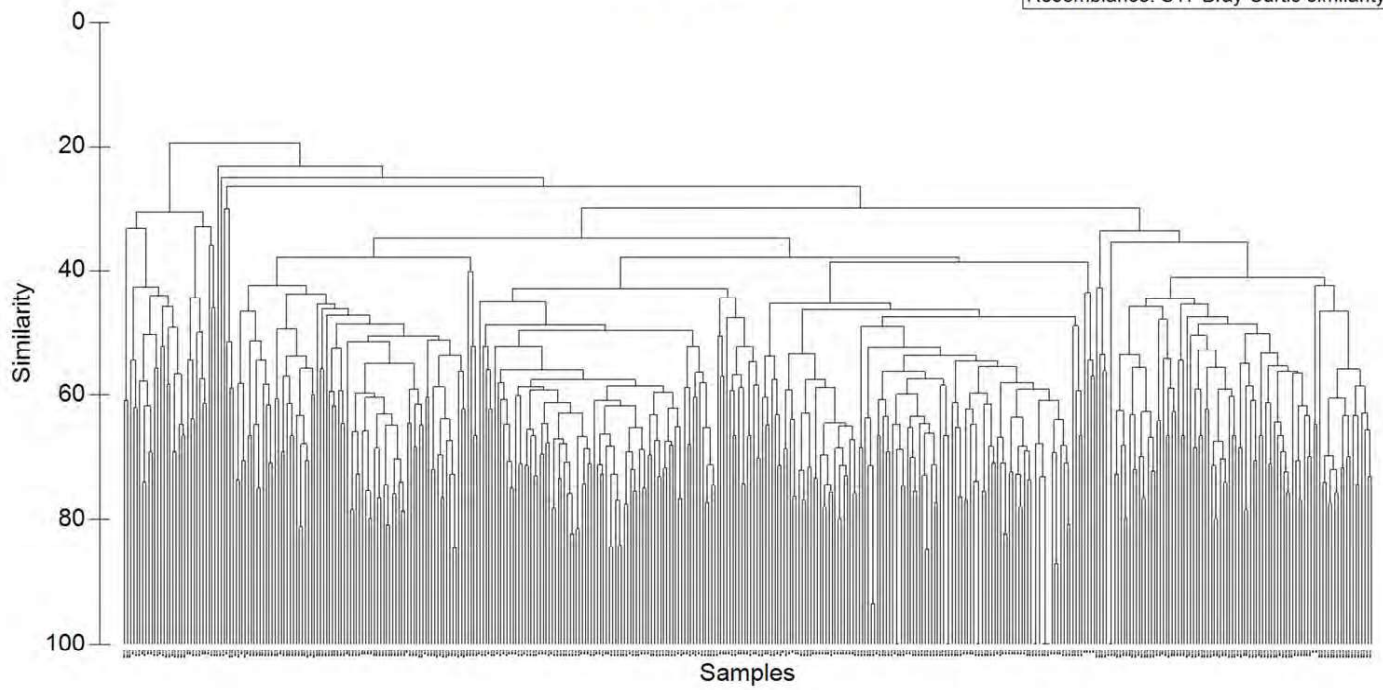
APPENDIX B. PLANT COMMUNITY STRUCTURAL FORMATION AND HEIGHT CLASSES(MUIR, 1977)

LIFE FORM/ HEIGHT CLASS	CANOPY COVER			
	Dense 70% - 100%	Mid-Dense 30% - 70%	Sparse 10% - 30%	Very Sparse 2% - 10%
Trees > 30m	Dense Tall Forest	Tall Forest	Tall Woodland	Open Tall Woodland
Trees 15 – 30m	Dense Forest	Forest	Woodland	Open Woodland
Trees 5 – 15m	Dense Low Forest A	Low Forest A	Low woodland A	Open Low Woodland A
Trees < 5m	Dense Low Forest B	Low Forest B	Low Woodland B	Open Low Woodland B
Mallee Tree Form	Dense Tree Mallee	Tree Mallee	Open Tree Mallee	Very Open Tree Mallee
Mallee Shrub Form	Dense Shrub Mallee	Shrub Mallee	Open Shrub Mallee	Very Open Shrub Mallee
Shrubs > 2m	Dense Thicket	Thicket	Scrub	Open Scrub
Shrubs 1.5 – 2m	Dense Heath A	Heath A	Low Scrub A	Open Low Scrub A
Shrubs 1 – 1.5m	Dense Heath B	Heath B	Low Scrub B	Open Low Scrub B
Shrubs 0.5 – 1m	Dense Low Heath C	Low Heath C	Dwarf Scrub C	Open Dwarf Scrub C
Shrubs 0 – 0.5m	Dense Low Heath D	Low Heath D	Dwarf Scrub D	Open Dwarf Scrub D
Mat Plants	Dense Mat Plants	Mat Plants	Open Mat Plants	Very Open Mat Plants
Hummock	Dense Hummock	Mid-dense Hummock	Hummock	Open Hummock
Grass	Grass	Grass	Grass	Grass
Bunch grass >0.5m	Dense Tall Grass	Tall Grass	Open Tall Grass	Very Open Tall Grass
Bunch grass < .5m	Dense Low Grass	Low Grass	Open Low Grass	Very Open Low Grass
Herbaceous spp.	Dense Herbs	Herbs	Open Herbs	Very Open Herbs
Sedges > 0.5m	Dense Tall Sedges	Tall Sedges	Open Tall Sedges	Very Open Tall Sedges
Sedges < 0.5m	Dense Low Sedges	Low Sedges	Open Low Sedges	Very Open Low Sedges
Ferns	Dense ferns	Ferns	Open Ferns	Very Open Ferns
Mosses, liverworts	Dense Mosses	Mosses	Open Mosses	Very Open Mosses

APPENDIX C. MULTIVARIATE ANALYSIS DENDOGRAM

Group average

Resemblance: S17 Bray Curtis similarity



APPENDIX D. DETAILED FLORISTIC COMMUNITY DESCRIPTIONS

Acacia Shrubland1 (Pindan)

Area: 3093 ha

Landscape: flat and gently undulating plains

Substrate: red sandy loam,

Native Species richness (2500m²): 221 (range 11-29)

Plant Cover: 35% (range 25 – 60%)

Weed Frequency: 0.5 (range 0-12)

Vegetation Condition: degraded-poor 56 ha, good 1862 ha, very good 1174.4ha

Structural units:

Low open woodland

Low/Scrub

Heath, low heath

Herbs

Hummock grass

Illustration: Plate 8

Description: Open Low Woodland B (to 4m) of *Dolichandrone heterophylla*, *Erythrophleum chlorostachys* and *Corymbia* sps, emergent over low scrub/scrub to 2m (*Acacia stellaticeps*, *Acacia colei*, *Carissa lanceolata*, *Acacia ancistrocarpa*, *Grevillea pyramidalis*), over a variable groundlayer of low grasses (*Triodia schinzii*, *Cenchrus ciliaris*, *Eragrostis falcata*) and herbs (*Dodonaea coriacea*, *Corchorus parviflorus*, *Triumfetta chaetocarpa*, *Jacksonia aculeata*, *Ptilotus arthrolasius*, *Bonamia rosea*, *Solanum diversiflorum*, *Senna venusta*, *Solanum dioicum*). This community occurs on stony red sandy loams in the Stage 2 study area on a gentle slope leading to Acacia Shrubland A. The community is mostly in good ecological condition with grazing being the most common disturbance.



Plate 8:Acacia Shrubland 1

Acacia Shrubland 2 (Pindan)

Area: 940 ha

Landscape: flat and gently undulating plains

Substrate: red/yellow sandy loams, gravels and rocky outcrops

Species richness (2500 m²): 20.9 (range 10-33)

Plant Cover: 40% (range 10 – 50%)

Weed Frequency: 0.7 (range 0-2)

Vegetation Condition: degraded 273 ha, poor 382 ha, good 284 ha

Structural units:

Low open woodland

Low/Scrub

Heath, low heath

Herbs

Hummock grass

Illustration: Plate 9

Description: Open Low woodland B (to 4m) of *Bauhinia cunninghamii*, *Erythrophleum chlorostachys* and *Dolichandrone heterophylla* over low scrub/scrub to 2m (*Acacia stellaticeps*, *Acacia coleii*, *Carissa lanceolata*, *Acacia ancistrocarpa*, *Acacia sericophylla*, *Grevillea pyramidalis*, *Acacia monticola*), over a variable groundlayer of low grasses (*Triodia schinzii*, *Cenchrus ciliaris*, *Eragrostis falcata*) and herbs (*Corchorus sidoides* subsp. *sidoides*, *Corchorus parviflorus*, *Sida arenicola*, *Bonamia rosea*, *Ptilotus astrolasius*, *Indigofera monophylla*, *Jacksonia aculeata*). This community occurs on red sandy loams in the Stage 3 study area on a gentle slope. The community is mostly in poor ecological condition with grazing being the most common disturbance. Approximately 170 ha was burnt in 2014/2015. *Bonamia oblongifolia* (Priority 3) occurs infrequently in grazed and burnt areas and at the periphery of the community.



Plate 9: Acacia Shrubland 2

Acacia-Melaleuca Shrubland 1

Area: 445 ha

Landscape: flat and gently undulating plains

Substrate: brown and red sandy loam,

Native Species richness (2500m²): 15.8 (range 8-30)

Plant Cover: 30% (range 20 – 50%)

Weed Frequency: 0.5 (range 0-2)

Vegetation Condition: degraded 72ha, poor 233.1ha, good 12ha, very good 127ha

Structural units:

Low open woodland

Low/Scrub

Heath, low heath

Herbs

Hummock grass

Illustration: Plate 10

Description: Low Woodland B (to 6m) of *Melaleuca alsophila* and *Acacia amplicep* over low scrub/scrub to 2m (*Melaleuca glomerata*, *Melaleuca lasiandra*), over a variable groundlayer of low grasses (*Cenchrus ciliaris*, *Triodia epactia*) shrubs and herbs (*Solanum esuriale*, *Pluchea ferdinandi-muelleri*, *Stemodia grossa*, *Pluchea tetrantha*, *Pterocaulon sphacelatum*, *Senna venusta*, *Trianthema turgidifolia*). The community is mostly in poor to good ecological condition with grazing being the most common disturbance.



Plate 10: Melaleuca-Acacia Shrubland 1

Acacia-Melaleuca Shrubland 2

Area: 304ha

Landscape: flat and gently undulating plains

Substrate: brown sandy loam and white clay,

Native Species richness (2500 m²): 17.2 (range 11-24)

Plant Cover: 25% (range 10 – 50%)

Weed Frequency: 0.65 (range 0-1)

Vegetation Condition: degraded 9ha, poor 21 ha, poor-good 273 ha

Structural units:

Low open woodland

Low/Scrub

Heath, low heath

Herbs

Hummock grass

Illustration: Plate 11

Description: Open Low Woodland B/Forest (to 5m) of *Melaleuca alsophila* and *Acacia amplicep* over low scrub/scrub to 2m (*Acacia stellaticeps*, *Acacia coleii*, *Carissa lanceolata*, *Melaleuca glomerata*, *Melaleuca lasiandra*), over a variable groundlayer of low grasses (*Cenchrus ciliaris*, *Triodia epactia*, *Triodia schinzi*) shrubs and herbs (*Solanum esuriale*, *Pluchea ferdinandi-muelleri*, *Stemodia grossa*, *Pluchea tetrantha*, *Pterocaulon sphacelatum*, *Senna venusta*, *Trianthema turgidifolia*). The community is mostly in poor to good ecological condition with grazing being the most common disturbance.



Plate 11: Melaleuca-Acacia Shrubland 2

Pindan Open Woodland/Shrubland 1

Area: 1448 ha

Landscape: flat and gently undulating plains

Substrate: brown sandy loam and white clay,

Native Species richness (2500 m²): 23.2 (range 17-40)

Plant Cover: 25% (range 10 – 50%)

Weed Frequency: 0.5 (range 0-1)

Vegetation Condition: very good 1448 ha

Structural units:

Low open woodland

Low/Scrub

Heath, low heath

Herbs

Hummock grass

Illustration: Plate 12

Description: Very open Low Woodland B 5m) of *Bauhinia cunninghamii*, *Dolichandrone heterophylla* and *Erythrophleum chlorostachys* over low scrub/scrub to 2m (*Acacia ancistrocarpa* *Acacia colei*, *Acacia stellaticeps* and *Carissa lanceolata*), over a variable groundlayer of low grasses (*Eragrostis falcata*, *Triodia schinzii*) shrubs and herbs (*Euphorbia australis*, *Euphorbia drummondii*, *Solanum dioicum*, *Trianthema pilosa*, *Tribulopsis marliesiae* and others). The community is in very good ecological condition with grazing being a minor disturbance.



Plate 12: Pindan Open Woodland/Shrubland 1

Pindan Open Woodland/Shrubland 2

Area: 553 ha

Landscape: flat and gently undulating plains

Substrate: brown sandy loam and white clay,

Native Species richness (2500 m²): 20.2 (range 15-34)

Plant Cover: 30% (range 20 – 50%)

Weed Frequency: 0.65 (range 0-1)

Vegetation Condition: good 163ha, very good 389 ha

Structural units:

Low open woodland

Low/Scrub

Heath, low heath

Herbs

Hummock grass

Illustration: Plate 13

Description: Very open Low Woodland B 5m) of *Owenia reticulata*, *Dolichandrone heterophylla* and *Erythrophleum chlorostachys* over low scrub/scrub to 2m (*Acacia eriopoda* *Acacia coleii*, *Calytrix carinata*, *Gompholobium simplicifolium*, *Grevillea eriostachya*), over a variable groundlayer of low grasses (*Eragrostis falcata*, *Triodia schinzii*) shrubs and herbs (*Euphorbia australis*, *Euphorbia drummondii*, *Evolvulus alsinoides*, *Tribulopsis marliesiae* and others).The community is in good - very good ecological condition with grazing being a minor disturbance.



Plate 13. Pindan Open Woodland/Shrubland 2

Limestone Outcrops

Area: 17.2 ha

Landscape: flat and gently undulating plains

Substrate: shallow skeletal brown sandy loam and white clay over limestone and exposed limestone

Plant Cover: 15% (range 10 – 20%)

Weed Frequency: 1 (range 0-1)

Vegetation Condition: poor 17.2 ha

Structural units:

open low heath

Herbs

Hummock grass

Illustration: Plate 14

Description: Sparsely vegetated. Typical woody shrubs include *Acacia colei* and *A. stellaticeps* while the ground layer consists of grasses (e.g. *Cenchrus ciliaris*, *Triodia* sp.) and herbs (e.g. *Ptilotus axillaris*). The community is mostly in poor condition with grazing and trampling being the most common disturbance.



Plate 14: Limestone Outcrops

Rocky Outcrops – within Acacia Shrublands1 and 2

Area: not determined

Landscape: flat and gently undulating plains

Substrate: shallow red sand loam over rock and exposed rock

Native Species richness (2500 m²): 21.2 (range 16-28)

Plant Cover: 35% (range 15 – 50%)

Weed Frequency: 0.45 (range 0-2)

Vegetation Condition: poor-good

Structural units:

Low open woodland

Low/Scrub

Heath, low heath

Herbs

Illustration: Plate 15

Description: Emergent low trees (to 5m) of *Ficus brachypoda* over a sparse layer of shrubs (*Acacia coleii*, *A. hilliana* and *A. drepanocarpa* to 2m over a variable layer of low grasses (*Cenchrus ciliaris*, *Triodia schinzii*) shrubs, herbs, and climbers (*Gomphrena cunninghamii*, *Goodenia stobbsiana*, *Trachymene oleracea*, *Trichosanthes cucumerina*). This community type occurs within the Acacia Shrublands (1 and 2) and the plant species present include many species in common with the surrounding floristic communities. A number of plant species are confined to the outcrops (e.g. *Ficus brachypoda*, *Trachymene oleracea*). The outcrops vary in size and composition. Some outcrops are simply rocky platforms which rise less than 1m above the surrounding landscape. Other outcrops are tall assemblages of boulders which rise up to 10m above the landscape. Individual outcrops are small in areal extent (mostly < 0.5 ha). The plant communities present are mostly in poor to good ecological condition. Weed invasion is the main disturbance.



Plate 15: Rocky Outcrops

Completely degraded

Vegetation is completely degraded within the irrigation pivots, around stock watering points and when adjacent to agricultural structures (e.g. fence lines, tracks, buildings, see Plate 16). Approximately 808 ha is completely degraded.



Plate 16: Completely degraded vegetation caused by grazing

APPENDIX E. QUADRAT LOCATIONS

2016

Quadrat	Easting	Northing
Q1	187542	7788808
Q2	187881	7788826
Q3	188198	7789240
Q4	188243	7788566
Q5	187737	7788405
Q6	187122	7788944
Q7	186834	7788731
Q8	186580	7788052
Q9	186137	7788187
Q10	186895	7788185
Q11	186931	7787930
Q12	186364	7787784
Q13	186351	7787537
Q14	186562	7787707
Q15	186809	7787735
Q16	187526	7787930
Q17	187975	7788101
Q18	185937	7788020
Q19	185699	7787985
Q20	185471	7788071
Q21	185569	7787804
Q22	186181	7787958
Q23	187367	7787588
Q24	187548	7787211
Q25	187665	7786909

Quadrat	Easting	Northing
Q26	187328	7786787
Q27	186998	7786759
Q28	186780	7787003
Q29	187108	7787177
Q30	186812	7787324
Q31	187046	7787492
Q32	184490	7787186
Q33	184523	7787555
Q34	184926	7787753
Q35	185339	7787832
Q36	185300	7787562
Q37	184941	7787302
Q38	185621	7787557
Q39	185526	7787351
Q40	185891	7787621
Q41	186143	7787647
Q42	187106	7788553
Q43	186723	7788464
Q44	186500	7788332
Q45	186599	7788743
Q46	188759	7789446
Q47	188916	7789227
Q48	189050	7789040
Q49	189164	7788876
Q50	189405	7789002

Quadrat	Easting	Northing
Q51	189631	7789146
Q52	189394	7789209
Q53	189620	7789381
Q54	189334	7789493
Q55	189559	7789669
Q56	189515	7789866
Q57	189146	7789613
Q58	189153	7789330
Q59	188957	7788768
Q60	188736	7788833
Q61	188416	7788858
Q62	188559	7788557
Q63	188323	7788359
Q64	188046	7788450
Q65	188110	7788883
Q66	188017	7789090
Q67	188486	7789284
Q68	188348	7789088
Q69	188672	7789153
Q70	187833	7788999
Q71	187606	7788579
Q72	187222	7788322
Q73	187353	7787987
Q74	178192	7785856
Q75	178360	7785926

Quadrat	Easting	Northing
Q76	178520	7785947
Q77	178238	7786031
Q78	178389	7786188
Q79	178405	7786390
Q80	178503	7786488
Q81	178303	7786500
Q82	178318	7786291
Q83	178235	7786179
Q84	178036	7786207
Q85	177810	7786138
Q86	177797	7785939
Q87	177867	7785810
Q88	178048	7786026
Q89	177966	7785763
Q90	177673	7785611
Q91	177467	7785528
Q92	177469	7785663
Q93	177719	7785753
Q94	177287	7785448
Q95	177067	7785283
Q96	176681	7784974
Q97	176361	7784944
Q98	176149	7784856
Q99	175864	7785042
Q100	175826	7785283
Q101	176133	7785428
Q102	176230	7785109
Q103	176507	7785250
Q104	176338	7785563
Q105	176775	7785396

Quadrat	Easting	Northing
Q106	177102	7785587
Q107	177361	7787572
Q108	177311	7787358
Q109	177626	7787361
Q110	177600	7787584
Q111	178311	7786862
Q112	178364	7786639
Q113	178530	7786637
Q114	178442	7786846
Q115	176780	7787230
Q116	176488	7787145
Q117	176582	7786851
Q118	176478	7786572
Q119	176377	7786366
Q120	176635	7786395
Q121	176870	7786440
Q122	176662	7786635
Q123	176816	7786841
Q124	176852	7787135
Q125	176931	7786170
Q126	176627	7786090
Q127	176340	7786105
Q128	176171	7786066
Q129	176260	7785799
Q130	176620	7785829
Q131	176847	7785701
Q132	177084	7785953
Q133	177072	7787217
Q134	177384	7787210
Q135	177714	7787149

Quadrat	Easting	Northing
Q136	178020	7787089
Q137	178078	7786897
Q138	177867	7786829
Q139	177767	7786994
Q140	177501	7787044
Q141	177204	7787042
Q142	177048	7787016
Q143	177196	7786813
Q144	177427	7786800
Q145	177612	7786804
Q146	177550	7786587
Q147	177222	7786649
Q148	176961	7786697
Q149	177192	7786396
Q150	177482	7786354
Q151	177522	7786114
Q152	177293	7786194
Q153	177329	7785947
Q154	177550	7785867
Q155	177228	7785807
Q156	177935	7786379
Q157	177691	7786400
Q158	177789	7786616
Q159	177956	7786719
Q160	177973	7786548
Q161	178096	7786468
Q162	178108	7786648
Q163	178199	7786820
Q164	178395	7787203
Q165	178158	7787178

Quadrat	Easting	Northing
Q167	178194	7786996
Q166	178376	7786092
Q168	187749	7787981
Q169	187485	7788150

Quadrat	Easting	Northing
Q170	187384	7788491
Q171	187075	7787717
Q172	187275	7787342
Q173	187413	7787059

Quadrat	Easting	Northing
Q174	185909	7787469
Q175	184747	7787206
Q176	184737	7787499

2018

Quadrat	Easting	Northing
Q1	188403	7790783
Q3	188661	7791499
Q4	188917	7790720
Q5	176611	7784479
Q6	176767	7784833
Q7	176989	7784782
Q2	188384	7791225
Q8	188723	7790158
Q9	189004	7790880
Q10	189314	7790864
Q11	191735	7789934
Q12	191100	7789641
Q13	190874	7788982
Q14	190553	7789161
Q15	190789	7790056
Q16	190648	7789962
Q17	189863	7789432
Q18	190059	7789676
Q19	189082	7791062
Q20	189028	7791567

Quadrat	Easting	Northing
Q21	189339	7791910
Q22	189733	7788765
Q22a	189594	7788451
Q23	188944	7788531
Q24	188855	7788242
Q25	190602	7786827
Q26	190542	7787044
Q27	190342	7787068
Q28	189871	7787073
Q29	189781	7787331
Q30	191801	7789071
Q31	191985	7788557
Q32	192098	7788132
Q33	191650	7787885
Q34	191339	7788214
Q35	191624	7788421
Q36	191560	7789422
Q37	190695	7787533
Q38	190553	7788112
Q39	177149	7784933

Quadrat	Easting	Northing
Q40	177439	7785089
Q42	177568	7784810
Q41	191734	7787057
Q43	191559	7787473
Q44	191987	7787630
Q45	192180	7787239
Q46	178408	7785409
Q47	178654	7785154
Q48	178472	7784692
Q49	178111	7785099
Q50	181058	7785719
Q51	181095	7785853
Q52	177952	7785566
Q53	177681	7785326
Q54	188078	7782971
Q55	187914	7783601
Q56	187900	7783861
Q57	187825	7784322
Q58	188226	7784381
Q59	188388	7783947

Quadrat	Easting	Northing
Q60	188314	7783640
Q61	188207	7783301
Q62	188311	7782669
Q63	188522	7782211
Q64	188188	7782238
Q65	187963	7782677
Q66	191671	7783526
Q667	191430	7783687
Q68	191219	7783723
Q69	191160	7783398
Q70	191273	7783269
Q71	186790	7783077
Q72	186670	7783478
Q73	186580	7784149
Q74	186935	7784499
Q75	187275	7784638
Q76	187408	7784336
Q77	187334	7783987
Q78	187374	7783506
Q79	187432	7783217
Q80	186661	7785022
Q81	187007	7784973
Q82	187292	7784986
Q83	189224	7784077
Q84	189304	7784393
Q85	189224	7784790
Q86	188901	7785203
Q88	189533	7785076
Q89	189639	7784679
Q90	189629	7784379

Quadrat	Easting	Northing
Q91	189424	7783508
Q92	189454	7783257
Q93	189623	7783116
Q94	189803	7782839
Q96	189836	7783129
Q97	189796	7783298
Q98	189599	7783623
Q99	188618	7783685
Q100	188663	7783981
Q101	188555	7784611
Q102	188137	7784743
Q103	187825	7784891
Q104	187758	7785134
Q105	188242	7785250
Q106	188548	7785313
Q107	188897	7784765
Q108	188897	7784317
Q109	188881	7783867
Q110	188991	7783066
Q111	189065	7782706
Q112	188836	7782309
Q113	188725	7782750
Q114	188688	7783032
Q115	187487	7782704
Q116	187574	7782446
Q117	187510	7782033
Q118	187183	7782094
Q119	186930	7782414
Q120	187155	7782648
Q121	190639	7784517

Quadrat	Easting	Northing
Q122	190755	7784245
Q123	190841	7783947
Q124	190807	7783506
Q125	190840	7783018
Q126	190931	7782750
Q127	190485	7782726
Q128	190201	7783120
Q129	190176	7783639
Q130	190010	7783978
Q131	190263	7784388
Q132	190150	7784717
Q133	189946	7785001
Q134	189873	7785340
Q135	189807	7785672
Q136	190294	7785835
Q137	190555	7785380
Q138	190684	7785065
Q139	191119	7785515
Q140	191142	7785793
Q141	191296	7786272
Q142	191634	7786031
Q143	191946	7785423
Q144	192004	7784894
Q145	191923	7784500
Q146	191838	7784188
Q147	191312	7784057
Q148	191130	7784558
Q149	191252	7784900
Q150	191467	7785150
Q151	190521	7786608

Quadrat	Easting	Northing
Q152	190013	7786444
Q153	189370	7786091
Q154	189321	7786640
Q155	189768	7786682
Q156	187340	7785777
Q157	187906	7785827
Q158	188549	7785934
Q159	188755	7786141
Q160	188666	7786599
Q161	188061	7786477
Q162	187591	7786342
Q163	186743	7785730
Q164	186491	7785938
Q165	186746	7786223
Q166	187162	7786557
Q167	187707	7786776
Q169	191163	7786937
Q170	191125	7787395
Q168	188130	7787091
Q171	182379	7784117
Q172	181862	7784303
Q173	181541	7784188
Q174	181387	7784648
Q175	181706	7784752
Q176	181904	7784890
Q177	182238	7784794
Q178	182361	7784574
Q179	183090	7784159
Q180	183108	7784522
Q181	177501	7784398

Quadrat	Easting	Northing
Q182	177976	7784540
Q183	177127	7784219
Q184	178311	7786419
Q185	178457	7786109
Q187	186433	7786989
Q188	186361	7786608
Q189	182429	7785370
Q190	182188	7785423
Q191	181867	7785373
Q192	181647	7785562
Q193	181778	7785877
Q194	182256	7785845
Q195	182771	7785629
Q196	183126	7785619
Q197	182064	7786205
Q198	181524	7786012
Q199	181416	7785727
Q200	181122	7785122
Q201	180566	7785083
Q202	180756	7785441
Q203	180323	7785353
Q204	178496	7785741
Q205	179089	7785923
Q206	179199	7785573
Q207	179842	7785701
Q208	179726	7786068
Q209	182998	7786970
Q210	183064	7787144
Q211	183875	7787404
Q212	191355	7790372

Quadrat	Easting	Northing
Q213	188159	7787953
Q214	187907	7787640
Q216	187870	7787403
Q215	191976	7786615
Q217	190765	7786178
Q218	189369	7785591
Q218a	187970	7791263
Q219a	188204	7791918
Q219	185967	7786601
Q220	185841	7786917
Q221	185369	7787098
Q222	183065	7786500
Q223	183033	7785042
Q224	190900	7788463
Q225	190401	7788481
Q226	190274	7788113
Q227	190172	7787559
Q228	189996	7787849
Q229	189307	7787521
Q230	189179	7787014
Q95	189888	7782667
Q87	189149	7785445
Q186	184549	7786833
Q231	179616	7785430
Q232	180715	7786317
Q233	182823	7786206
Q234	183459	7784956
Q235	184185	7786751
Q236	188429	7789595
Q237	189488	7790144

Quadrat	Easting	Northing
Q238	189540	7791241
Q239	188573	7787556

Quadrat	Easting	Northing
Q240	191685	7783044

APPENDIX F. FLORISTIC DATA

2016

name	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12	q13	q14	q15	q16
<i>Abutilon indicum</i>		1				1	1						1			
<i>Abutilon otocarpum</i>	1	1	1	1		1	1									
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1	1	1	1	1	1	1	1	1	1			1	1	1	1
<i>Acacia coleii</i>	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
<i>Acacia dictyophleba</i>							1			1						1
<i>Acacia tumida</i>	1	1		1			1	1								
<i>Acacia hilliana</i>	1				1						1					
<i>Acacia monticola</i>						1										1
<i>Acacia ptychophylla</i>																
<i>Acacia sericophylla</i>	1		1	1		1	1	1				1	1	1	1	
<i>Acacia stellaticeps</i>	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1
<i>Aerva javanica</i>	1	1					1					1				
<i>Amaranthus undulatus</i>																
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>	1	1	1	1		1	1		1			1		1		1
<i>Bonamia alatisemina</i>									1		1			1	1	
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>	1	1								1	1	1	1	1		1
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>	1	1	1			1	1	1				1				
<i>Cassytha filiformis</i>		1	1									1			1	1
<i>Cenchrus ciliaris</i>	1		1						1							
<i>Cleome uncifera</i>																
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>		1	1	1		1					1					
<i>Corchorus sidoides subsp. sidoides</i>							1			1	1	1	1	1	1	1

name	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12	q13	q14	q15	q16
<i>Corymbia hammerslayana</i>													1			1
<i>Corymbia zygophylla</i>																
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>																
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>										1						
<i>Dolichandrone heterophylla</i>					1		1	1			1		1		1	
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>			1													
<i>Eragrostis falcata</i>	1	1			1		1	1	1			1	1			
<i>Erythrophleum chlorostachys</i>					1				1	1	1					1
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>			1													
<i>Euphorbia drummondii</i>																
<i>Evolvulus alsinoides</i>																
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>								1			1			1	1	
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>		1			1						1				1	1
<i>Heliotropium vestitum</i>								1							1	
<i>Hemichroa diandra</i>																
<i>Hybanthus aurantiacus</i>										1			1	1		1
<i>Indigofera colutea</i>																
<i>Indigofera linnaei</i>																
<i>Indigofera monophylla</i>	1	1		1	1	1	1						1	1		1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>								1	1				1	1	1	1
<i>Seringia velutina</i>							1									1
<i>Leptosema anomalum</i>														1		
<i>Melaleuca alsophila</i>																
<i>Melaleuca lasiandra</i>												1		1		
<i>Mollugo molluginea</i>																
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>																
<i>Panicum decompositum</i>																

name	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12	q13	q14	q15	q16
<i>Persoonia falcata</i>	1															
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>																
<i>Pterocaulon sphacelatum</i>																
<i>Ptilotus arthrolasius</i>			1													
<i>Ptilotus astrolasius</i>	1	1		1	1		1	1	1	1	1	1				
<i>Ptilotus calostachyus</i>																
<i>Ptilotus chamaecladus</i>																
<i>Ptilotus clementii</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola collaris</i>																
<i>Senna curvistyla</i>									1							
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>		1		1			1								1	1
<i>Senna venusta</i>													1			
<i>Sida arenicola</i>			1	1						1						
<i>Sida calyxhymenia</i>			1													
<i>Solanum dioicum</i>																
<i>Solanum diversiflorum</i>			1	1												
<i>Solanum esuriale</i>													1	1	1	
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>												1	1			
<i>Stylobasium australe</i>															1	
<i>Tephrosia leptoclada</i>																
<i>Trianthema pilosa</i>			1													
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Trichodesma zeylandica</i>					1							1		1		
<i>Triodia epactia</i>			1													
<i>Triodia schinzii</i>	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																

name	q17	q18	q19	q20	q21	q22	q23	q24	q25	q26	q27	q28	q29	q30	q31	q32

name	q17	q18	q19	q20	q21	q22	q23	q24	q25	q26	q27	q28	q29	q30	q31	q32
<i>Abutilon indicum</i>	1	1		1												
<i>Abutilon otocarpum</i>																
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1	1	1		1	1	1	1			1	1		1	1	1
<i>Acacia colei</i>	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1
<i>Acacia dictyophleba</i>							1		1	1			1		1	1
<i>Acacia tumida</i>							1									
<i>Acacia hilliana</i>												1			1	
<i>Acacia monticola</i>	1						1			1	1					
<i>Acacia ptychophylla</i>					1			1			1		1			
<i>Acacia sericophylla</i>	1			1		1	1	1	1	1	1	1	1		1	1
<i>Acacia stellaticeps</i>			1	1	1	1	1	1	1	1	1		1			1
<i>Aerva javanica</i>	1															
<i>Amaranthus undulatus</i>																
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>		1		1		1										
<i>Bonamia alatisemina</i>		1	1	1		1									1	
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>	1	1	1			1	1		1	1	1				1	
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>	1						1			1						
<i>Capparis umbonata</i>						1										
<i>Carissa lanceolata</i>		1	1	1		1		1								
<i>Cassytha filiformis</i>						1										
<i>Cenchrus ciliaris</i>		1		1							1					
<i>Cleome uncifera</i>																
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>																
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>		1	1		1	1						1		1		1
<i>Corymbia hammerslayana</i>	1			1					1	1		1	1	1		
<i>Corymbia zygophylla</i>					1											1
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>		1				1										
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>						1		1								
<i>Dolichandrone heterophylla</i>		1				1			1		1	1	1			
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>				1												
<i>Eragrostis falcata</i>		1		1	1	1								1	1	

name	q17	q18	q19	q20	q21	q22	q23	q24	q25	q26	q27	q28	q29	q30	q31	q32
<i>Erythrophleum chlorostachys</i>							1		1	1	1			1		1
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>		1														
<i>Euphorbia drummondii</i>																
<i>Evolvulus alsinoides</i>			1													
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>													1	1		
<i>Grevillea pyramidalis</i>							1	1	1	1	1		1		1	
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>							1	1		1	1		1	1	1	
<i>Heliotropium vestitum</i>										1						
<i>Hemichroa diandra</i>																
<i>Hybanthus aurantiacus</i>	1			1		1			1				1			
<i>Indigofera colutea</i>																
<i>Indigofera linnaei</i>																
<i>Indigofera monophylla</i>		1	1		1							1				1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>												1	1	1		1
<i>Jacksonia aculeata</i>		1					1	1	1	1			1	1	1	
<i>Seringia velutina</i>		1	1	1	1	1			1							
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca lasiandra</i>		1	1			1										
<i>Mollugo molluginea</i>		1														
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>																
<i>Panicum decompositum</i>												1				
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>		1														
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>		1										1				
<i>Pterocaulon sphacelatum</i>																
<i>Ptilotus arthrolasius</i>																

name	q17	q18	q19	q20	q21	q22	q23	q24	q25	q26	q27	q28	q29	q30	q31	q32
<i>Ptilotus astrolasius</i>	1		1			1	1	1	1	1	1	1	1	1	1	1
<i>Ptilotus calostachyus</i>												1				
<i>Ptilotus chamaecladus</i>																
<i>Ptilotus clementii</i>		1														
<i>Rhynchosia minima</i>														1		
<i>Santalum lanceolatum</i>																
<i>Scaevola collaris</i>																
<i>Senna curvistyla</i>																
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>									1		1					
<i>Senna venusta</i>		1														
<i>Sida arenicola</i>								1	1	1						1
<i>Sida calyxhymenia</i>																
<i>Solanum dioicum</i>		1		1					1	1				1		1
<i>Solanum diversiflorum</i>																
<i>Solanum esuriale</i>				1												
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>		1	1									1				
<i>Tephrosia leptoclada</i>		1										1				
<i>Trianthema pilosa</i>																
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Trichodesma zeylandica</i>																
<i>Triodia epactia</i>														1		
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																

name	q33	q34	q35	q36	q37	q38	q39	q40	q41	q42	q43	q44	q45	q46	q47	q48
<i>Abutilon indicum</i>	1												1	1	1	
<i>Abutilon otocarpum</i>																
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>		1	1	1	1	1	1	1	1	1	1	1	1			1
<i>Acacia colei</i>	1	1	1	1	1	1	1	1	1		1		1	1	1	1
<i>Acacia dictyophleba</i>																
<i>Acacia tumida</i>													1			1
<i>Acacia hilliana</i>									1	1						
<i>Acacia monticola</i>					1		1			1						
<i>Acacia ptychophylla</i>	1							1			1					
<i>Acacia sericophylla</i>	1				1	1	1	1		1		1				1
<i>Acacia stellaticeps</i>	1	1	1			1		1			1	1	1	1	1	1
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>	1			1												
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>	1	1			1		1		1		1		1		1	1
<i>Bonamia alatisemina</i>					1				1					1		
<i>Bonamia oblongifolia</i>														1		
<i>Bonamia rosea</i>	1					1	1	1		1	1	1				1
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																1
<i>Carissa lanceolata</i>	1				1	1						1	1	1	1	
<i>Cassytha filiformis</i>												1				
<i>Cenchrus ciliaris</i>	1	1				1		1					1	1		
<i>Cleome uncifera</i>																
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>	1													1		1
<i>Corchorus sidoides subsp. sidoides</i>	1	1		1		1		1	1	1	1	1	1	1	1	
<i>Corymbia hammerslayana</i>				1												
<i>Corymbia zygophylla</i>	1						1									
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>															1	
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>												1				
<i>Dolichandrone heterophylla</i>	1										1	1				1
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>								1				1			1	

name	q33	q34	q35	q36	q37	q38	q39	q40	q41	q42	q43	q44	q45	q46	q47	q48
<i>Eragrostis falcata</i>				1	1	1		1	1	1	1		1	1		1
<i>Erythrophleum chlorostachys</i>					1		1			1		1				
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>																
<i>Euphorbia drummondii</i>																
<i>Evolvulus alsinoides</i>		1									1					1
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>										1	1	1				
<i>Grevillea refracta</i>												1				
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>																1
<i>Heliotropium vestitum</i>											1	1				
<i>Hemichroa diandra</i>																
<i>Hybanthus aurantiacus</i>	1		1			1	1		1		1	1				
<i>Indigofera colutea</i>																
<i>Indigofera linnaei</i>																
<i>Indigofera monophylla</i>	1		1			1		1	1	1	1	1				
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>	1															
<i>Jacksonia aculeata</i>				1		1			1		1					
<i>Seringia velutina</i>											1					
<i>Leptosema anomalum</i>				1		1			1							
<i>Melaleuca alsophila</i>																
<i>Melaleuca lasiandra</i>																
<i>Mollugo molluginea</i>																
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>																
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>			1													
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>																
<i>Pterocaulon sphacelatum</i>																

name	q33	q34	q35	q36	q37	q38	q39	q40	q41	q42	q43	q44	q45	q46	q47	q48
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>		1				1				1	1	1	1		1	1
<i>Ptilotus calostachyus</i>						1	1									
<i>Ptilotus chamaecladus</i>																
<i>Ptilotus clementii</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																1
<i>Scaevola collaris</i>																
<i>Senna curvistyla</i>																
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>							1	1		1						
<i>Senna venusta</i>														1	1	
<i>Sida arenicola</i>	1	1	1	1	1	1		1	1	1	1	1				
<i>Sida calyxhymentia</i>												1		1		
<i>Solanum dioicum</i>	1			1					1		1					
<i>Solanum diversiflorum</i>														1	1	
<i>Solanum esuriale</i>														1		
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>											1					
<i>Stylobasium australe</i>										1				1	1	
<i>Tephrosia leptoclada</i>																
<i>Trianthema pilosa</i>														1		
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Trichodesma zeylandica</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																

name	q49	q50	q51	q52	q53	q54	q55	q56	q57	q58	q59	q60	q61	q62	q63	q64
<i>Abutilon indicum</i>	1						1			1				1		
<i>Abutilon otocarpum</i>							1	1	1	1			1	1		1
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1
<i>Acacia coleii</i>	1	1	1	1	1		1	1	1	1	1	1	1	1		1
<i>Acacia dictyophleba</i>																
<i>Acacia tumida</i>																
<i>Acacia hilliana</i>												1	1			
<i>Acacia monticola</i>														1	1	1
<i>Acacia ptychophylla</i>		1		1						1	1	1	1			
<i>Acacia sericophylla</i>	1	1	1		1	1	1			1	1	1		1		
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
<i>Aerva javanica</i>		1						1			1		1			
<i>Amaranthus undulatus</i>																
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>	1	1	1		1	1		1	1	1	1	1	1	1	1	1
<i>Bonamia alatisemina</i>																
<i>Bonamia oblongifolia</i>			1						1						1	
<i>Bonamia rosea</i>	1	1	1	1	1	1	1				1	1	1	1	1	1
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>										1						
<i>Carissa lanceolata</i>	1	1			1	1	1		1		1	1	1	1		
<i>Cassipoupa filiformis</i>												1	1			
<i>Cenchrus ciliaris</i>		1		1	1			1	1		1		1	1		
<i>Cleome uncifera</i>																
<i>Codonocarpus cotinifolius</i>						1										
<i>Corchorus parviflorus</i>		1						1			1		1			
<i>Corchorus sidoides subsp. sidoides</i>	1	1	1	1	1		1		1	1	1	1		1	1	1
<i>Corymbia hamerslayana</i>																
<i>Corymbia zygophylla</i>																
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>						1	1		1							
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>			1													
<i>Dolichandrone heterophylla</i>	1	1					1			1		1				
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>								1	1							

name	q49	q50	q51	q52	q53	q54	q55	q56	q57	q58	q59	q60	q61	q62	q63	q64
<i>Eragrostis falcata</i>		1	1	1			1	1	1	1	1	1	1			
<i>Erythrophleum chlorostachys</i>			1											1		
<i>Eulalia aurea</i>									1							
<i>Euphorbia australis</i>																
<i>Euphorbia drummondii</i>																
<i>Evolvulus alsinoides</i>		1	1			1		1	1	1						
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>		1	1				1			1	1		1			
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>																1
<i>Heliotropium vestitum</i>																
<i>Hemichroa diandra</i>																
<i>Hybanthus aurantiacus</i>		1			1					1						1
<i>Indigofera colutea</i>																
<i>Indigofera linnaei</i>																
<i>Indigofera monophylla</i>	1			1											1	1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>								1			1		1			
<i>Jacksonia aculeata</i>	1	1														
<i>Seringia velutina</i>			1	1		1		1								
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca lasiandra</i>																
<i>Mollugo molluginea</i>																
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>																
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>																
<i>Pterocaulon sphacelatum</i>																

name	q49	q50	q51	q52	q53	q54	q55	q56	q57	q58	q59	q60	q61	q62	q63	q64
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>	1	1		1	1	1	1			1	1	1	1	1		1
<i>Ptilotus calostachyus</i>						1										
<i>Ptilotus chamaecladus</i>																
<i>Ptilotus clementii</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>								1								
<i>Scaevola collaris</i>												1				
<i>Senna curvistyla</i>				1												
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>		1	1								1					1
<i>Senna venusta</i>																
<i>Sida arenicola</i>				1							1					1
<i>Sida calyxhymentia</i>									1							
<i>Solanum dioicum</i>			1													
<i>Solanum diversiflorum</i>		1			1									1		
<i>Solanum esuriale</i>											1					
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>						1										
<i>Stylobasium australe</i>						1				1		1				
<i>Tephrosia leptoclada</i>					1											
<i>Trianthema pilosa</i>																
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Trichodesma zeylandica</i>																1
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																

name	q65	q66	q67	q68	q69	q70	q71	q72	q73	q74	q75	q76	q77	q78	q79	q80
<i>Abutilon indicum</i>	1	1	1		1	1								1		
<i>Abutilon otocarpum</i>	1	1	1									1	1	1		
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>							1	1	1	1	1	1				
<i>Acacia coleii</i>	1		1		1			1	1	1	1	1	1	1		1
<i>Acacia dictyophleba</i>																
<i>Acacia tumida</i>																
<i>Acacia hilliana</i>							1	1								
<i>Acacia monticola</i>							1	1	1		1					
<i>Acacia ptychophylla</i>	1								1			1				
<i>Acacia sericophylla</i>	1						1	1	1	1	1	1				
<i>Acacia stellaticeps</i>	1	1	1	1	1	1		1		1		1	1	1	1	1
<i>Aerva javanica</i>	1	1			1	1										
<i>Amaranthus undulatus</i>												1				
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>	1	1	1	1	1	1			1	1	1	1	1	1		
<i>Bonamia alatisemina</i>													1	1	1	
<i>Bonamia oblongifolia</i>		1														
<i>Bonamia rosea</i>						1	1	1	1	1	1	1	1	1		
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>	1												1	1		
<i>Carissa lanceolata</i>	1		1		1	1				1		1	1	1	1	1
<i>Cassythia filiformis</i>					1					1						
<i>Cenchrus ciliaris</i>	1	1	1	1	1	1				1		1	1	1	1	1
<i>Cleome uncifera</i>																
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>	1	1	1	1												
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>				1		1	1			1	1	1		1	1	
<i>Corymbia hamerslayana</i>									1							
<i>Corymbia zygophylla</i>																
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>		1			1											
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>											1					
<i>Dolichandrone heterophylla</i>										1	1	1	1			
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>						1										

name	q65	q66	q67	q68	q69	q70	q71	q72	q73	q74	q75	q76	q77	q78	q79	q80
<i>Eragrostis falcata</i>		1		1	1	1				1		1		1	1	1
<i>Erythrophleum chlorostachys</i>								1								
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>		1														
<i>Euphorbia drummondii</i>																
<i>Evolvulus alsinoides</i>	1	1		1												
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>										1						
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>							1									
<i>Hakea macrocarpa</i>							1	1	1	1	1	1				
<i>Heliotropium vestitum</i>																
<i>Hemichroa diandra</i>																
<i>Hybanthus aurantiacus</i>									1							
<i>Indigofera colutea</i>																
<i>Indigofera linnaei</i>																
<i>Indigofera monophylla</i>							1		1		1	1				
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>									1							
<i>Seringia velutina</i>	1										1					
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca lasiandra</i>		1				1								1	1	1
<i>Mollugo molluginea</i>																
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>																
<i>Panicum decompositum</i>		1														
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																
<i>Pluchea tetrantha</i>															1	
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>																
<i>Pterocaulon sphacelatum</i>																

name	q65	q66	q67	q68	q69	q70	q71	q72	q73	q74	q75	q76	q77	q78	q79	q80
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>									1							
<i>Ptilotus calostachyus</i>																
<i>Ptilotus chamaecladus</i>																
<i>Ptilotus clementii</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola collaris</i>	1			1												
<i>Senna curvistyla</i>																
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>	1	1				1	1				1	1				
<i>Senna venusta</i>		1	1		1								1		1	
<i>Sida arenicola</i>		1		1											1	
<i>Sida calyxhymentia</i>		1	1	1	1	1									1	
<i>Solanum dioicum</i>	1								1							
<i>Solanum diversiflorum</i>		1	1	1		1								1		
<i>Solanum esuriale</i>			1	1												
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>				1	1											
<i>Tephrosia leptoclada</i>																
<i>Trianthema pilosa</i>																
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Trichodesma zeylandica</i>																
<i>Triodia epactia</i>		1	1	1												1
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																

name	q81	q82	q83	q84	q85	q86	q87	q88	q89	q90	q91	q92	q93	q94	q95	q96
<i>Abutilon indicum</i>		1	1	1	1	1		1		1					1	
<i>Abutilon otocarpum</i>																
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>									1				1	1		1
<i>Acacia coleii</i>	1					1	1	1		1	1	1	1	1	1	
<i>Acacia dictyophleba</i>											1					
<i>Acacia tumida</i>																
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>																
<i>Acacia ptychophylla</i>									1		1					
<i>Acacia sericophylla</i>									1		1			1		
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>				1												
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>			1		1	1		1	1	1		1	1	1		1
<i>Bonamia alatisemina</i>			1	1		1	1	1		1		1	1	1	1	1
<i>Bonamia oblongifolia</i>			1	1				1								
<i>Bonamia rosea</i>									1	1	1	1	1	1		1
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>			1			1										
<i>Carissa lanceolata</i>	1		1	1	1	1	1		1	1		1	1	1	1	
<i>Cassytha filiformis</i>																
<i>Cenchrus ciliaris</i>	1	1	1	1	1	1		1	1		1	1	1		1	
<i>Cleome uncifera</i>															1	1
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>			1	1	1		1	1		1		1	1	1	1	1
<i>Corchorus sidoides subsp. sidoides</i>	1	1	1	1	1	1	1	1		1			1		1	1
<i>Corymbia hamerslayana</i>																
<i>Corymbia zygophylla</i>																
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>				1										1		
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>						1				1		1	1			
<i>Dolichandrone heterophylla</i>									1			1	1			1
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>		1	1	1	1	1	1	1	1				1	1	1	

name	q81	q82	q83	q84	q85	q86	q87	q88	q89	q90	q91	q92	q93	q94	q95	q96
<i>Eragrostis falcata</i>		1	1	1	1	1	1	1			1	1	1	1	1	1
<i>Erythropileum chlorostachys</i>																1
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>		1	1	1				1								1
<i>Euphorbia drummondii</i>																
<i>Evolvulus alsinoides</i>		1	1	1		1		1		1		1			1	1
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>							1		1		1					1
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>							1									
<i>Heliotropium vestitum</i>																
<i>Hemichroa diandra</i>																
<i>Hybanthus aurantiacus</i>																
<i>Indigofera colutea</i>				1												
<i>Indigofera linnaei</i>																
<i>Indigofera monophylla</i>																
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>															1	
<i>Jacksonia aculeata</i>														1		1
<i>Seringia velutina</i>		1														1
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca lasiandra</i>		1		1	1					1				1	1	
<i>Mollugo molluginea</i>			1													
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>																
<i>Panicum decompositum</i>			1													
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>		1														
<i>Pluchea tetrantha</i>		1														
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>		1	1	1		1		1								
<i>Portulaca pilosa</i>		1	1													
<i>Pterocaulon sphacelatum</i>																

name	q81	q82	q83	q84	q85	q86	q87	q88	q89	q90	q91	q92	q93	q94	q95	q96
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>									1	1				1		
<i>Ptilotus calostachyus</i>		1														
<i>Ptilotus chamaecladus</i>	1	1		1												
<i>Ptilotus clementii</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>				1					1				1			
<i>Scaevola collaris</i>									1							
<i>Senna curvistyla</i>																
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>																1
<i>Senna venusta</i>	1	1	1	1			1	1				1			1	1
<i>Sida arenicola</i>		1	1			1			1						1	
<i>Sida calyxhymentia</i>		1		1	1											1
<i>Solanum dioicum</i>												1				
<i>Solanum diversiflorum</i>		1		1												1
<i>Solanum esuriale</i>	1	1				1		1								
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>	1															
<i>Streptoglossa tenuiflora</i>																1
<i>Stylobasium australe</i>				1			1		1	1	1					
<i>Tephrosia leptoclada</i>																
<i>Trianthema pilosa</i>		1	1	1				1							1	
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Trichodesma zeylandica</i>																
<i>Triodia epactia</i>	1		1													
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																

name	q97	q98	q99	q100	q101	q102	q103	q104	q105	q106	q107	q108	q109	q110	q111	q112
<i>Abutilon indicum</i>													1	1		
<i>Abutilon otocarpum</i>					1			1	1			1				
<i>Acacia ampliceps</i>															1	
<i>Acacia ancistrocarpa</i>	1	1														
<i>Acacia coleii</i>	1	1	1		1						1	1	1		1	1
<i>Acacia dictyophleba</i>																
<i>Acacia tumida</i>																
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>																
<i>Acacia ptychophylla</i>																
<i>Acacia sericophylla</i>	1	1	1													
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1			1	1	1	1	1	1
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>												1				
<i>Aristida inaequiglumis</i>												1				
<i>Bauhinia cunninghamii</i>	1	1	1	1						1	1	1	1	1		
<i>Bonamia alatisemina</i>			1	1		1	1	1	1	1	1	1	1	1		1
<i>Bonamia oblongifolia</i>						1	1								1	
<i>Bonamia rosea</i>	1	1	1	1	1	1					1				1	
<i>Calandrinia strophiolata</i>				1				1	1	1						
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>		1		1		1			1	1		1	1	1	1	1
<i>Cassytha filiformis</i>																
<i>Cenchrus ciliaris</i>				1	1				1	1		1	1	1	1	1
<i>Cleome uncifera</i>		1		1	1		1	1	1	1						
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>		1	1	1	1			1			1	1	1	1		1
<i>Corchorus sidoides subsp. sidoides</i>			1	1		1	1	1	1	1		1		1		1
<i>Corymbia hamerslayana</i>																
<i>Corymbia zygophylla</i>																
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>																
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>	1															
<i>Dolichandrone heterophylla</i>	1		1	1	1	1	1		1	1	1					
<i>Duboisia hopwoodii</i>		1	1				1									
<i>Enneapogon purpurascens</i>					1			1	1	1	1	1	1	1		

name	q97	q98	q99	q100	q101	q102	q103	q104	q105	q106	q107	q108	q109	q110	q111	q112
<i>Eragrostis falcata</i>		1			1	1			1	1	1	1	1	1		
<i>Erythrophleum chlorostachys</i>																
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>							1	1								
<i>Euphorbia drummondii</i>			1	1	1		1		1	1				1		
<i>Evolvulus alsinoides</i>		1	1		1	1	1	1					1			1
<i>Goodenia azurea</i>											1					
<i>Goodenia microptera</i>														1	1	
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>	1	1									1			1		
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>																
<i>Heliotropium vestitum</i>																
<i>Hemichroa diandra</i>											1					
<i>Hybanthus aurantiacus</i>			1									1	1	1		
<i>Indigofera colutea</i>																
<i>Indigofera linnaei</i>									1							
<i>Indigofera monophylla</i>																
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>	1			1							1					
<i>Jacksonia aculeata</i>	1	1														
<i>Seringia velutina</i>			1						1							
<i>Leptosema anomalum</i>	1	1														
<i>Melaleuca alsophila</i>															1	1
<i>Melaleuca lasiandra</i>					1		1	1	1	1					1	1
<i>Mollugo molluginea</i>										1						
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>			1													
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>									1						1	1
<i>Pluchea tetrantha</i>																1
<i>Polymeria ambigua</i>											1	1		1		
<i>Portulaca oleracea</i>						1			1							
<i>Portulaca pilosa</i>													1	1		
<i>Pterocaulon sphacelatum</i>															1	

name	q97	q98	q99	q100	q101	q102	q103	q104	q105	q106	q107	q108	q109	q110	q111	q112
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>			1		1									1		
<i>Ptilotus calostachyus</i>																
<i>Ptilotus chamaecladus</i>														1		
<i>Ptilotus clementii</i>						1										
<i>Rhynchosia minima</i>														1		
<i>Santalum lanceolatum</i>																
<i>Scaevola collaris</i>		1														
<i>Senna curvistyla</i>				1						1						
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>																
<i>Senna venusta</i>		1	1	1	1	1	1	1	1	1		1	1	1		1
<i>Sida arenicola</i>		1		1	1	1	1	1	1	1		1	1			
<i>Sida calyxhymentia</i>			1				1		1							
<i>Solanum dioicum</i>		1					1		1		1			1		
<i>Solanum diversiflorum</i>					1		1	1	1	1				1		1
<i>Solanum esuriale</i>										1					1	1
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>																1
<i>Streptoglossa tenuiflora</i>	1									1						
<i>Stylobasium australe</i>	1				1	1										
<i>Tephrosia leptoclada</i>								1								
<i>Trianthema pilosa</i>		1					1		1			1	1	1		
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																1
<i>Trichodesma zeylandica</i>																
<i>Triodia epactia</i>															1	1
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
<i>Triumfetta chaetocarpa</i>											1	1	1			

name	q113	q114	q115	q116	q117	q118	q119	q120	q121	q122	q123	q124	q125	q126	q127	q128
<i>Abutilon indicum</i>															1	
<i>Abutilon otocarpum</i>						1	1	1			1				1	
<i>Acacia ampliceps</i>		1														1
<i>Acacia ancistrocarpa</i>																
<i>Acacia coleii</i>	1		1													
<i>Acacia dictyophleba</i>																
<i>Acacia tumida</i>																
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>																
<i>Acacia ptychophylla</i>																
<i>Acacia sericophylla</i>									1							
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Aerva javanica</i>	1															
<i>Amaranthus undulatus</i>																
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>			1						1		1					
<i>Bonamia alatisemina</i>			1	1	1	1		1	1	1	1		1	1	1	
<i>Bonamia oblongifolia</i>						1										
<i>Bonamia rosea</i>								1	1		1	1				
<i>Calandrinia strophiolata</i>				1	1	1		1	1	1	1		1		1	
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>		1	1				1						1			
<i>Cassytha filiformis</i>																
<i>Cenchrus ciliaris</i>	1	1		1	1		1	1	1							1
<i>Cleome uncifera</i>			1			1		1		1			1	1		
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>			1				1				1					
<i>Corchorus sidoides subsp. sidoides</i>			1		1	1	1	1	1	1			1	1	1	
<i>Corymbia hamerslayana</i>																
<i>Corymbia zygophylla</i>																
<i>Corynotheca micrantha</i>			1		1							1				
<i>Cucumis variabilis</i>																
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>																
<i>Dolichandrone heterophylla</i>			1		1				1	1	1	1				
<i>Duboisia hopwoodii</i>										1						
<i>Enneapogon purpurascens</i>						1	1		1		1		1	1	1	

name	q113	q114	q115	q116	q117	q118	q119	q120	q121	q122	q123	q124	q125	q126	q127	q128
<i>Eragrostis falcata</i>					1						1		1	1		
<i>Erythrophleum chlorostachys</i>																
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>			1	1		1			1	1				1		
<i>Euphorbia drummondii</i>			1	1	1	1	1	1	1	1	1		1	1	1	
<i>Evolvulus alsinoides</i>								1	1	1	1		1	1		
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>									1	1	1	1				
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>											1					
<i>Heliotropium vestitum</i>					1	1		1	1	1	1			1		
<i>Hemichroa diandra</i>	1	1														
<i>Hybanthus aurantiacus</i>			1		1				1				1			
<i>Indigofera colutea</i>																
<i>Indigofera linnaei</i>				1									1			
<i>Indigofera monophylla</i>																
<i>Indigofera oblongifolia</i>				1									1			
<i>Ipomoea muelleri</i>										1	1					1
<i>Jacksonia aculeata</i>						1		1	1	1	1	1				
<i>Seringia velutina</i>			1													
<i>Leptosema anomalum</i>					1			1	1	1	1					
<i>Melaleuca alsophila</i>		1		1												
<i>Melaleuca lasiandra</i>		1				1		1					1	1	1	1
<i>Mollugo molluginea</i>																
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>												1				
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>	1	1					1									
<i>Pluchea ferdinandi-muelleri</i>	1	1		1			1								1	1
<i>Pluchea tetrantha</i>	1	1		1			1									
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>													1	1		
<i>Portulaca pilosa</i>																
<i>Pterocaulon sphacelatum</i>																

name	q113	q114	q115	q116	q117	q118	q119	q120	q121	q122	q123	q124	q125	q126	q127	q128
<i>Ptilotus arthrolasius</i>					1	1				1		1				
<i>Ptilotus astrolasius</i>								1	1							
<i>Ptilotus calostachyus</i>																
<i>Ptilotus chamaecladus</i>															1	
<i>Ptilotus clementii</i>																
<i>Rhynchosia minima</i>				1											1	
<i>Santalum lanceolatum</i>																
<i>Scaevola collaris</i>																
<i>Senna curvistyla</i>					2											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>					1	1										
<i>Senna venusta</i>			1	1	1	1	1	1	1	1	1		1	1	1	
<i>Sida arenicola</i>			1		1	1	1		1	1		1	1	1		
<i>Sida calyxhymentia</i>								1	1						1	
<i>Solanum dioicum</i>					1			1		1						
<i>Solanum diversiflorum</i>			1		1	1	1	1	1	1		1			1	
<i>Solanum esuriale</i>			1	1			1								1	1
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>		1		1												
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>					1					1	1	1				
<i>Tephrosia leptoclada</i>			1		1	1		1		1			1	1		
<i>Trianthema pilosa</i>			1		1					1						
<i>Trianthema triquetra</i>	1	1														
<i>Trianthema turgidifolia</i>		1														1
<i>Trichodesma zeylandica</i>																
<i>Triodia epactia</i>	1	1					1								1	1
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>			1													

name	q129	q130	q131	q132	q133	q134	q135	q136	q137	q138	q139	q140	q141	q142	q143	q144
<i>Abutilon indicum</i>			1				1									
<i>Abutilon otocarpum</i>																
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>					1											
<i>Acacia colei</i>			1				1	1		1	1	1				1
<i>Acacia dictyophleba</i>																
<i>Acacia tumida</i>																
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>																
<i>Acacia ptychophylla</i>												1			1	
<i>Acacia sericophylla</i>												1				1
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>							1									
<i>Aristida inaequiglumis</i>											1					
<i>Bauhinia cunninghamii</i>				1												1
<i>Bonamia alatisemina</i>	1	1	1	1	1	1	1	1		1	1	1	1		1	1
<i>Bonamia oblongifolia</i>								1								
<i>Bonamia rosea</i>					1	1	1				1	1	1	1	1	
<i>Calandrinia strophiolata</i>	1	1	1													
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>				1	1	1	1	1	1	1	1					
<i>Cassytha filiformis</i>					1											
<i>Cenchrus ciliaris</i>			1		1	1	1	1	1					1	1	1
<i>Cleome uncifera</i>	1	1	1			1										
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>	1				1	1	1	1	1	1	1	1	1	1	1	1
<i>Corchorus sidoides subsp. sidoides</i>	1	1	1	1			1		1	1	1	1				1
<i>Corymbia hammerslayana</i>																
<i>Corymbia zygophylla</i>																
<i>Corynotheca micrantha</i>					1								1	1		
<i>Cucumis variabilis</i>			1													
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>						1					1	1	1		1	1
<i>Dolichandrone heterophylla</i>	1		1				1				1	1	1	1	1	1

name	q129	q130	q131	q132	q133	q134	q135	q136	q137	q138	q139	q140	q141	q142	q143	q144
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>	1	1	1	1	1	1	1	1	1				1	1	1	
<i>Eragrostis falcata</i>	1	1	1		1		1			1	1	1			1	
<i>Erythrophleum chlorostachys</i>																
<i>Eulalia aurea</i>											1					
<i>Euphorbia australis</i>			1							1						
<i>Euphorbia drummondii</i>	1	1	1	1												
<i>Evolvulus alsinoides</i>		1	1			1	1				1	1			1	1
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>													1			
<i>Grevillea pyramidalis</i>							1				1			1		1
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>							1									1
<i>Heliotropium vestitum</i>																
<i>Hemichroa diandra</i>									1							
<i>Hybanthus aurantiacus</i>					1	1	1	1				1	1	1		
<i>Indigofera colutea</i>										1						
<i>Indigofera linnaei</i>																
<i>Indigofera monophylla</i>													1			
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>						1									1	1
<i>Jacksonia aculeata</i>																
<i>Seringia velutina</i>																
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>										1	1					
<i>Melaleuca lasiandra</i>	1		1	1						1					1	
<i>Mollugo molluginea</i>														1		
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>						1										
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>	1															
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>	1		1					1					1			

name	q129	q130	q131	q132	q133	q134	q135	q136	q137	q138	q139	q140	q141	q142	q143	q144
<i>Portulaca pilosa</i>							1	1								
<i>Pterocaulon sphacelatum</i>									1							
<i>Ptilotus arthrolasius</i>					1							1				
<i>Ptilotus astrolasius</i>				1	1							1			1	
<i>Ptilotus calostachyus</i>																
<i>Ptilotus chamaecladus</i>	1		1							1	1	1				
<i>Ptilotus clementii</i>							1				1					
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola collaris</i>																
<i>Senna curvistyla</i>																1
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>																
<i>Senna venusta</i>	1	1	1	1	1	1	1			1	1	1		1		
<i>Sida arenicola</i>	1	1	1	1		1	1					1				
<i>Sida calyxhymenia</i>																
<i>Solanum dioicum</i>		1			1		1		1		1		1			1
<i>Solanum diversiflorum</i>	1	1			1		1	1			1	1			1	1
<i>Solanum esuriale</i>						1	1		1	1	1					
<i>Solanum lucari</i>									1							
<i>Stemodia grossa</i>									1							
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>														1		
<i>Tephrosia leptoclada</i>		1	1													
<i>Trianthema pilosa</i>						1	1									
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Trichodesma zeylandica</i>																
<i>Triodia epactia</i>									1							
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>					1	1						1	1	1		

name	q145	q146	q147	q148	q149	q150	q151	q152	q153	q154	q155	q156	q157	q158	q159	q160
<i>Abutilon indicum</i>			1										1		1	1
<i>Abutilon otocarpum</i>								1								
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>								1								
<i>Acacia coleii</i>							1	1		1	1			1	1	
<i>Acacia dictyophleba</i>																
<i>Acacia tumida</i>																
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>																
<i>Acacia ptychophylla</i>					1			1						1		
<i>Acacia sericophylla</i>							1									
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>												1				
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>		1		1		1	1	1	1	1	1		1			
<i>Bonamia alatisemina</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Bonamia oblongifolia</i>															1	
<i>Bonamia rosea</i>			1	1	1		1		1	1			1			
<i>Calandrinia strophiolata</i>				1												
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>			1								1					
<i>Carissa lanceolata</i>	1	1	1		1	1	1	1	1	1			1	1	1	1
<i>Cassytha filiformis</i>								1					1	1		
<i>Cenchrus ciliaris</i>		1	1	1		1	1			1	1	1	1	1	1	1
<i>Cleome uncifera</i>				1								1				
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>	1		1	1	1				1	1		1	1		1	1
<i>Corchorus sidoides subsp. sidoides</i>	1	1	1	1	1	1		1		1	1	1	1		1	1
<i>Corymbia hammerslayana</i>																
<i>Corymbia zygophylla</i>										1						
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>																
<i>Cyanostegia cyanocalyx</i>																
<i>Dodonaea coriacea</i>		1	1			1										
<i>Dolichandrone heterophylla</i>	1			1	1	1	1	1		1						
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1

name	q145	q146	q147	q148	q149	q150	q151	q152	q153	q154	q155	q156	q157	q158	q159	q160
<i>Eragrostis falcata</i>	1		1		1	1	1	1	1			1		1	1	1
<i>Erythrophleum chlorostachys</i>																
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>	1	1		1							1					
<i>Euphorbia drummondii</i>				1												
<i>Evolvulus alsinoides</i>	1	1	1	1		1		1			1				1	
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>										1	1					
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>										1						
<i>Heliotropium vestitum</i>																
<i>Hemichroa diandra</i>																
<i>Hybanthus aurantiacus</i>	1	1														
<i>Indigofera colutea</i>																
<i>Indigofera linnaei</i>				1											1	
<i>Indigofera monophylla</i>																
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>				1												
<i>Jacksonia aculeata</i>			1		1											
<i>Seringia velutina</i>																
<i>Leptosema anomalum</i>					1			1								
<i>Melaleuca alsophila</i>														1		
<i>Melaleuca lasiandra</i>		1		1							1	1	1	1	1	1
<i>Mollugo molluginea</i>						1										
<i>Neobassia astrocarpa</i>																
<i>Newcastelia cladotricha</i>			1													
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>														1	1	1
<i>Pluchea tetrantha</i>												1	1	1	1	
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>							1	1								
<i>Portulaca pilosa</i>				1				1								
<i>Pterocaulon sphacelatum</i>															1	

name	q145	q146	q147	q148	q149	q150	q151	q152	q153	q154	q155	q156	q157	q158	q159	q160
<i>Ptilotus arthrolasius</i>						1										
<i>Ptilotus astrolasius</i>		1			1	1	1	1			1					
<i>Ptilotus calostachyus</i>																
<i>Ptilotus chamaecladus</i>															1	
<i>Ptilotus clementii</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>												1				
<i>Scaevola collaris</i>																
<i>Senna curvistyla</i>																
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>																
<i>Senna venusta</i>	1			1				1			1					
<i>Sida arenicola</i>	1	1		1		1		1						1	1	1
<i>Sida calyxhymentia</i>																
<i>Solanum dioicum</i>	1		1		1	1									1	
<i>Solanum diversiflorum</i>		1		1	1	1			1							1
<i>Solanum esuriale</i>				1				1					1	1	1	1
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>															1	
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>						1										
<i>Tephrosia leptoclada</i>											1				1	
<i>Trianthema pilosa</i>	1	1		1							1					
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Trichodesma zeylandica</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>	1															

name	q161	q162	q163	q164	q165	q166	q167	q168	q169	q170	q171	q172	q173	q174	q175	q176
<i>Abutilon indicum</i>	1															1
<i>Abutilon otocarpum</i>																1
<i>Acacia ampliceps</i>			1	1			1									
<i>Acacia ancistrocarpa</i>						1		1	1	1	1	1		1	1	1
<i>Acacia coleii</i>	1	1	1		1	1	1	1	1	1	1	1		1	1	1
<i>Acacia dictyophleba</i>											1	1	1			
<i>Acacia tumida</i>								1	1							
<i>Acacia hilliana</i>						1				1						
<i>Acacia monticola</i>								1	1	1	1	1				
<i>Acacia ptychophylla</i>																
<i>Acacia sericophylla</i>								1	1		1		1	1		1
<i>Acacia stellaticeps</i>	1	1	1		1	1	1	1	1	1	1	1	1			1
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>																
<i>Aristida inaequiglumis</i>																
<i>Bauhinia cunninghamii</i>						1								1		1
<i>Bonamia alatisemina</i>	1					1	1				1					
<i>Bonamia oblongifolia</i>											1					
<i>Bonamia rosea</i>						1		1	1	1		1	1	1	1	1
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>													1			
<i>Capparis umbonata</i>						1										
<i>Carissa lanceolata</i>		1	1		1	1	1									1
<i>Cassipoupa filiformis</i>		1	1													
<i>Cenchrus ciliaris</i>	1	1	1	1	1		1					1	1		1	1
<i>Cleome uncifera</i>																
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>		1														
<i>Corchorus sidoides subsp. sidoides</i>	1					1					1	1		1	1	1
<i>Corymbia hamerslayana</i>											1		1			
<i>Corymbia zygophylla</i>															1	
<i>Corynotheca micrantha</i>																
<i>Cucumis variabilis</i>																
<i>Cyanostegia cyanocalyx</i>									1							
<i>Dodonaea coriacea</i>	1							1				1				
<i>Dolichandrone heterophylla</i>						1				1			1			
<i>Duboisia hopwoodii</i>																
<i>Enneapogon purpurascens</i>	1								1					1		

name	q161	q162	q163	q164	q165	q166	q167	q168	q169	q170	q171	q172	q173	q174	q175	q176
<i>Eragrostis falcata</i>	1					1		1		1	1			1		1
<i>Erythrophleum chlorostachys</i>								1	1	1	1		1			
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>				1		1										
<i>Euphorbia drummondii</i>																
<i>Evolvulus alsinoides</i>	1					1										
<i>Goodenia azurea</i>																
<i>Goodenia microptera</i>								1								
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>											1	1	1			
<i>Grevillea refracta</i>																
<i>Hakea chordophylla</i>													1			
<i>Hakea macrocarpa</i>											1		1	1		
<i>Heliotropium vestitum</i>													1			
<i>Hemichroa diandra</i>				1			1									
<i>Hybanthus aurantiacus</i>						1		1					1	1	1	1
<i>Indigofera colutea</i>																
<i>Indigofera linnæi</i>																
<i>Indigofera monophylla</i>													1	1	1	1
<i>Indigofera oblongifolia</i>					1											
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>								1				1	1			
<i>Seringia velutina</i>																
<i>Leptosema anomalum</i>													1			
<i>Melaleuca alsophila</i>				1												
<i>Melaleuca lasiandra</i>	1	1	1													
<i>Mollugo molluginea</i>							1									
<i>Neobassia astrocarpa</i>					1		1									
<i>Newcastelia cladotricha</i>																
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>														1		
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>	1			1			1									
<i>Pluchea tetrantha</i>	1	1														
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>				1		1										
<i>Portulaca pilosa</i>				1												
<i>Pterocaulon sphacelatum</i>					1											

name	q161	q162	q163	q164	q165	q166	q167	q168	q169	q170	q171	q172	q173	q174	q175	q176
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>						1		1		1	1	1	1	1		
<i>Ptilotus calostachyus</i>														1		
<i>Ptilotus chamaecladus</i>																
<i>Ptilotus clementii</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>											1					1
<i>Scaevola collaris</i>																
<i>Senna curvistyla</i>														1		
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>								1		1						
<i>Senna venusta</i>	1		1													
<i>Sida arenicola</i>								1						1	1	1
<i>Sida calyxhymentia</i>																
<i>Solanum dioicum</i>																
<i>Solanum diversiflorum</i>	1	1									1					
<i>Solanum esuriale</i>	1	1	1	1	1		1									
<i>Solanum lucani</i>																
<i>Stemodia grossa</i>					1											
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>												1	1			
<i>Tephrosia leptoclada</i>																
<i>Trianthema pilosa</i>																
<i>Trianthema triquetra</i>		1	1	1												
<i>Trianthema turgidifolia</i>				1												
<i>Trichodesma zeylandica</i>										1						
<i>Triodia epactia</i>	1		1	1	1		1									
<i>Triodia schinzii</i>	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																

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species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>					1		1				1	1	1	1	1	1
<i>Acacia colei</i>	1						1	1	1		1	1	1	1	1	1
<i>Acacia eriopoda</i>																
<i>Acacia hilliana</i>																1
<i>Acacia monticola</i>							1									
<i>Acacia ptychophylla</i>	1															
<i>Acacia sericophylla</i>					1		1				1	1	1	1	1	1
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1			1	1
<i>Acacia tumida</i>			1													
<i>Acacia tumida</i> var. <i>pilbarensis</i>																
<i>Acacia tumida</i> x <i>Acacia</i> sp?																
<i>Achyranthes aspera</i>				1						1	1					
<i>Aerva javanica</i>		1						1			1		1	1	1	
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>				1		1	1	1	1		1		1	1	1	1
<i>Bonamia alatisemina</i>							1	1								
<i>Bonamia linearis</i>								1			1	1	1	1		
<i>Bonamia oblongifolia</i>	1							1			1					1
<i>Bonamia rosea</i>					1	1					1				1	1
<i>Calandrinia strophiolata</i>			1		1	1					1					
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>							1									
<i>Carissa lanceolata</i>		1				1		1	1			1	1			1

species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
<i>Cassutha filiformis</i>																
<i>Cenchrus ciliaris</i>				1				1	1	1	1	1	1	1	1	
<i>Cleome viscosa</i>					1	1	1				1	1	1	1		
<i>Clerodendron tomentosum</i>																
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>					1	1	1		1	1	1		1			1
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1	1	1	1		1	1	1	1		1	1		1	1	1
<i>Corymbia hamerslayana</i>																
<i>Corymbia zygophylla</i>												1				
<i>Corynotheca micrantha</i>																
<i>Cucumis melo</i>		1					1	1	1		1	1	1		1	1
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>																
<i>Dodonaea hispidula</i> var. <i>arida</i>																
<i>Dolichandrone heterophylla</i>	1		1		1	1	1		1							1
<i>Duboisia hopwoodii</i>																
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>																
<i>Erythrophleum chlorostachys</i>					1											
<i>Eulalia aurea</i>	1		1	1				1	1	1						1
<i>Euphorbia australis</i>								1	1		1		1	1	1	
<i>Euphorbia drummondii</i>	1	1									1				1	
<i>Evolvulus alsinoides</i>				1	1	1	1	1	1		1	1	1	1	1	1
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>																
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>																
<i>Goodenia stobbsiana</i>																

species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
<i>Gossypium australe</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>		1	1													1
<i>Grevillea wickhamii</i>																
<i>Gyrostemon tepperi</i>																
<i>Hakea chordophylla</i>																
<i>Hakea macrocarpa</i>	1															
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>																
<i>Heliotropium transforme</i>																
<i>Heliotropium vestitum</i>					1	1						1				
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>			1													
<i>Hibiscus burtonii</i>		1					1		1	1						
<i>Hybanthus aurantiacus</i>		1	1	1		1	1				1	1			1	1
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>	1	1	1	1					1		1	1		1		1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>	1													1		
<i>Jacksonia aculeata</i>					1											
<i>Leptosema anomalum</i>					1											
<i>Melaleuca alsophila</i>																
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>																
<i>Mollugo molluginea</i>		1						1			1	1	1	1		
<i>Newcastelia cladotricha</i>																
<i>Owenia reticulata</i>																
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>		1	1					1								

species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>										1						
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>								1			1	1				
<i>Portulaca pilosa</i>											1		1	1	1	
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>	1	1	1	1	1	1	1				1	1	1	1	1	1
<i>Ptilotus axillaris</i>					1											
<i>Ptilotus calostachyus</i>		1	1	1								1				
<i>Ptilotus fusiformis</i>																
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>											1		1	1		
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>					1											1
<i>Scaevola spinescens</i>																
<i>Senna glutinosa subsp. glutinosa</i>																
<i>Senna notabilis</i>	1	1		1	1			1				1				
<i>Seringia katatona</i>																
<i>Seringia sp indet.</i>																
<i>Sida arenicola</i>									1							1
<i>Sida calyxhymenia</i>					1			1	1		1		1	1	1	1
<i>Solanum dioicum</i>		1					1									
<i>Solanum diversiflorum</i>	1											1				
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>	1															
<i>Spermacoce occidentalis</i>																1
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																

species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
<i>Stylobasium australe</i>																
<i>Tephrosia leptoclada</i>		1		1								1		1		1
<i>Tinospora smilacina</i>																
<i>Trachymene oleracea</i>																
<i>Trianthera pilosa</i>	1	1			1	1		1		1	1			1	1	1
<i>Trianthera triquetra</i>																
<i>Trianthera turgidifolia</i>																
<i>Tribulopsis marliesiae</i>					1	1										
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>	1															
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																

species	Q17	Q18	Q19	Q20	Q21	Q22	Q22A	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32
<i>Acacia ampliceps</i>																	
<i>Acacia ancistrocarpa</i>	1					1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia colei</i>	1	1			1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia eriopoda</i>																	
<i>Acacia hilliana</i>																	
<i>Acacia monticola</i>										1			1	1	1	1	
<i>Acacia ptychophylla</i>																	
<i>Acacia sericophylla</i>	1	1			1	1	1	1		1				1	1	1	1
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1			1			1				
<i>Acacia tumida</i>				1													
<i>Acacia tumida var. pilbarensis</i>																	
<i>Acacia tumida x Acacia sp?</i>																	
<i>Achyranthes aspera</i>	1					1	1				1						
<i>Aerva javanica</i>	1					1	1	1	1								
<i>Amaranthus undulatus</i>																	
<i>Bauhinia cunninghamii</i>	1	1	1		1	1	1	1	1						1	1	
<i>Bonamia alatisemina</i>	1		1		1												
<i>Bonamia linearis</i>	1		1	1	1	1								1	1	1	
<i>Bonamia oblongifolia</i>	1	1	1		1	1	1	1									
<i>Bonamia rosea</i>		1	1							1			1				1
<i>Calandrinia strophiolata</i>																	
<i>Calytrix carinata</i>										1							
<i>Capparis umbonata</i>		1				1											
<i>Carissa lanceolata</i>		1	1	1	1	1	1	1	1		1				1		
<i>Cassytha filiformis</i>																	
<i>Cenchrus ciliaris</i>	1	1	1		1	1	1	1	1						1		
<i>Cleome viscosa</i>	1	1				1		1	1	1	1	1	1	1	1	1	1
<i>Clerodendron tomentosum</i>															1		

species	Q17	Q18	Q19	Q20	Q21	Q22	Q22A	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32
<i>Codonocarpus cotinifolius</i>																	
<i>Corchorus parviflorus</i>		1			1		1										
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1
<i>Corymbia hammerslayana</i>															1		
<i>Corymbia zygophylla</i>										1	1	1	1	1		1	1
<i>Corynotheca micrantha</i>																	
<i>Cucumis melo</i>			1	1	1	1	1	1	1		1			1	1	1	1
<i>Cyanostegia cyanocalyx</i>																	
<i>Dampiera candidans</i>																	
<i>Dodonaea coriacea</i>						1							1				
<i>Dodonaea hispidula</i> var. <i>arida</i>																	
<i>Dolichandrone heterophylla</i>	1	1								1							
<i>Duboisia hopwoodii</i>																	
<i>Dysphania plantaginella</i>																	
<i>Ehretia saligna</i>																	
<i>Eragrostis falcata</i>							1	1									
<i>Erythrophleum chlorostachys</i>		1				1	1			1			1	1			1
<i>Eulalia aurea</i>			1				1										
<i>Euphorbia australis</i>	1	1		1	1	1	1	1	1		1			1	1		1
<i>Euphorbia drummondii</i>						1										1	
<i>Evolvulus alsinoides</i>	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1
<i>Ficus brachypoda</i>																	
<i>Gompholobium simplicifolium</i>																	
<i>Gomphrena cunninghamii</i>																	
<i>Goodenia azurea</i>																	
<i>Goodenia stobbsiana</i>				1													
<i>Gossypium australe</i>		1	1						1								
<i>Grevillea eriostachya</i>																	
<i>Grevillea pyramidalis</i>	1			1													
<i>Grevillea wickhamii</i>																	

species	Q17	Q18	Q19	Q20	Q21	Q22	Q22A	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32
<i>Gyrostemon tepperi</i>																	
<i>Hakea chordophylla</i>																	
<i>Hakea macrocarpa</i>																	
<i>Halgania erecta</i>																	
<i>Halgania solanacea</i>		1															
<i>Heliotropium transforme</i>																	
<i>Heliotropium vestitum</i>						1	1			1	1	1	1	1	1		
<i>Hemichroa diandra</i>																	
<i>Hibiscus austrinus</i>					1	1	1				1				1		
<i>Hibiscus burtonii</i>				1				1	1					1			1
<i>Hybanthus aurantiacus</i>	1	1		1		1	1	1		1			1	1	1		1
<i>Indigofera colutea</i>																	
<i>Indigofera monophylla</i>	1	1		1		1	1		1	1	1	1	1	1	1	1	1
<i>Indigofera oblongifolia</i>																	
<i>Ipomoea muelleri</i>	1																
<i>Jacksonia aculeata</i>													1			1	1
<i>Leptosema anomalum</i>																	
<i>Melaleuca alsophila</i>																	
<i>Melaleuca glomerata</i>																	
<i>Melaleuca lasiandra</i>																	
<i>Mollugo molluginea</i>	1	1	1			1	1		1	1	1	1	1	1	1	1	1
<i>Newcastelia cladotricha</i>																	
<i>Owenia reticulata</i>																	
<i>Panicum decompositum</i>																	
<i>Persoonia falcata</i>																	
<i>Phyllanthus eremicus</i>						1											
<i>Pluchea dentex</i>																	
<i>Pluchea ferdinandi-muelleri</i>																	
<i>Pluchea tetrantha</i>																	
<i>Polymeria ambigua</i>																	

species	Q17	Q18	Q19	Q20	Q21	Q22	Q22A	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32
<i>Portulaca oleracea</i>	1	1	1	1	1		1		1								
<i>Portulaca pilosa</i>	1	1		1	1	1		1	1		1	1			1	1	1
<i>Ptilotus arthrolasius</i>																	
<i>Ptilotus astrolasius</i>	1	1				1	1	1	1	1	1	1	1	1	1	1	1
<i>Ptilotus axillaris</i>																	
<i>Ptilotus calostachyus</i>		1		1		1			1	1	1	1	1		1		
<i>Ptilotus fusiformis</i>																	
<i>Ptilotus nobilis</i>																	
<i>Ptilotus polystachyus</i>	1						1	1				1				1	1
<i>Rhynchosia minima</i>																	
<i>Santalum lanceolatum</i>									1								
<i>Scaevola parvifolia</i>	1																
<i>Scaevola spinescens</i>																	
<i>Senna glutinosa subsp. glutinosa</i>																	
<i>Senna notabilis</i>	1	1	1		1						1	1					
<i>Seringia katatona</i>																	
<i>Seringia sp indet.</i>																	
<i>Sida arenicola</i>	1		1						1							1	
<i>Sida calyxhymenia</i>	1	1			1	1	1	1	1		1	1			1		
<i>Solanum dioicum</i>						1											
<i>Solanum diversiflorum</i>				1		1	1		1							1	1
<i>Solanum esuriale</i>																	
<i>Solanum lucani</i>																	
<i>Spermacoce occidentalis</i>						1									1	1	
<i>Stemodia grossa</i>			1														
<i>Streptoglossa tenuiflora</i>																	
<i>Stylobasium australe</i>		1	1	1													
<i>Tephrosia leptoclada</i>	1								1		1				1	1	1
<i>Tinospora smilacina</i>						1					1						
<i>Trachymene oleracea</i>				1													

species	Q17	Q18	Q19	Q20	Q21	Q22	Q22A	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32
<i>Trianthes pilosa</i>	1	1	1			1	1	1			1				1		
<i>Trianthes triquetra</i>																	
<i>Trianthes turgidifolia</i>																	
<i>Tribulopsis marliesiae</i>																	
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																	
<i>Trichosanthes cucumerina</i>																	
<i>Triodia epactia</i>																	
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																	
<i>Velleia panduriformis</i>																	
<i>Zornia chaetophora</i>																	

species	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q42	Q41	Q43	Q44	Q45	Q46	Q47	Q48
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1	1	1	1	1	1		1	1	1	1		1	1	1	1
<i>Acacia colei</i>	1		1	1	1	1	1	1	1	1	1		1		1	1
<i>Acacia eriopoda</i>																
<i>Acacia hilliana</i>		1														
<i>Acacia monticola</i>	1	1	1	1	1	1			1		1					1
<i>Acacia ptychophylla</i>						1	1		1							
<i>Acacia sericophylla</i>				1	1			1	1	1		1		1	1	1
<i>Acacia stellaticeps</i>	1			1		1	1	1	1		1	1	1	1	1	1
<i>Acacia tumida</i>				1			1	1				1				
<i>Acacia tumida</i> var. <i>pilbarensis</i>																
<i>Acacia tumida</i> x <i>Acacia</i> sp?																
<i>Achyranthes aspera</i>			1								1				1	
<i>Aerva javanica</i>				1		1										
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>		1	1	1		1		1								
<i>Bonamia alatisemina</i>									1							
<i>Bonamia linearis</i>			1			1					1	1				
<i>Bonamia oblongifolia</i>							1									
<i>Bonamia rosea</i>								1				1		1		
<i>Calandrinia strophiolata</i>														1		
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>				1	1	1	1	1							1	1
<i>Cassytha filiformis</i>																
<i>Cenchrus ciliaris</i>			1	1			1	1								
<i>Cleome viscosa</i>	1	1	1		1	1	1	1	1		1					1
<i>Clerodendron tomentosum</i>			1	1												
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>							1	1	1			1				

species	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q42	Q41	Q43	Q44	Q45	Q46	Q47	Q48
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1
<i>Corymbia hammerslayana</i>				1					1		1				1	
<i>Corymbia zygophylla</i>												1				
<i>Corynotheca micrantha</i>																
<i>Cucumis melo</i>		1	1	1		1	1	1	1		1	1		1	1	
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>			1									1				
<i>Dodonaea hispidula</i> var. <i>arida</i>																
<i>Dolichandrone heterophylla</i>									1					1	1	
<i>Duboisia hopwoodii</i>							1									
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>																
<i>Erythrophleum chlorostachys</i>										1		1		1	1	1
<i>Eulalia aurea</i>										1						
<i>Euphorbia australis</i>	1			1	1	1	1	1	1			1				
<i>Euphorbia drummondii</i>	1		1		1	1	1		1	1	1		1		1	
<i>Evolvulus alsinoides</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>																
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>																
<i>Goodenia stobbsiana</i>	1															
<i>Gossypium australe</i>				1												
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>						1		1						1		1
<i>Grevillea wickhamii</i>																
<i>Gyrostemon tepperi</i>																
<i>Hakea chordophylla</i>																

species	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q42	Q41	Q43	Q44	Q45	Q46	Q47	Q48
<i>Hakea macrocarpa</i>								1								
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>														1		
<i>Heliotropium transforme</i>																
<i>Heliotropium vestitum</i>		1		1												1
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>							1				1					
<i>Hibiscus burtonii</i>			1			1					1	1				
<i>Hybanthus aurantiacus</i>	1	1	1	1	1					1			1	1	1	1
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>	1	1	1	1	1	1				1	1		1		1	1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>			1									1		1	1	1
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>							1	1								
<i>Mollugo molluginea</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Newcastelia cladotricha</i>																
<i>Owenia reticulata</i>																
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																1
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																1
<i>Portulaca oleracea</i>			1				1									
<i>Portulaca pilosa</i>	1	1	1	1			1	1	1	1			1			1

species	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q42	Q41	Q43	Q44	Q45	Q46	Q47	Q48
<i>Ptilotus arthrolasius</i>								1								
<i>Ptilotus astrolasius</i>	1	1	1	1				1	1	1		1	1	1	1	1
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>	1	1	1							1			1	1	1	1
<i>Ptilotus fusiformis</i>							1									
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>			1	1			1		1		1	1		1		1
<i>Rhynchosia minima</i>										1						
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>				1			1	1				1				
<i>Scaevola spinescens</i>																
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>					1											
<i>Senna notabilis</i>							1	1	1							1
<i>Seringia katatona</i>																
<i>Seringia</i> sp. <i>indet.</i>									1							
<i>Sida arenicola</i>	1	1					1						1			
<i>Sida calyxhymenia</i>				1	1	1		1	1		1					
<i>Solanum dioicum</i>														1	1	1
<i>Solanum diversiflorum</i>									1	1	1	1			1	1
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>														1		
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>																
<i>Tephrosia leptoclada</i>			1		1		1			1	1	1			1	
<i>Tinospora smilacina</i>				1				1	1		1				1	
<i>Trachymene oleracea</i>	1	1			1	1										
<i>Trianthema pilosa</i>	1		1				1		1					1		
<i>Trianthema triquetra</i>																

species	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q42	Q41	Q43	Q44	Q45	Q46	Q47	Q48
<i>Trianthera turgidifolia</i>																
<i>Tribulopsis marliesiae</i>														1		
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																

species	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63	Q64
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1	1	1	1	1			1	1	1						1
<i>Acacia coleii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1			1
<i>Acacia eriopoda</i>																
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>										1						
<i>Acacia ptychophylla</i>																
<i>Acacia sericophylla</i>	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia tumida</i>					1	1		1		1			1			
<i>Acacia tumida</i> var. <i>pillbarensis</i>																
<i>Acacia tumida</i> x <i>Acacia</i> sp?																
<i>Achyranthes aspera</i>				1				1								
<i>Aerva javanica</i>					1											
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>	1			1												1
<i>Bonamia alatisemina</i>				1	1				1							
<i>Bonamia linearis</i>				1	1											
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>		1		1	1											
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>						1			1							
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>																
<i>Cassytha filiformis</i>						1					1			1		1
<i>Cenchrus ciliaris</i>		1		1	1	1										
<i>Cleome viscosa</i>		1	1	1				1	1							1

species	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63	Q64
<i>Clerodendron tomentosum</i>																
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>	1		1	1	1				1							
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1		1	1	1	1						1			1	1
<i>Corymbia hammerslayana</i>		1														
<i>Corymbia zygophylla</i>						1	1	1	1	1						1
<i>Corynotheca micrantha</i>							1			1						
<i>Cucumis melo</i>					1				1	1						
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>				1		1	1	1	1		1	1				
<i>Dodonaea hispidula</i> var. <i>arida</i>											1					
<i>Dolichandrone heterophylla</i>		1	1	1					1				1		1	1
<i>Duboisia hopwoodii</i>																
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>						1		1		1						
<i>Erythrophleum chlorostachys</i>			1			1	1	1		1	1	1	1			
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>			1	1												
<i>Euphorbia drummondii</i>						1		1								
<i>Evolvulus alsinoides</i>	1	1	1	1	1				1	1	1	1				
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>						1	1	1		1	1		1		1	
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>																
<i>Goodenia stobbsiana</i>																
<i>Gossypium australe</i>			1													
<i>Grevillea eriostachya</i>						1		1	1	1						
<i>Grevillea pyramidalis</i>					1	1	1			1	1	1	1			1

species	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63	Q64
<i>Grevillea wickhamii</i>										1			1			
<i>Gyrostemon tepperi</i>						1	1	1	1	1	1		1		1	1
<i>Hakea chordophylla</i>						1	1					1				
<i>Hakea macrocarpa</i>									1		1					
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>	1					1	1	1	1	1	1	1	1	1		1
<i>Heliotropium transforme</i>										1						
<i>Heliotropium vestitum</i>	1		1			1	1							1		
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>	1											1				
<i>Hibiscus burtonii</i>																
<i>Hybanthus aurantiacus</i>	1			1		1	1	1	1		1				1	
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>	1	1	1													
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>		1	1	1		1	1	1			1		1	1		
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>												1		1		
<i>Mollugo molluginea</i>	1	1	1	1	1	1		1	1	1	1					1
<i>Newcastelia cladotricha</i>																
<i>Owenia reticulata</i>								1		1					1	
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>									1							
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																
<i>Pluchea tetrantha</i>																

species	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63	Q64
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>		1		1												
<i>Portulaca pilosa</i>	1	1		1	1											
<i>Ptilotus arthrolasius</i>					1											
<i>Ptilotus astrolasius</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>		1				1										
<i>Ptilotus fusiformis</i>		1	1	1	1											
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>	1											1				
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>						1	1	1		1	1			1		
<i>Scaevola spinescens</i>																
<i>Senna glutinosa subsp. glutinosa</i>				1												
<i>Senna notabilis</i>				1												
<i>Seringia katatona</i>																
<i>Seringia sp indet.</i>			1													
<i>Sida arenicola</i>	1									1						
<i>Sida calyxhymenia</i>		1	1	1				1								
<i>Solanum dioicum</i>		1	1			1										
<i>Solanum diversiflorum</i>		1		1												
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>																
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>						1					1					1
<i>Tephrosia leptoclada</i>																
<i>Tinospora smilacina</i>		1			1	1		1		1						

species	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63	Q64
<i>Trachymene oleracea</i>																
<i>Trianthes pilosa</i>	1			1						1						
<i>Trianthes triquetra</i>																
<i>Trianthes turgidifolia</i>																
<i>Tribulopsis marliesiae</i>		1	1			1	1	1	1	1	1	1	1	1	1	1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	1															
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>		1				1										1
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																

species	Q65	Q66	Q67	Q68	Q69	Q70	Q71	Q72	Q73	Q74	Q75	Q76	Q77	Q78	Q79	Q80
<i>Acacia ampliceps</i>		1	1	1	1											
<i>Acacia ancistrocarpa</i>			1				1		1	1			1	1		1
<i>Acacia colei</i>	1					1		1	1	1		1			1	
<i>Acacia eriopoda</i>							1	1						1	1	
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>									1	1						
<i>Acacia ptychophylla</i>	1										1					1
<i>Acacia sericophylla</i>	1		1			1	1	1	1	1	1	1	1			1
<i>Acacia stellaticeps</i>	1	1	1			1	1	1		1	1	1	1	1	1	1
<i>Acacia tumida</i>							1	1				1	1	1	1	1
<i>Acacia tumida var. pilbarensis</i>																
<i>Acacia tumida x Acacia sp?</i>																
<i>Achyranthes aspera</i>																
<i>Aerva javanica</i>		1														
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>																
<i>Bonamia alatisemina</i>									1		1					1
<i>Bonamia linearis</i>																1
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>																
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>													1			
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>																
<i>Cassytha filiformis</i>																
<i>Cenchrus ciliaris</i>		1	1	1												
<i>Cleome viscosa</i>				1												
<i>Clerodendron tomentosum</i>																

species	Q65	Q66	Q67	Q68	Q69	Q70	Q71	Q72	Q73	Q74	Q75	Q76	Q77	Q78	Q79	Q80
<i>Codonocarpus cotinifolius</i>			1			1										
<i>Corchorus parviflorus</i>																
<i>Corchorus sidoides subsp. sidoides</i>							1	1	1			1	1	1		1
<i>Corymbia hamerslayana</i>																
<i>Corymbia zygophylla</i>	1						1	1		1		1	1	1	1	1
<i>Corynotheca micrantha</i>																
<i>Cucumis melo</i>	1							1				1		1		
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>								1		1			1	1		
<i>Dodonaea hispidula var. arida</i>															1	
<i>Dolichandrone heterophylla</i>							1	1								1
<i>Duboisia hopwoodii</i>																
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>				1	1		1	1	1			1				1
<i>Erythrophleum chlorostachys</i>							1	1	1	1	1	1	1	1	1	1
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>																
<i>Euphorbia drummondii</i>			1	1	1	1			1			1				
<i>Evolvulus alsinoides</i>	1								1	1	1	1		1		1
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>													1	1	1	1
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>																
<i>Goodenia stobbsiana</i>																
<i>Gossypium australe</i>																
<i>Grevillea eriostachya</i>													1			
<i>Grevillea pyramidalis</i>														1		
<i>Grevillea wickhamii</i>																

species	Q65	Q66	Q67	Q68	Q69	Q70	Q71	Q72	Q73	Q74	Q75	Q76	Q77	Q78	Q79	Q80
<i>Gyrostemon tepperi</i>	1									1				1	1	
<i>Hakea chordophylla</i>											1				1	
<i>Hakea macrocarpa</i>											1			1		
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>							1	1	1	1	1		1	1	1	1
<i>Heliotropium transforme</i>																
<i>Heliotropium vestitum</i>												1				
<i>Hemichroa diandra</i>			1	1												
<i>Hibiscus austrinus</i>									1							
<i>Hibiscus burtonii</i>												1				
<i>Hybanthus aurantiacus</i>								1	1	1	1	1	1	1		1
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>																
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>							1	1			1	1		1	1	
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>		1	1	1	1											
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>			1	1		1										
<i>Mollugo molluginea</i>	1						1	1	1	1	1	1	1		1	1
<i>Newcastelia cladotricha</i>	1															
<i>Owenia reticulata</i>																
<i>Panicum decompositum</i>		1			1					1	1					
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>											1	1				
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>		1	1	1	1	1										
<i>Pluchea tetrantha</i>		1	1													
<i>Polymeria ambigua</i>																

species	Q65	Q66	Q67	Q68	Q69	Q70	Q71	Q72	Q73	Q74	Q75	Q76	Q77	Q78	Q79	Q80
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>										1			1			
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>	1						1	1	1	1	1	1	1	1	1	1
<i>Ptilotus axillaris</i>			1		1											
<i>Ptilotus calostachyus</i>										1	1	1				1
<i>Ptilotus fusiformis</i>																
<i>Ptilotus nobilis</i>		1		1												
<i>Ptilotus polystachyus</i>									1							
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>															1	
<i>Scaevola spinescens</i>		1	1													
<i>Senna glutinosa subsp. glutinosa</i>																
<i>Senna notabilis</i>			1													
<i>Seringia katatona</i>																
<i>Seringia sp indet.</i>																
<i>Sida arenicola</i>																
<i>Sida calyxhymenia</i>																
<i>Solanum dioicum</i>		1	1						1		1			1		
<i>Solanum diversiflorum</i>																
<i>Solanum esuriale</i>			1													
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>								1								
<i>Stemodia grossa</i>			1		1											
<i>Streptoglossa tenuiflora</i>				1												
<i>Stylobasium australe</i>	1													1		
<i>Tephrosia leptoclada</i>																
<i>Tinospora smilacina</i>												1	1	1		
<i>Trachymene oleracea</i>																

species	Q65	Q66	Q67	Q68	Q69	Q70	Q71	Q72	Q73	Q74	Q75	Q76	Q77	Q78	Q79	Q80
<i>Trianthes pilosa</i>																1
<i>Trianthes triquetra</i>		1	1	1	1	1										
<i>Trianthes turgidifolia</i>		1		1	1	1										
<i>Tribulopsis marliesiae</i>	1						1	1	1				1	1	1	
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>		1	1	1	1	1										
<i>Triodia schinzii</i>	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>							1									1
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																

species	Q81	Q82	Q83	Q84	Q85	Q86	Q87	Q88	Q89	Q90	Q91	Q92	Q93	Q94	Q95	Q96
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1															
<i>Acacia colei</i>		1	1	1		1	1		1	1		1		1	1	1
<i>Acacia eriopoda</i>					1		1	1	1							
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>	1	1				1			1							
<i>Acacia ptychophylla</i>								1								1
<i>Acacia sericophylla</i>		1			1	1	1	1		1		1				
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia tumida</i>	1	1	1	1	1	1	1		1							
<i>Acacia tumida var. pilbarensis</i>																
<i>Acacia tumida x Acacia sp?</i>																
<i>Achyranthes aspera</i>																
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>																
<i>Bonamia alatisemina</i>	1	1		1	1		1	1			1		1	1	1	1
<i>Bonamia linearis</i>																
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>															1	
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>	1		1	1	1						1				1	
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>																
<i>Cassytha filiformis</i>				1		1		1				1	1			
<i>Cenchrus ciliaris</i>	1															
<i>Cleome viscosa</i>													1		1	
<i>Clerodendron tomentosum</i>																

species	Q81	Q82	Q83	Q84	Q85	Q86	Q87	Q88	Q89	Q90	Q91	Q92	Q93	Q94	Q95	Q96
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>													1			
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>						1		1				1			1	1
<i>Corymbia hammerslayana</i>																
<i>Corymbia zygophylla</i>						1	1	1	1							
<i>Corynotheca micrantha</i>					1		1									
<i>Cucumis melo</i>		1	1			1		1				1				
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>											1				1	
<i>Dodonaea hispidula</i> var. <i>arida</i>			1													
<i>Dolichandrone heterophylla</i>		1			1			1	1	1					1	
<i>Duboisia hopwoodii</i>			1		1											
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>																
<i>Erythrophleum chlorostachys</i>	1	1	1	1	1	1	1	1	1						1	
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>																
<i>Euphorbia drummondii</i>			1													
<i>Evolvulus alsinoides</i>		1	1			1	1	1			1					
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>	1		1	1	1	1		1		1	1					
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>																
<i>Goodenia stobbsiana</i>																
<i>Gossypium australe</i>							1									
<i>Grevillea eriostachya</i>	1		1	1	1	1	1	1	1	1						
<i>Grevillea pyramidalis</i>			1	1	1						1					
<i>Grevillea wickhamii</i>		1	1	1												

species	Q81	Q82	Q83	Q84	Q85	Q86	Q87	Q88	Q89	Q90	Q91	Q92	Q93	Q94	Q95	Q96
<i>Gyrostemon tepperi</i>			1		1	1	1		1					1	1	
<i>Hakea chordophylla</i>	1			1												
<i>Hakea macrocarpa</i>			1	1			1			1					1	
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>	1		1	1		1	1		1	1	1					
<i>Heliotropium transforme</i>																
<i>Heliotropium vestitum</i>											1					
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>																
<i>Hibiscus burtonii</i>																
<i>Hybanthus aurantiacus</i>		1		1	1	1	1	1		1	1					
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>																
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>	1	1	1	1	1			1		1	1				1	
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>													1			
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>											1	1	1	1	1	1
<i>Mollugo molluginea</i>	1	1	1	1	1	1	1	1	1	1		1			1	1
<i>Newcastelia cladotricha</i>													1	1	1	1
<i>Owenia reticulata</i>		1													1	
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>													1	1		1
<i>Pluchea tetrantha</i>														1		
<i>Polymeria ambigua</i>																

species	Q81	Q82	Q83	Q84	Q85	Q86	Q87	Q88	Q89	Q90	Q91	Q92	Q93	Q94	Q95	Q96
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>								1							1	
<i>Ptilotus arthrolasius</i>														1	1	
<i>Ptilotus astrolasius</i>	1	1	1	1	1	1	1	1	1	1	1			1	1	
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>			1							1						
<i>Ptilotus fusiformis</i>											1			1	1	
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>													1			
<i>Scaevola parvifolia</i>	1							1								
<i>Scaevola spinescens</i>																
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>			1													
<i>Senna notabilis</i>														1		
<i>Seringia katatona</i>																
<i>Seringia</i> sp indet.					1										1	
<i>Sida arenicola</i>		1														
<i>Sida calyxhymenia</i>															1	
<i>Solanum dioicum</i>																
<i>Solanum diversiflorum</i>						1							1	1		
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>		1														
<i>Stemodia grossa</i>													1	1	1	1
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>			1								1					
<i>Tephrosia leptoclada</i>																
<i>Tinospora smilacina</i>	1				1	1		1								
<i>Trachymene oleracea</i>																

species	Q81	Q82	Q83	Q84	Q85	Q86	Q87	Q88	Q89	Q90	Q91	Q92	Q93	Q94	Q95	Q96
<i>Trianthes pilosa</i>																
<i>Trianthes triquetra</i>																
<i>Trianthes turgidifolia</i>																
<i>Tribulopsis marliesiae</i>		1	1	1	1		1		1	1	1	1			1	
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>		1														
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																

species	Q97	Q98	Q99	Q100	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	Q109	Q110	Q111	Q112
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>						1	1	1								
<i>Acacia colei</i>		1	1		1	1	1	1	1	1	1	1	1	1		1
<i>Acacia eriopoda</i>					1	1					1	1				1
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>																
<i>Acacia ptychophylla</i>							1	1								
<i>Acacia sericophylla</i>			1		1	1	1	1					1	1		1
<i>Acacia stellaticeps</i>	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1
<i>Acacia tumida</i>				1	1	1	1	1	1	1	1	1	1			
<i>Acacia tumida var. pilbarensis</i>																
<i>Acacia tumida x Acacia sp?</i>																
<i>Achyranthes aspera</i>																
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>																
<i>Bonamia alatisemina</i>		1	1				1	1						1	1	
<i>Bonamia linearis</i>																
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>																
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>														1		
<i>Cassytha filiformis</i>			1				1								1	
<i>Cenchrus ciliaris</i>								1			1					
<i>Cleome viscosa</i>	1													1	1	
<i>Clerodendron tomentosum</i>																

species	Q97	Q98	Q99	Q100	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	Q109	Q110	Q111	Q112	
<i>Codonocarpus cotinifolius</i>						1									1		
<i>Corchorus parviflorus</i>	1																
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1	1	1	1	1	1	1	1	1			1	1			1	
<i>Corymbia hammerslayana</i>																	
<i>Corymbia zygophylla</i>					1	1	1		1	1	1	1					
<i>Corynotheca micrantha</i>					1						1						
<i>Cucumis melo</i>						1			1			1					
<i>Cyanostegia cyanocalyx</i>																	
<i>Dampiera candidans</i>																	
<i>Dodonaea coriacea</i>			1	1			1								1	1	1
<i>Dodonaea hispidula</i> var. <i>arida</i>	1									1			1				
<i>Dolichandrone heterophylla</i>													1	1		1	
<i>Duboisia hopwoodii</i>				1		1											
<i>Dysphania plantaginella</i>																	
<i>Ehretia saligna</i>																	
<i>Eragrostis falcata</i>							1										
<i>Erythrophleum chlorostachys</i>			1	1	1	1	1	1	1	1	1	1	1				
<i>Eulalia aurea</i>	1							1									
<i>Euphorbia australis</i>																	
<i>Euphorbia drummondii</i>	1			1	1					1		1					
<i>Evolvulus alsinoides</i>					1	1	1	1		1	1	1					
<i>Ficus brachypoda</i>																	
<i>Gompholobium simplicifolium</i>				1		1	1	1		1	1	1	1				
<i>Gomphrena cunninghamii</i>																	
<i>Goodenia azurea</i>																	
<i>Goodenia stobbsiana</i>																	

species	Q97	Q98	Q99	Q100	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	Q109	Q110	Q111	Q112
<i>Gossypium australe</i>														1		
<i>Grevillea eriostachya</i>				1	1		1	1			1	1	1			
<i>Grevillea pyramidalis</i>		1	1			1		1	1					1		1
<i>Grevillea wickhamii</i>				1	1								1			
<i>Gyrostemon tepperi</i>			1	1	1	1	1	1	1	1		1	1			1
<i>Hakea chordophylla</i>						1	1		1							
<i>Hakea macrocarpa</i>				1	1	1	1		1		1	1	1			
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>			1	1	1	1	1	1	1	1	1	1	1			
<i>Heliotropium transforme</i>					1						1					
<i>Heliotropium vestitum</i>		1				1	1		1							1
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>																
<i>Hibiscus burtonii</i>										1						
<i>Hybanthus aurantiacus</i>								1	1	1	1					
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>		1	1	1	1	1		1	1	1	1	1				
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>	1															
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>	1	1	1											1	1	
<i>Mollugo molluginea</i>		1		1	1	1	1	1	1	1	1	1		1	1	1
<i>Newcastelia cladotricha</i>															1	
<i>Owenia reticulata</i>		1														1
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>												1				
<i>Phyllanthus eremicus</i>							1									

species	Q97	Q98	Q99	Q100	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	Q109	Q110	Q111	Q112
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>	1															
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>							1		1	1						
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>											1					
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>		1	1	1	1	1	1		1	1	1	1	1	1	1	1
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>				1					1	1		1				
<i>Ptilotus fusiformis</i>								1						1	1	
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>					1	1	1		1			1	1			
<i>Scaevola spinescens</i>																
<i>Senna glutinosa</i> <i>subsp. glutinosa</i>																
<i>Senna notabilis</i>																
<i>Seringia katarona</i>																
<i>Seringia sp indet.</i>																
<i>Sida arenicola</i>														1	1	
<i>Sida calyxhymenia</i>	1															
<i>Solanum dioicum</i>								1								
<i>Solanum diversiflorum</i>	1				1							1		1		1
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>																
<i>Stemodia grossa</i>	1															

species	Q97	Q98	Q99	Q100	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	Q109	Q110	Q111	Q112
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>			1	1		1					1		1			1
<i>Tephrosia leptoclada</i>	1															
<i>Tinospora smilacina</i>					1		1	1		1	1	1				
<i>Trachymene oleracea</i>																
<i>Trianthera pilosa</i>						1	1									
<i>Trianthera triquetra</i>																
<i>Trianthera turgidifolia</i>	1															
<i>Tribulopsis marliesiae</i>			1	1	1	1	1		1	1	1	1	1	1		1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>										1						1
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																

species	Q11 3	Q11 4	Q11 5	Q11 6	Q11 7	Q11 8	Q11 9	Q12 0	Q12 1	Q12 2	Q12 3	Q12 4	Q12 5	Q12 6	Q12 7	Q12 8
<i>Acacia ampliceps</i>													1	1	1	1
<i>Acacia ancistrocarpa</i>																
<i>Acacia colei</i>	1	1	1	1	1	1	1		1	1		1	1	1		1
<i>Acacia eriopoda</i>			1	1				1								
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>																
<i>Acacia ptychophylla</i>				1												
<i>Acacia sericophylla</i>		1	1	1	1											
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia tumida</i>			1	1	1	1	1	1	1							
<i>Acacia tumida var. pilbarensis</i>																
<i>Acacia tumida x Acacia sp?</i>																
<i>Achyranthes aspera</i>																
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>	1															
<i>Bonamia alatisemina</i>														1		
<i>Bonamia linearis</i>																
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>																
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>										1						
<i>Cassytha filiformis</i>				1				1		1			1			
<i>Cenchrus ciliaris</i>			1								1					
<i>Cleome viscosa</i>	1				1						1			1		1
<i>Clerodendron tomentosum</i>																

species	Q11 3	Q11 4	Q11 5	Q11 6	Q11 7	Q11 8	Q11 9	Q12 0	Q12 1	Q12 2	Q12 3	Q12 4	Q12 5	Q12 6	Q12 7	Q12 8
<i>Codonocarpus cotinifolius</i>	1					1							1	1	1	1
<i>Corchorus parviflorus</i>														1		1
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>			1	1	1	1	1	1	1					1		
<i>Corymbia hammerslayana</i>																
<i>Corymbia zygophylla</i>			1				1	1								
<i>Corynotheca micrantha</i>																
<i>Cucumis melo</i>																
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>						1			1							
<i>Dodonaea hispidula</i> var. <i>arida</i>																
<i>Dolichandrone heterophylla</i>		1	1	1	1		1		1						1	
<i>Duboisia hopwoodii</i>				1		1										
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>	1		1	1							1		1			1
<i>Erythrophleum chlorostachys</i>							1	1								
<i>Eulalia aurea</i>														1		
<i>Euphorbia australis</i>																
<i>Euphorbia drummondii</i>											1	1	1	1		1
<i>Evolvulus alsinoides</i>					1					1	1		1	1		
<i>Ficus brachypoda</i>		1														
<i>Gompholobium simplicifolium</i>				1	1	1	1	1								
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>																
<i>Goodenia stobbsiana</i>																
<i>Gossypium australe</i>																
<i>Grevillea eriostachya</i>				1			1	1	1							
<i>Grevillea pyramidalis</i>		1				1								1		1

species	Q11 3	Q11 4	Q11 5	Q11 6	Q11 7	Q11 8	Q11 9	Q12 0	Q12 1	Q12 2	Q12 3	Q12 4	Q12 5	Q12 6	Q12 7	Q12 8
<i>Grevillea wickhamii</i>			1		1	1	1									
<i>Gyrostemon tepperi</i>		1		1	1	1	1	1	1							
<i>Hakea chordophylla</i>						1			1							
<i>Hakea macrocarpa</i>		1	1		1	1	1	1	1							
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>	1	1	1	1	1	1	1	1	1							
<i>Heliotropium transforme</i>														1		
<i>Heliotropium vestitum</i>	1	1				1										
<i>Hemichroa diandra</i>																1
<i>Hibiscus austrinus</i>																
<i>Hibiscus burtonii</i>														1		
<i>Hybanthus aurantiacus</i>			1		1	1		1	1							
<i>Indigofera colutea</i>														1		1
<i>Indigofera monophylla</i>										1				1		
<i>Indigofera oblongifolia</i>													1			
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>		1		1	1	1	1	1	1							
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>										1			1			1
<i>Melaleuca glomerata</i>															1	
<i>Melaleuca lasiandra</i>	1									1			1	1	1	1
<i>Mollugo molluginea</i>			1	1	1		1	1	1	1				1		
<i>Newcastelia cladotricha</i>										1	1		1			1
<i>Owenia reticulata</i>			1		1	1								1		
<i>Panicum decompositum</i>											1		1			
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>													1			
<i>Pluchea ferdinandi-muelleri</i>										1	1	1	1		1	1

species	Q11 3	Q11 4	Q11 5	Q11 6	Q11 7	Q11 8	Q11 9	Q12 0	Q12 1	Q12 2	Q12 3	Q12 4	Q12 5	Q12 6	Q12 7	Q12 8
<i>Pluchea tetrantha</i>													1			
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>												1				
<i>Portulaca pilosa</i>					1						1	1	1	1		
<i>Ptilotus arthrolasius</i>														1		
<i>Ptilotus astrolasius</i>	1		1	1	1	1	1	1	1	1						
<i>Ptilotus axillaris</i>													1	1	1	
<i>Ptilotus calostachyus</i>						1										
<i>Ptilotus fusiformis</i>			1													
<i>Ptilotus nobilis</i>												1			1	
<i>Ptilotus polystachyus</i>																
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>			1			1		1								
<i>Scaevola spinescens</i>																
<i>Senna glutinosa subsp. glutinosa</i>							1									
<i>Senna notabilis</i>													1	1		
<i>Seringia katonana</i>																
<i>Seringia sp. indet.</i>						1	1									
<i>Sida arenicola</i>																
<i>Sida calyxhymentia</i>		1														
<i>Solanum dioicum</i>												1				
<i>Solanum diversiflorum</i>															1	
<i>Solanum esuriale</i>												1	1			
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>																
<i>Stemodia grossa</i>										1	1		1		1	1
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>			1	1	1		1	1	1							

species	Q11 3	Q11 4	Q11 5	Q11 6	Q11 7	Q11 8	Q11 9	Q12 0	Q12 1	Q12 2	Q12 3	Q12 4	Q12 5	Q12 6	Q12 7	Q12 8
<i>Tephrosia leptoclada</i>													1			
<i>Tinospora smilacina</i>																
<i>Trachymene oleracea</i>																
<i>Trianthema pilosa</i>				1							1					
<i>Trianthema triquetra</i>												1	1			1
<i>Trianthema turgidifolia</i>											1	1	1		1	1
<i>Tribulopsis marliesiae</i>	1	1	1		1		1	1	1						1	
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>											1	1				1
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
<i>Triumfetta chaetocarpa</i>	1				1											
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																

species	Q12 9	Q13 0	Q13 1	Q13 2	Q13 3	Q13 4	Q13 5	Q13 6	Q13 7	Q13 8	Q13 9	Q14 0	Q14 1	Q14 2	Q14 3	Q14 4
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>								1					1			1
<i>Acacia colei</i>		1		1	1	1	1	1	1	1	1	1	1			1
<i>Acacia eriopoda</i>					1	1							1			
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>													1			
<i>Acacia ptychophylla</i>																
<i>Acacia sericophylla</i>				1		1	1	1		1	1	1	1	1		
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia tumida</i>				1	1	1	1	1	1		1	1	1	1	1	
<i>Acacia tumida</i> var. <i>pilbarensis</i>																
<i>Acacia tumida</i> x <i>Acacia</i> sp?																
<i>Achyranthes aspera</i>																
<i>Aerva javanica</i>																1
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>																1
<i>Bonamia alatisemina</i>					1	1	1	1	1							
<i>Bonamia linearis</i>												1				1
<i>Bonamia oblongifolia</i>							1									
<i>Bonamia rosea</i>														1		
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>					1										1	1
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>			1	1			1									1
<i>Cassutha filiformis</i>	1						1			1			1			1
<i>Cenchrus ciliaris</i>								1		1		1				1
<i>Cleome viscosa</i>		1														1
<i>Clerodendron tomentosum</i>																1

species	Q12 9	Q13 0	Q13 1	Q13 2	Q13 3	Q13 4	Q13 5	Q13 6	Q13 7	Q13 8	Q13 9	Q14 0	Q14 1	Q14 2	Q14 3	Q14 4
<i>Codonocarpus cotinifolius</i>								1								
<i>Corchorus parviflorus</i>																
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>		1			1		1		1	1	1	1	1	1	1	1
<i>Corymbia hammerslayana</i>																
<i>Corymbia zygophylla</i>				1	1		1	1	1	1			1	1		
<i>Corynotheca micrantha</i>					1	1	1				1					
<i>Cucumis melo</i>						1		1	1	1				1	1	
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>		1				1										
<i>Dodonaea hispidula</i> var. <i>arida</i>																
<i>Dolichandrone heterophylla</i>		1	1	1	1	1	1	1	1	1	1	1	1			
<i>Duboisia hopwoodii</i>					1	1	1				1	1				
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>	1	1					1			1	1	1		1	1	
<i>Erythrophleum chlorostachys</i>						1		1	1	1	1	1	1	1	1	
<i>Eulalia aurea</i>														1		
<i>Euphorbia australis</i>																1
<i>Euphorbia drummondii</i>								1	1						1	1
<i>Evolvulus alsinoides</i>				1								1		1		1
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>				1	1	1	1	1	1		1	1		1		
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>																
<i>Goodenia stobbsiana</i>																
<i>Gossypium australe</i>																
<i>Grevillea eriostachya</i>					1		1		1		1	1		1		
<i>Grevillea pyramidalis</i>		1			1	1		1	1						1	

species	Q12 9	Q13 0	Q13 1	Q13 2	Q13 3	Q13 4	Q13 5	Q13 6	Q13 7	Q13 8	Q13 9	Q14 0	Q14 1	Q14 2	Q14 3	Q14 4
<i>Grevillea wickhamii</i>																
<i>Gyrostemon tepperi</i>		1		1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Hakea chordophylla</i>		1		1				1	1							1
<i>Hakea macrocarpa</i>					1						1	1	1			
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>				1	1	1		1	1	1	1	1	1	1	1	
<i>Heliotropium transforme</i>												1	1	1		
<i>Heliotropium vestitum</i>				1									1			
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>												1				
<i>Hibiscus burtonii</i>		1						1				1				
<i>Hybanthus aurantiacus</i>				1			1	1		1	1	1	1	1	1	1
<i>Indigofera colutea</i>	1															
<i>Indigofera monophylla</i>												1				
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>				1	1	1	1	1	1	1	1	1				
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>	1															
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>	1	1	1													
<i>Mollugo molluginea</i>		1		1	1		1		1	1	1	1	1	1	1	1
<i>Newcastelia cladotricha</i>														1		
<i>Owenia reticulata</i>		1														
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>											1		1			
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>	1															1

species	Q12 9	Q13 0	Q13 1	Q13 2	Q13 3	Q13 4	Q13 5	Q13 6	Q13 7	Q13 8	Q13 9	Q14 0	Q14 1	Q14 2	Q14 3	Q14 4
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>														1		
<i>Portulaca oleracea</i>																1
<i>Portulaca pilosa</i>						1						1			1	1
<i>Ptilotus arthrolasius</i>														1		
<i>Ptilotus astrolasius</i>		1		1	1	1	1	1	1	1	1	1	1		1	
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>												1			1	
<i>Ptilotus fusiformis</i>			1	1												
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>												1				
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>						1	1	1	1	1	1	1		1	1	
<i>Scaevola spinescens</i>																
<i>Senna glutinosa subsp. glutinosa</i>																
<i>Senna notabilis</i>		1														
<i>Seringia katonata</i>																
<i>Seringia sp. indet.</i>												1	1		1	
<i>Sida arenicola</i>																
<i>Sida calyxhymentia</i>																
<i>Solanum dioicum</i>																
<i>Solanum diversiflorum</i>															1	
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>																
<i>Stemodia grossa</i>		1														
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>				1	1	1		1			1					

species	Q12 9	Q13 0	Q13 1	Q13 2	Q13 3	Q13 4	Q13 5	Q13 6	Q13 7	Q13 8	Q13 9	Q14 0	Q14 1	Q14 2	Q14 3	Q14 4
<i>Tephrosia leptoclada</i>																
<i>Tinospora smilacina</i>				1	1		1	1	1	1	1	1	1	1	1	
<i>Trachymene oleracea</i>																
<i>Trianthea pilosa</i>																
<i>Trianthea triquetra</i>																
<i>Trianthea turgidifolia</i>	1															
<i>Tribulopsis marliesiae</i>		1	1	1	1	1	1		1	1	1	1	1	1		
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																1
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																1

species	Q14 5	Q14 6	Q14 7	Q14 8	Q14 9	Q15 0	Q15 1	Q15 2	Q15 3	Q15 4	Q15 5	Q15 6	Q15 7	Q15 8	Q15 9	Q16 0
<i>Acacia ampliceps</i>	1	1	1													
<i>Acacia ancistrocarpa</i>						1	1	1			1	1	1		1	1
<i>Acacia colei</i>	1			1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia eriopoda</i>																
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>										1	1	1	1	1	1	1
<i>Acacia ptychophylla</i>							1							1	1	
<i>Acacia sericophylla</i>				1			1		1	1	1		1	1		1
<i>Acacia stellaticeps</i>	1			1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia tumida</i>						1	1	1	1	1	1		1	1	1	1
<i>Acacia tumida var. pilbarensis</i>																
<i>Acacia tumida x Acacia sp?</i>																
<i>Achyranthes aspera</i>																
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>	1															
<i>Bauhinia cunninghamii</i>				1												
<i>Bonamia alatisemina</i>									1			1		1	1	
<i>Bonamia linearis</i>	1															
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>																
<i>Calandrinia strophiolata</i>						1										
<i>Calytrix carinata</i>					1							1	1		1	
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>											1					
<i>Cassytha filiformis</i>				1									1			
<i>Cenchrus ciliaris</i>				1						1						
<i>Cleome viscosa</i>	1	1	1	1												
<i>Clerodendron tomentosum</i>																

species	Q14 5	Q14 6	Q14 7	Q14 8	Q14 9	Q15 0	Q15 1	Q15 2	Q15 3	Q15 4	Q15 5	Q15 6	Q15 7	Q15 8	Q15 9	Q16 0
<i>Codonocarpus cotinifolius</i>												1				1
<i>Corchorus parviflorus</i>										1	1					
<i>Corchorus sidoides subsp. sidoides</i>	1			1	1	1	1	1	1	1	1	1	1	1		1
<i>Corymbia hammerslayana</i>															1	
<i>Corymbia zygophylla</i>						1			1	1	1	1	1			1
<i>Corynotheca micrantha</i>							1	1		1	1		1			
<i>Cucumis melo</i>	1			1			1	1		1	1	1	1	1	1	1
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>							1	1	1			1	1			1
<i>Dodonaea hispidula var. arida</i>															1	
<i>Dolichandrone heterophylla</i>				1	1					1				1		
<i>Duboisia hopwoodii</i>								1	1							
<i>Dysphania plantaginella</i>		1														
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>	1											1	1			1
<i>Erythrophleum chlorostachys</i>					1	1	1	1	1	1	1		1	1	1	1
<i>Eulalia aurea</i>												1	1			1
<i>Euphorbia australis</i>																
<i>Euphorbia drummondii</i>	1	1	1					1								
<i>Evolvulus alsinoides</i>					1		1		1	1	1	1	1	1	1	1
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>					1	1		1			1		1	1	1	
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>												1				
<i>Goodenia stobbsiana</i>																
<i>Gossypium australe</i>																
<i>Grevillea eriostachya</i>								1			1			1	1	
<i>Grevillea pyramidalis</i>				1	1	1	1						1	1		

species	Q14 5	Q14 6	Q14 7	Q14 8	Q14 9	Q15 0	Q15 1	Q15 2	Q15 3	Q15 4	Q15 5	Q15 6	Q15 7	Q15 8	Q15 9	Q16 0
<i>Grevillea wickhamii</i>																1
<i>Gyrostemon tepperi</i>						1				1		1	1	1	1	
<i>Hakea chordophylla</i>												1		1		
<i>Hakea macrocarpa</i>						1		1				1	1	1	1	
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>					1	1	1	1	1					1	1	1
<i>Heliotropium transforme</i>									1		1					
<i>Heliotropium vestitum</i>							1						1	1	1	
<i>Hemichroa diandra</i>		1	1													
<i>Hibiscus austrinus</i>																
<i>Hibiscus burtonii</i>														1		
<i>Hybanthus aurantiacus</i>					1	1	1	1	1	1	1	1	1	1	1	1
<i>Indigofera colutea</i>	1															
<i>Indigofera monophylla</i>							1			1	1					
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>				1	1	1			1	1	1	1	1		1	1
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>	1															
<i>Melaleuca glomerata</i>		1														
<i>Melaleuca lasiandra</i>	1			1												
<i>Mollugo molluginea</i>				1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Newcastelia cladotricha</i>								1								
<i>Owenia reticulata</i>																
<i>Panicum decompositum</i>		1	1													
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>												1		1	1	1
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>	1		1													

species	Q14 5	Q14 6	Q14 7	Q14 8	Q14 9	Q15 0	Q15 1	Q15 2	Q15 3	Q15 4	Q15 5	Q15 6	Q15 7	Q15 8	Q15 9	Q16 0
<i>Pluchea tetrantha</i>	1		1													
<i>Polymeria ambigua</i>										1			1	1		
<i>Portulaca oleracea</i>																
<i>Portulaca pilosa</i>						1	1		1	1						
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>				1	1	1	1	1	1	1	1	1	1		1	1
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>				1		1			1			1	1	1	1	1
<i>Ptilotus fusiformis</i>				1												
<i>Ptilotus nobilis</i>		1	1													
<i>Ptilotus polystachyus</i>									1		1		1	1		1
<i>Rhynchosia minima</i>							1									
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>								1		1	1					1
<i>Scaevola spinescens</i>	1		1													
<i>Senna glutinosa subsp. glutinosa</i>																
<i>Senna notabilis</i>								1	1	1		1	1			
<i>Seringia katatona</i>																
<i>Seringia sp indet.</i>					1				1				1			
<i>Sida arenicola</i>												1				
<i>Sida calyxhymentia</i>																
<i>Solanum dioicum</i>	1		1					1		1	1	1	1	1	1	1
<i>Solanum diversiflorum</i>							1	1		1		1	1	1	1	1
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>													1			
<i>Stemodia grossa</i>	1															
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>					1	1										

species	Q14 5	Q14 6	Q14 7	Q14 8	Q14 9	Q15 0	Q15 1	Q15 2	Q15 3	Q15 4	Q15 5	Q15 6	Q15 7	Q15 8	Q15 9	Q16 0
<i>Tephrosia leptoclada</i>																
<i>Tinospora smilacina</i>						1			1	1			1	1		
<i>Trachymene oleracea</i>																
<i>Trianthes pilosa</i>							1			1				1		
<i>Trianthes triquetra</i>		1	1													
<i>Trianthes turgidifolia</i>	1	1	1													
<i>Tribulopsis marliesiae</i>				1					1	1			1	1	1	1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>	1	1	1													
<i>Triodia schinzii</i>	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>								1	1		1				1	
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>																

species	Q16 1	Q16 2	Q16 3	Q16 4	Q16 5	Q16 6	Q16 7	Q16 8	Q16 9	Q17 0	Q17 1	Q17 2	Q17 3	Q17 4	Q17 5	Q17 6
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>		1	1	1	1	1		1	1	1		1	1	1	1	1
<i>Acacia coleii</i>		1	1		1	1	1	1	1	1			1	1	1	1
<i>Acacia eriopoda</i>																
<i>Acacia hillianiana</i>			1	1							1	1			1	1
<i>Acacia monticola</i>		1	1	1	1			1			1	1		1		
<i>Acacia ptychophylla</i>				1				1	1	1		1		1	1	1
<i>Acacia sericophylla</i>			1		1	1		1	1	1			1	1	1	
<i>Acacia stellaticeps</i>	1	1		1	1	1	1	1	1	1			1	1	1	1
<i>Acacia tumida</i>	1	1					1	1				1	1	1	1	
<i>Acacia tumida var. pilbarensis</i>											1					1
<i>Acacia tumida x Acacia sp?</i>																
<i>Achyranthes aspera</i>																
<i>Aerva javanica</i>																
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>													1	1		1
<i>Bonamia alatisemina</i>		1	1	1	1											
<i>Bonamia linearis</i>								1	1	1						
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>																
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>				1		1										
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>										1						1
<i>Cassutha filiformis</i>																
<i>Cenchrus ciliaris</i>		1			1										1	
<i>Cleome viscosa</i>		1		1			1	1	1	1	1		1	1	1	1
<i>Clerodendron tomentosum</i>																

species	Q16 1	Q16 2	Q16 3	Q16 4	Q16 5	Q16 6	Q16 7	Q16 8	Q16 9	Q17 0	Q17 1	Q17 2	Q17 3	Q17 4	Q17 5	Q17 6
<i>Codonocarpus cotinifolius</i>			1			1										
<i>Corchorus parviflorus</i>																
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1
<i>Corymbia hammerslayana</i>					1	1										
<i>Corymbia zygophylla</i>	1		1											1	1	1
<i>Corynotheca micrantha</i>																
<i>Cucumis melo</i>					1	1					1					
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>				1		1		1					1	1		
<i>Dodonaea hispidula</i> var. <i>arida</i>																
<i>Dolichandrone heterophylla</i>							1	1				1	1			1
<i>Duboisia hopwoodii</i>																
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>				1		1	1									
<i>Erythrophleum chlorostachys</i>	1			1	1		1	1	1	1			1	1	1	
<i>Eulalia aurea</i>	1						1	1								1
<i>Euphorbia australis</i>		1			1									1	1	1
<i>Euphorbia drummondii</i>								1	1	1	1	1		1		
<i>Evolvulus alsinoides</i>	1	1	1	1		1		1	1	1		1	1	1	1	1
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>	1						1									
<i>Gomphrena cunninghamii</i>											1					
<i>Goodenia azurea</i>			1	1												
<i>Goodenia stobbsiana</i>																
<i>Gossypium australe</i>																
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>	1						1									

species	Q16 1	Q16 2	Q16 3	Q16 4	Q16 5	Q16 6	Q16 7	Q16 8	Q16 9	Q17 0	Q17 1	Q17 2	Q17 3	Q17 4	Q17 5	Q17 6
<i>Grevillea wickhamii</i>		1										1				
<i>Gyrostemon tepperi</i>			1	1		1										
<i>Hakea chordophylla</i>		1				1										
<i>Hakea macrocarpa</i>	1		1	1	1	1		1								
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>	1	1	1			1	1									
<i>Heliotropium transforme</i>																
<i>Heliotropium vestitum</i>		1					1	1				1	1	1	1	1
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>																
<i>Hibiscus burtonii</i>		1									1	1			1	1
<i>Hybanthus aurantiacus</i>	1	1	1	1	1	1	1	1					1	1		
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>				1	1		1				1	1	1	1	1	1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>	1	1	1	1		1	1	1				1	1			
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>																
<i>Mollugo molluginea</i>	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1
<i>Newcastelia cladotricha</i>																
<i>Owenia reticulata</i>		1														
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>			1	1	1	1		1								
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																

species	Q16 1	Q16 2	Q16 3	Q16 4	Q16 5	Q16 6	Q16 7	Q16 8	Q16 9	Q17 0	Q17 1	Q17 2	Q17 3	Q17 4	Q17 5	Q17 6
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>											1			1		1
<i>Portulaca pilosa</i>					1	1	1				1	1	1	1	1	
<i>Ptilotus arthrolasius</i>								1					1			
<i>Ptilotus astrolasius</i>	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>	1	1	1	1	1	1		1	1	1	1	1	1			
<i>Ptilotus fusiformis</i>											1		1		1	1
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>		1														
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>																
<i>Scaevola spinescens</i>																
<i>Senna glutinosa subsp. glutinosa</i>																
<i>Senna notabilis</i>								1			1			1		1
<i>Seringia katatona</i>		1	1													
<i>Seringia sp indet.</i>				1												1
<i>Sida arenicola</i>			1	1	1			1					1	1		
<i>Sida calyxhymenia</i>					1						1	1				1
<i>Solanum dioicum</i>		1	1	1	1	1		1					1			
<i>Solanum diversiflorum</i>	1	1	1	1	1	1	1	1								
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>								1				1	1			1
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>		1														

species	Q16 1	Q16 2	Q16 3	Q16 4	Q16 5	Q16 6	Q16 7	Q16 8	Q16 9	Q17 0	Q17 1	Q17 2	Q17 3	Q17 4	Q17 5	Q17 6
<i>Tephrosia leptoclada</i>			1													
<i>Tinospora smilacina</i>		1		1	1										1	
<i>Trachymene oleracea</i>											1					
<i>Trianthema pilosa</i>		1		1	1							1		1		1
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Tribulopsis marliesiae</i>	1		1	1	1	1							1	1	1	
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1		1	1		1	1	1	1		1	1
<i>Triumfetta chaetocarpa</i>	1	1														
<i>Velleia panduriformis</i>			1													
<i>Zornia chaetophora</i>	1			1			1	1	1	1				1		

species	Q17 7	Q17 8	Q17 9	Q18 0	Q18 1	Q18 2	Q18 3	Q18 4	Q18 5	Q18 6	Q18 7	Q18 8	Q18 9	Q19 0	Q19 1	Q19 2
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1
<i>Acacia coleii</i>		1		1	1	1	1	1	1	1	1	1	1		1	1
<i>Acacia eriopoda</i>																
<i>Acacia hillianii</i>	1								1							
<i>Acacia monticola</i>	1		1	1			1			1		1				1
<i>Acacia ptychophylla</i>	1					1									1	1
<i>Acacia sericophylla</i>					1						1		1			1
<i>Acacia stellaticeps</i>			1	1	1	1	1	1	1						1	1
<i>Acacia tumida</i>					1		1									1
<i>Acacia tumida var. pilbarensis</i>	1			1							1		1	1		
<i>Acacia tumida x Acacia sp?</i>																
<i>Achyranthes aspera</i>				1												
<i>Aerva javanica</i>					1								1	1		
<i>Amaranthus undulatus</i>													1	1		
<i>Bauhinia cunninghamii</i>					1			1	1				1			1
<i>Bonamia alatisemina</i>							1	1								1
<i>Bonamia linearis</i>						1										1
<i>Bonamia oblongifolia</i>									1							
<i>Bonamia rosea</i>																
<i>Calandrinia strophiolata</i>							1									
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>								1								
<i>Carissa lanceolata</i>								1	1				1	1	1	
<i>Cassytha filiformis</i>																
<i>Cenchrus ciliaris</i>								1	1				1		1	1
<i>Cleome viscosa</i>	1	1	1	1	1	1		1		1			1		1	
<i>Clerodendron tomentosum</i>														1		

species	Q17 7	Q17 8	Q17 9	Q18 0	Q18 1	Q18 2	Q18 3	Q18 4	Q18 5	Q18 6	Q18 7	Q18 8	Q18 9	Q19 0	Q19 1	Q19 2
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>					1	1		1								
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1	1		1	1	1	1	1	1	1		1	1		1	1
<i>Corymbia hammerslayana</i>											1	1				1
<i>Corymbia zygophylla</i>		1		1	1				1							
<i>Corynotheca micrantha</i>							1									
<i>Cucumis melo</i>				1		1	1		1	1		1	1			1
<i>Cyanostegia cyanocalyx</i>		1			1		1									
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>		1			1		1		1		1					1
<i>Dodonaea hispidula</i> var. <i>arida</i>																
<i>Dolichandrone heterophylla</i>									1							
<i>Duboisia hopwoodii</i>					1											
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>			1		1											
<i>Erythrophleum chlorostachys</i>			1		1		1			1	1	1			1	
<i>Eulalia aurea</i>								1				1				
<i>Euphorbia australis</i>						1		1					1		1	
<i>Euphorbia drummondii</i>			1	1											1	
<i>Evolvulus alsinoides</i>	1		1	1	1			1	1	1	1	1	1	1	1	1
<i>Ficus brachypoda</i>															1	
<i>Gompholobium simplicifolium</i>					1		1									
<i>Gomphrena cunninghamii</i>														1		
<i>Goodenia azurea</i>											1					
<i>Goodenia stobbsiana</i>														1		
<i>Gossypium australe</i>														1	1	1
<i>Grevillea eriostachya</i>																
<i>Grevillea pyramidalis</i>						1	1									

species	Q17 7	Q17 8	Q17 9	Q18 0	Q18 1	Q18 2	Q18 3	Q18 4	Q18 5	Q18 6	Q18 7	Q18 8	Q18 9	Q18 0	Q19 1	Q19 2
<i>Grevillea wickhamii</i>															1	
<i>Gyrostemon tepperi</i>					1											
<i>Hakea chordophylla</i>							1					1			1	
<i>Hakea macrocarpa</i>					1										1	1
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>						1	1									
<i>Heliotropium transforme</i>																
<i>Heliotropium vestitum</i>						1	1									1
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>																
<i>Hibiscus burtonii</i>		1		1					1	1						1
<i>Hybanthus aurantiacus</i>			1		1		1		1	1		1				
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>	1	1	1	1		1				1	1	1	1		1	1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>		1			1		1			1		1				1
<i>Leptosema anomalum</i>		1														
<i>Melaleuca alsophila</i>																
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>								1	1							
<i>Mollugo molluginea</i>	1	1	1	1	1	1	1		1	1	1	1		1	1	
<i>Newcastelia cladotricha</i>																
<i>Owenia reticulata</i>																
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>					1					1						
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>								1								

species	Q17 7	Q17 8	Q17 9	Q18 0	Q18 1	Q18 2	Q18 3	Q18 4	Q18 5	Q18 6	Q18 7	Q18 8	Q18 9	Q19 0	Q19 1	Q19 2
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>											1					
<i>Portulaca oleracea</i>	1					1			1							1
<i>Portulaca pilosa</i>			1				1		1				1			1
<i>Ptilotus arthrolasius</i>							1									
<i>Ptilotus astrolasius</i>		1		1	1	1	1		1	1	1	1	1		1	1
<i>Ptilotus axillaris</i>								1						1		
<i>Ptilotus calostachyus</i>		1	1	1			1		1	1	1					1
<i>Ptilotus fusiformis</i>		1		1		1			1							1
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>				1	1	1										1
<i>Rhynchosia minima</i>														1		
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>						1	1									
<i>Scaevola spinescens</i>																
<i>Senna glutinosa subsp. glutinosa</i>												1				
<i>Senna notabilis</i>	1					1		1	1				1	1		
<i>Seringia katonata</i>																
<i>Seringia sp indet.</i>																
<i>Sida arenicola</i>		1					1			1						
<i>Sida calyxhymentia</i>	1			1									1	1	1	
<i>Solanum dioicum</i>						1					1	1				1
<i>Solanum diversiflorum</i>									1			1				1
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>	1	1								1						1
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>																

species	Q17 7	Q17 8	Q17 9	Q18 0	Q18 1	Q18 2	Q18 3	Q18 4	Q18 5	Q18 6	Q18 7	Q18 8	Q18 9	Q19 0	Q19 1	Q19 2
<i>Tephrosia leptoclada</i>																
<i>Tinospora smilacina</i>		1		1	1		1			1	1	1		1		
<i>Trachymene oleracea</i>														1		
<i>Trianthes pilosa</i>	1	1		1		1	1		1			1	1			
<i>Trianthes triquetra</i>																
<i>Trianthes turgidifolia</i>																
<i>Tribulopsis marliesiae</i>																1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>														1		
<i>Triodia epactia</i>								1								
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
<i>Triumfetta chaetocarpa</i>						1										
<i>Velleia panduriformis</i>														1		
<i>Zornia chaetophora</i>				1							1	1			1	

species	Q19 3	Q19 4	Q19 5	Q19 6	Q19 7	Q19 8	Q19 9	Q20 0	Q20 1	Q20 2	Q20 3	Q20 4	Q20 5	Q20 6	Q20 7	Q20 8
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia colei</i>	1		1		1	1	1	1	1	1	1	1	1	1	1	1
<i>Acacia eriopoda</i>																
<i>Acacia hilliana</i>																
<i>Acacia monticola</i>																
<i>Acacia ptychophylla</i>		1	1	1	1	1	1				1			1		1
<i>Acacia sericophylla</i>		1	1	1	1	1	1			1	1	1	1	1	1	1
<i>Acacia stellaticeps</i>	1	1	1	1	1	1	1		1		1	1	1	1	1	1
<i>Acacia tumida</i>	1		1		1											
<i>Acacia tumida var. pilbarensis</i>									1	1	1			1	1	
<i>Acacia tumida x Acacia sp?</i>																
<i>Achyranthes aspera</i>																
<i>Aerva javanica</i>													1			
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>	1				1	1	1		1	1	1	1	1	1		1
<i>Bonamia alatisemina</i>																
<i>Bonamia linearis</i>														1		
<i>Bonamia oblongifolia</i>																
<i>Bonamia rosea</i>						1										
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>																
<i>Capparis umbonata</i>																
<i>Carissa lanceolata</i>	1				1	1	1	1	1		1		1	1		
<i>Cassytha filiformis</i>	1					1										
<i>Cenchrus ciliaris</i>	1	1	1		1	1						1	1		1	1
<i>Cleome viscosa</i>	1	1		1	1	1	1	1	1	1	1	1	1	1	1	
<i>Clerodendron tomentosum</i>						1			1				1			

species	Q19 3	Q19 4	Q19 5	Q19 6	Q19 7	Q19 8	Q19 9	Q20 0	Q20 1	Q20 2	Q20 3	Q20 4	Q20 5	Q20 6	Q20 7	Q20 8
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>																
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1	1		1	1	1	1	1	1			1	1	1	1	1
<i>Corymbia hammerslayana</i>			1						1	1			1		1	1
<i>Corymbia zygophylla</i>																
<i>Corynotheca micrantha</i>																
<i>Cucumis melo</i>	1				1	1	1	1	1	1	1		1	1	1	1
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>																
<i>Dodonaea coriacea</i>	1				1	1		1				1				
<i>Dodonaea hispidula</i> var. <i>arida</i>					1	1										
<i>Dolichandrone heterophylla</i>	1	1			1	1	1						1	1		1
<i>Duboisia hopwoodii</i>																
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>																
<i>Eragrostis falcata</i>																
<i>Erythrophleum chlorostachys</i>	1	1	1	1	1			1	1				1	1		
<i>Eulalia aurea</i>													1		1	
<i>Euphorbia australis</i>		1				1										
<i>Euphorbia drummondii</i>		1	1					1					1	1	1	
<i>Evolvulus alsinoides</i>		1	1	1	1	1	1	1	1	1		1	1	1	1	1
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>																
<i>Gomphrena cunninghamii</i>																
<i>Goodenia azurea</i>																
<i>Goodenia stobbsiana</i>																
<i>Gossypium australe</i>									1			1	1			
<i>Grevillea eriostachya</i>									1							
<i>Grevillea pyramidalis</i>		1			1											1

species	Q19 3	Q19 4	Q19 5	Q19 6	Q19 7	Q19 8	Q19 9	Q20 0	Q20 1	Q20 2	Q20 3	Q20 4	Q20 5	Q20 6	Q20 7	Q20 8
<i>Grevillea wickhamii</i>																
<i>Gyrostemon tepperi</i>																
<i>Hakea chordophylla</i>							1									
<i>Hakea macrocarpa</i>	1	1			1				1							
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>	1				1						1	1		1	1	
<i>Heliotropium transforme</i>																
<i>Heliotropium vestitum</i>	1	1			1			1	1			1				
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>										1			1		1	
<i>Hibiscus burtonii</i>							1							1		1
<i>Hybanthus aurantiacus</i>	1	1			1	1			1		1	1	1	1	1	
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>	1		1	1		1	1	1	1	1	1	1	1	1	1	1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>	1	1	1	1	1	1						1	1	1		
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>																
<i>Mollugo molluginea</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Newcastelia cladotricha</i>																
<i>Owenia reticulata</i>																
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>																
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																

species	Q19 3	Q19 4	Q19 5	Q19 6	Q19 7	Q19 8	Q19 9	Q20 0	Q20 1	Q20 2	Q20 3	Q20 4	Q20 5	Q20 6	Q20 7	Q20 8
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>																
<i>Portulaca oleracea</i>	1				1			1					1			
<i>Portulaca pilosa</i>	1				1		1		1		1		1	1	1	
<i>Ptilotus arthrolasius</i>									1							
<i>Ptilotus astrolasius</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>	1		1	1	1	1			1	1	1	1	1		1	1
<i>Ptilotus fusiformis</i>	1				1		1			1	1	1	1			
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>	1	1			1							1			1	
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>			1													
<i>Scaevola spinescens</i>																
<i>Senna glutinosa subsp. glutinosa</i>																
<i>Senna notabilis</i>				1	1			1				1	1	1		1
<i>Seringia katatona</i>																
<i>Seringia sp indet.</i>			1	1			1					1	1			
<i>Sida arenicola</i>					1	1						1	1	1	1	
<i>Sida calyxhymentia</i>	1															
<i>Solanum dioicum</i>	1				1	1	1		1	1	1	1	1	1	1	1
<i>Solanum diversiflorum</i>	1				1	1					1		1		1	
<i>Solanum esuriale</i>																1
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>	1	1		1												
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>								1								

species	Q19 3	Q19 4	Q19 5	Q19 6	Q19 7	Q19 8	Q19 9	Q20 0	Q20 1	Q20 2	Q20 3	Q20 4	Q20 5	Q20 6	Q20 7	Q20 8
<i>Tephrosia leptoclada</i>																1
<i>Tinospora smilacina</i>				1		1	1			1			1			1
<i>Trachymene oleracea</i>																
<i>Trianthes pilosa</i>	1				1	1	1	1	1			1	1	1	1	1
<i>Trianthes triquetra</i>																
<i>Trianthes turgidifolia</i>																
<i>Tribulopsis marliesiae</i>	1	1		1	1	1	1	1	1		1	1			1	1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>																
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>	1			1		1	1									1

species	Q20 9	Q21 0	Q21 1	Q21 2	Q21 3	Q21 4	Q21 6	Q21 5	Q21 7	Q21 8	Q218 A	Q219 A	Q21 9	Q22 0	Q22 1	Q22 2
<i>Acacia ampliceps</i>																
<i>Acacia ancistrocarpa</i>	1		1		1	1	1	1	1				1	1	1	
<i>Acacia coleii</i>	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
<i>Acacia eriopoda</i>																
<i>Acacia hilliana</i>											1	1				
<i>Acacia monticola</i>					1	1	1		1				1	1	1	1
<i>Acacia ptychophylla</i>		1	1													
<i>Acacia sericophylla</i>	1				1	1	1		1	1			1			
<i>Acacia stellaticeps</i>	1	1	1	1				1	1	1	1	1				1
<i>Acacia tumida</i>							1		1	1	1					
<i>Acacia tumida var. pilbarensis</i>																1
<i>Acacia tumida x Acacia sp?</i>							1									
<i>Achyranthes aspera</i>											1					
<i>Aerva javanica</i>		1	1	1				1				1				
<i>Amaranthus undulatus</i>																
<i>Bauhinia cunninghamii</i>	1	1	1	1								1				
<i>Bonamia alatisemina</i>																
<i>Bonamia linearis</i>		1	1	1		1	1	1			1	1				
<i>Bonamia oblongifolia</i>			1	1												
<i>Bonamia rosea</i>																
<i>Calandrinia strophiolata</i>																
<i>Calytrix carinata</i>											1					
<i>Capparis umbonata</i>				1												
<i>Carissa lanceolata</i>	1	1	1					1			1	1				
<i>Cassytha filiformis</i>									1							
<i>Cenchrus ciliaris</i>	1	1	1	1					1	1		1	1			
<i>Cleome viscosa</i>		1	1	1				1	1				1	1	1	1
<i>Clerodendron tomentosum</i>																

species	Q209	Q210	Q211	Q212	Q213	Q214	Q216	Q215	Q217	Q218	Q218A	Q219A	Q219	Q220	Q221	Q222
<i>Codonocarpus cotinifolius</i>																
<i>Corchorus parviflorus</i>		1		1								1				
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	1	1	1	1	1	1	1	1	1		1		1	1	1	1
<i>Corymbia hammerslayana</i>											1		1			
<i>Corymbia zygophylla</i>					1			1	1	1			1		1	
<i>Corynotheca micrantha</i>											1					
<i>Cucumis melo</i>			1	1	1		1	1	1		1	1	1	1	1	1
<i>Cyanostegia cyanocalyx</i>																
<i>Dampiera candidans</i>											1					
<i>Dodonaea coriacea</i>					1	1					1	1				
<i>Dodonaea hispidula</i> var. <i>arida</i>								1			1					
<i>Dolichandrone heterophylla</i>		1						1	1	1						
<i>Duboisia hopwoodii</i>										1						
<i>Dysphania plantaginella</i>																
<i>Ehretia saligna</i>												1				
<i>Eragrostis falcata</i>				1												
<i>Erythrophleum chlorostachys</i>							1		1	1				1	1	1
<i>Eulalia aurea</i>																
<i>Euphorbia australis</i>	1	1	1	1					1			1	1			1
<i>Euphorbia drummondii</i>	1	1	1	1					1		1					
<i>Evolvulus alsinoides</i>	1	1	1	1	1	1		1	1	1	1	1		1	1	
<i>Ficus brachypoda</i>																
<i>Gompholobium simplicifolium</i>										1	1					
<i>Gomphrena cunninghamii</i>											1	1				
<i>Goodenia azurea</i>													1			
<i>Goodenia stobbsiana</i>											1	1				
<i>Gossypium australe</i>						1					1	1				
<i>Grevillea eriostachya</i>										1						
<i>Grevillea pyramidalis</i>	1										1	1				

species	Q209	Q210	Q211	Q212	Q213	Q214	Q216	Q215	Q217	Q218	Q218A	Q219A	Q219	Q220	Q221	Q222
<i>Grevillea wickhamii</i>										1						
<i>Gyrostemon tepperi</i>								1		1						
<i>Hakea chordophylla</i>									1	1						
<i>Hakea macrocarpa</i>																
<i>Halgania erecta</i>																
<i>Halgania solanacea</i>					1	1		1	1							1
<i>Heliotropium transforme</i>																
<i>Heliotropium vestitum</i>					1	1	1	1	1							
<i>Hemichroa diandra</i>																
<i>Hibiscus austrinus</i>	1	1	1	1								1				1
<i>Hibiscus burtonii</i>	1	1						1	1				1		1	1
<i>Hybanthus aurantiacus</i>					1	1	1	1		1	1	1	1	1	1	1
<i>Indigofera colutea</i>																
<i>Indigofera monophylla</i>	1	1			1	1	1	1	1		1	1	1	1	1	1
<i>Indigofera oblongifolia</i>																
<i>Ipomoea muelleri</i>																
<i>Jacksonia aculeata</i>	1					1										1
<i>Leptosema anomalum</i>																
<i>Melaleuca alsophila</i>																
<i>Melaleuca glomerata</i>																
<i>Melaleuca lasiandra</i>			1	1												
<i>Mollugo molluginea</i>	1				1	1	1	1	1	1	1		1	1	1	1
<i>Newcastelia cladotricha</i>												1				
<i>Owenia reticulata</i>																
<i>Panicum decompositum</i>																
<i>Persoonia falcata</i>																
<i>Phyllanthus eremicus</i>					1	1	1				1	1	1		1	1
<i>Pluchea dentex</i>																
<i>Pluchea ferdinandi-muelleri</i>																

species	Q20 9	Q21 0	Q21 1	Q21 2	Q21 3	Q21 4	Q21 6	Q21 5	Q21 7	Q21 8	Q218 A	Q219 A	Q21 9	Q22 0	Q22 1	Q22 2
<i>Pluchea tetrantha</i>																
<i>Polymeria ambigua</i>	1										1					1
<i>Portulaca oleracea</i>	1	1	1								1			1		1
<i>Portulaca pilosa</i>			1	1				1		1			1			
<i>Ptilotus arthrolasius</i>																
<i>Ptilotus astrolasius</i>	1	1			1	1	1	1	1	1			1	1	1	1
<i>Ptilotus axillaris</i>																
<i>Ptilotus calostachyus</i>					1	1					1	1	1	1	1	1
<i>Ptilotus fusiformis</i>																1
<i>Ptilotus nobilis</i>																
<i>Ptilotus polystachyus</i>		1	1	1			1	1								
<i>Rhynchosia minima</i>																
<i>Santalum lanceolatum</i>																
<i>Scaevola parvifolia</i>								1								
<i>Scaevola spinescens</i>																
<i>Senna glutinosa subsp. glutinosa</i>					1											
<i>Senna notabilis</i>	1	1	1	1				1			1	1				
<i>Seringia katonata</i>																
<i>Seringia sp indet.</i>											1					
<i>Sida arenicola</i>	1	1	1		1	1	1	1			1		1		1	1
<i>Sida calyxhymentia</i>		1	1										1			
<i>Solanum dioicum</i>				1	1	1	1				1	1	1	1		1
<i>Solanum diversiflorum</i>					1	1	1	1		1			1	1		1
<i>Solanum esuriale</i>																
<i>Solanum lucani</i>																
<i>Spermacoce occidentalis</i>						1										1
<i>Stemodia grossa</i>																
<i>Streptoglossa tenuiflora</i>																
<i>Stylobasium australe</i>				1												

species	Q209	Q210	Q211	Q212	Q213	Q214	Q216	Q215	Q217	Q218	Q218A	Q219A	Q219	Q220	Q221	Q222
<i>Tephrosia leptoclada</i>	1	1					1						1	1		1
<i>Tinospora smilacina</i>			1				1	1	1	1	1		1		1	
<i>Trachymene oleracea</i>					1						1	1				
<i>Trianthema pilosa</i>	1	1	1	1				1			1					1
<i>Trianthema triquetra</i>																
<i>Trianthema turgidifolia</i>																
<i>Tribulopsis marliesiae</i>							1		1	1						
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>																
<i>Trichosanthes cucumerina</i>																
<i>Triodia epactia</i>																
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1			1	1	1	1
<i>Triumfetta chaetocarpa</i>																
<i>Velleia panduriformis</i>																
<i>Zornia chaetophora</i>													1			

species	Q223	Q224	Q225	Q226	Q227	Q228	Q229	Q230	Q231	Q232	Q233	Q234	Q235	Q240
<i>Acacia ampliceps</i>														1
<i>Acacia ancistrocarpa</i>	1	1	1			1	1	1	1	1	1	1	1	
<i>Acacia colei</i>	1	1		1	1	1	1	1	1	1		1	1	1
<i>Acacia eriopoda</i>														
<i>Acacia hilliana</i>		1	1	1		1								
<i>Acacia monticola</i>			1	1	1	1	1					1	1	
<i>Acacia ptychophylla</i>	1									1	1			
<i>Acacia sericophylla</i>	1		1			1		1	1	1	1			
<i>Acacia stellaticeps</i>	1	1			1			1	1	1	1	1		1
<i>Acacia tumida</i>	1				1			1						
<i>Acacia tumida var. pilbarensis</i>	1				1								1	
<i>Acacia tumida x Acacia sp?</i>														
<i>Achyranthes aspera</i>									1				1	
<i>Aerva javanica</i>						1								
<i>Amaranthus undulatus</i>														
<i>Bauhinia cunninghamii</i>		1				1				1				
<i>Bonamia alatisemina</i>														1
<i>Bonamia linearis</i>		1			1		1							
<i>Bonamia oblongifolia</i>														
<i>Bonamia rosea</i>														
<i>Calandrinia strophiolata</i>														
<i>Calytrix carinata</i>														
<i>Capparis umbonata</i>														
<i>Carissa lanceolata</i>		1	1		1	1			1					
<i>Cassytha filiformis</i>														
<i>Cenchrus ciliaris</i>						1	1			1				
<i>Cleome viscosa</i>	1	1	1	1	1	1	1				1	1	1	1
<i>Clerodendron tomentosum</i>														

species	Q223	Q224	Q225	Q226	Q227	Q228	Q229	Q230	Q231	Q232	Q233	Q234	Q235	Q240
<i>Codonocarpus cotinifolius</i>														1
<i>Corchorus parviflorus</i>				1										1
<i>Corchorus sidoides subsp. sidoides</i>	1	1	1		1	1	1	1	1	1	1	1	1	1
<i>Corymbia hammerslayana</i>									1	1				
<i>Corymbia zygophylla</i>		1			1			1				1	1	
<i>Corynotheca micrantha</i>														
<i>Cucumis melo</i>		1	1	1	1		1	1	1	1		1	1	
<i>Cyanostegia cyanocalyx</i>														
<i>Dampiera candidans</i>														
<i>Dodonaea coriacea</i>	1							1						
<i>Dodonaea hispidula var. arida</i>														
<i>Dolichandrone heterophylla</i>		1						1	1	1				
<i>Duboisia hopwoodii</i>														
<i>Dysphania plantaginella</i>														
<i>Ehretia saligna</i>														
<i>Eragrostis falcata</i>														
<i>Erythrophleum chlorostachys</i>		1			1		1	1	1		1		1	
<i>Eulalia aurea</i>								1						1
<i>Euphorbia australis</i>					1	1								
<i>Euphorbia drummondii</i>		1			1	1			1			1		1
<i>Evolvulus alsinoides</i>	1	1	1		1		1	1	1	1	1	1	1	1
<i>Ficus brachypoda</i>														
<i>Gompholobium simplicifolium</i>								1						
<i>Gomphrena cunninghamii</i>				1		1								
<i>Goodenia azurea</i>														
<i>Goodenia stobbsiana</i>			1	1		1								
<i>Gossypium australe</i>					1									
<i>Grevillea eriostachya</i>														
<i>Grevillea pyramidalis</i>				1		1				1				1
<i>Grevillea wickhamii</i>														

species	Q223	Q224	Q225	Q226	Q227	Q228	Q229	Q230	Q231	Q232	Q233	Q234	Q235	Q240
<i>Gyrostemon tepperi</i>														
<i>Hakea chordophylla</i>														
<i>Hakea macrocarpa</i>														
<i>Halgania erecta</i>								1						
<i>Halgania solanacea</i>								1						
<i>Heliotropium transforme</i>														1
<i>Heliotropium vestitum</i>		1			1									
<i>Hemichroa diandra</i>														
<i>Hibiscus austrinus</i>		1	1	1										
<i>Hibiscus burtonii</i>		1			1		1			1		1	1	1
<i>Hybanthus aurantiacus</i>	1	1		1		1		1	1				1	
<i>Indigofera colutea</i>														1
<i>Indigofera monophylla</i>	1	1	1	1	1	1	1		1	1	1	1	1	1
<i>Indigofera oblongifolia</i>														
<i>Ipomoea muelleri</i>						1								
<i>Jacksonia aculeata</i>	1							1	1		1		1	
<i>Leptosema anomalum</i>														
<i>Melaleuca alsophila</i>														
<i>Melaleuca glomerata</i>														
<i>Melaleuca lasiandra</i>														1
<i>Mollugo molluginea</i>	1	1	1	1	1		1		1		1	1	1	1
<i>Newcastelia cladotricha</i>														
<i>Owenia reticulata</i>														1
<i>Panicum decompositum</i>														
<i>Persoonia falcata</i>														
<i>Phyllanthus eremicus</i>													1	
<i>Pluchea dentex</i>														
<i>Pluchea ferdinandi-muelleri</i>														
<i>Pluchea tetrantha</i>														
<i>Polymeria ambigua</i>									1					

species	Q223	Q224	Q225	Q226	Q227	Q228	Q229	Q230	Q231	Q232	Q233	Q234	Q235	Q240
<i>Portulaca oleracea</i>	1													
<i>Portulaca pilosa</i>	1	1	1	1	1	1	1							1
<i>Ptilotus arthrolasius</i>														1
<i>Ptilotus astrolasius</i>	1	1	1		1			1	1	1	1	1	1	
<i>Ptilotus axillaris</i>														1
<i>Ptilotus calostachyus</i>	1	1	1	1		1	1		1	1	1	1	1	
<i>Ptilotus fusiformis</i>					1							1		
<i>Ptilotus nobilis</i>														
<i>Ptilotus polystachyus</i>		1			1							1		
<i>Rhynchosia minima</i>														
<i>Santalum lanceolatum</i>														
<i>Scaevola parvifolia</i>	1													
<i>Scaevola spinescens</i>														
<i>Senna glutinosa subsp. glutinosa</i>			1	1		1								
<i>Senna notabilis</i>			1		1					1	1			1
<i>Seringia katatona</i>														
<i>Seringia sp indet.</i>														
<i>Sida arenicola</i>		1	1	1		1	1				1		1	
<i>Sida calyxhymenia</i>			1	1		1						1		
<i>Solanum dioicum</i>						1		1	1	1				
<i>Solanum diversiflorum</i>		1			1		1	1	1					1
<i>Solanum esuriale</i>														
<i>Solanum lucani</i>														
<i>Spermacoce occidentalis</i>		1	1		1						1		1	
<i>Stemodia grossa</i>														
<i>Streptoglossa tenuiflora</i>														
<i>Stylobasium australe</i>														
<i>Tephrosia leptoclada</i>		1	1	1			1		1					
<i>Tinospora smilacina</i>				1	1			1	1		1	1	1	
<i>Trachymene oleracea</i>			1	1		1								

species	Q223	Q224	Q225	Q226	Q227	Q228	Q229	Q230	Q231	Q232	Q233	Q234	Q235	Q240
<i>Trianthesa pilosa</i>	1			1						1		1		
<i>Trianthesa triquetra</i>														
<i>Trianthesa turgidifolia</i>														
<i>Tribulopsis marliesiae</i>	1	1						1			1			1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>														
<i>Trichosanthes cucumerina</i>														
<i>Triodia epactia</i>														
<i>Triodia schinzii</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Triumfetta chaetocarpa</i>														
<i>Velleia panduriformis</i>														
<i>Zornia chaetophora</i>												1		

APPENDIX G. STRUCTURAL PLANT COMMUNITY DESCRIPTIONS

Pindan Shrublands

Pindan shrublands occur on red or red-brown sands dominated by *Acacia* species and are located at a higher elevation in the landscape than the adjacent coastal plain vegetation types. These shrublands are often dense and are typically in good to very good ecological condition with grazing and trampling being mostly localised and more common in areas adjacent to Ramsar shrublands and grasslands (Plates 17 and 18).



Plate 17: *Acacia stellaticeps* low shrubland.



Plate 18: Grazed and trampled *A. stellaticeps* shrubland

Coastal Plain Wet Thickets and Shrublands

Coastal Plain wet thickets and shrublands occur predominantly in the Ramsar section of the study area on grey to white clayey silty soil and brown sandy loam, at a lower elevation in the landscape compared with the Pindan shrublands.

They consist of *Melaleuca alsophila* and *Acacia ampliceps* thickets/shrublands (to 6m) over grasses (*Sporobolus australasicus*, *Cenchrus ciliaris*), low herbs (commonly *Pluchea* spp. *Trianthema* spp.) and disturbed bare ground, on grey/white clays which are seasonally wet and may be occasionally flooded (Plates 19 and 20).

Melaleuca alsophila resprouts after fire while *Acacia ampliceps* is apparently killed by fire. Shrublands of *Acacia ampliceps* therefore often represent single (or few) recruitment events giving rise to equal aged and similarly sized plants within the community (Plates 21 and 22). Grazing and trampling by cattle is localised and the community type is in good to very good ecological condition.



Plate 19: *Melaleuca alsophila* thicket



Plate 20: *Acacia ampliceps* tall shrubland.



Plate 21: *Acacia ampliceps* shrubland with cattle damage.



Plate 22: *Acacia ampliceps* low shrubland.

Coastal Plain Grasslands and Low Shrublands

Coastal Plain grasslands and low shrublands occur predominantly in the Ramsar section of the study area on grey to white clayey silty soil, at a lower elevation in the landscape compared with the Pindan shrublands. These grasslands form a mosaic with the coastal plain thickets and shrublands described above.

They consist of grasses (*Cenchrus ciliaris*, *Sporobolus australasicus*, *Eragrostis* sp., *Whiteochloa airoides*) and low shrubs to 1.5m (*Indigofera oblongifolia*, *Salsola australis*, *Trianthema* spp., *Triodia* spp.) which are sparse to dense in cover, and occur on grey/white clays (Plates 23 and 24). Some areas are likely to be seasonally wet and may occasionally flood after heavy prolonged rainfall.

These areas often grazed and trampled by cattle (Plate 25). They vary from poor to very good in ecological condition.



Plate 23: *Cenchrus ciliaris* grassland.



Plate 24: *Indigofera oblongifolia* very open shrubland over grassland/herbland



Plate 25: Grazed and trampled *Indigofera oblongifolia* shrubland.

Salt Pans

Salt pans occur in minor depressions in the landscape within the Ramsar section of the study area at slightly lower elevation than surrounding areas on grey to white clay. These depressions naturally collect rainfall from surrounding areas after rainfall and evaporation results in the build-up of salts over time.

They consist of bare salt pan areas and associated low samphire, herblands and shrublands (*Trianthema turgidifolia*, *T. pilosa*, *Tecticornia auriculata*, *Frankenia ambiata*, *Salsola australis*).

They are likely to be seasonally wet and subject to occasional flooding after heavy prolonged rainfall (Plates 26 and 27).

The community occurs on grey/white clays. Ecological condition varies from poor to good with cattle damage being the main disturbance (Plate 28).



Plate 26: Salt Pan.



Plate 27: Samphire low shrubland/herbland.



Plate 28: Salt pan with cattle footprints

Limestone Ridges

Low limestone ridges occur in localised areas to the north of the Stage 2 and 3 development envelopes with limestone cap rock visible at the surface. They are sparsely vegetated and occur with shallow red or brown sands.

Common plant species include *Ptilotus axillaris*, *Trianthema* spp., *Cenchrus ciliaris* and *Cleome uncifera* with occasional emergent shrubs of, *Acacia coleii* and *A. stellaticeps*.

These areas are mostly in poor ecological condition (Plate 29). Cattle grazing and trampling are the main disturbances.



Plate 29: Grazed low Limestone Ridge.

Pindan Open Woodlands

Pindan open woodlands (Plates 30 and 31) occurring the south east of the study area coinciding with the Stage 4 project area. Covers areas higher in the landscape than Acacia Shrublands and consist of low open woodland over a low mixed-species shrubland. It consists of a very open Low Woodland (*Bauhinia cunninghamii*, *Owenia reticulata*, *Dolichandrone heterophylla* and *Erythrophleum chlorostachys*) over low scrub to 2m (*Acacia ancistrocarpa*, *Acacia eriopoda*, *Acacia colei*, *Acacia stellaticeps*, *Calytrix carinata*, *Gompholobium simplicifolium*, *Grevillea eriostachya* and *Carissa lanceolata*), over a variable groundlayer of low grasses (*Eragrostis falcata*, *Triodia schinzii*) shrubs and herbs (*Euphorbia australis*, *Euphorbia drummondii*, *Solanum dioicum*, *Evolvulus alsinoides*, *Trianthema pilosa*, *Tribulopsis marliesiae* and others). The community is in good-very good ecological condition with grazing being a minor disturbance.



Plate 30: Pindan Open Woodland/Shrubland 1



Plate 31: Pindan Open Woodland/Shrubland 2

Completely degraded

Vegetation is completely degraded around stock watering points, within irrigation pivots and when adjacent to agricultural structures (e.g. fence lines, tracks, buildings, see Plate 32).



Plate 32: Completely degraded vegetation caused by grazing at a watering point

APPENDIX I. PARDOO SPECIES LIST

Family	Species
Aizoaceae	<i>Trianthema pilosum</i>
	<i>Trianthema triquetra</i>
	<i>Trianthema turgidifolia</i>
Amaranthaceae	<i>Achyranthes aspera</i>
	<i>Aerva javanica*</i>
	<i>Amaranthus undulatus</i>
	<i>Gomphrena cunninghamii</i>
	<i>Ptilotus arthrolasius</i>
	<i>Ptilotus astrolasius</i>
	<i>Ptilotus axillaris</i>
	<i>Ptilotus calostachyus</i>
	<i>Ptilotus fusiformis</i>
	<i>Ptilotus nobilis var nobilis</i>
	<i>Ptilotus polystachyus</i>
	<i>Surreya diandra</i>
Apocynaceae	<i>Calotropis procera *</i>
	<i>Carissa lanceolata</i>
Araliaceae	<i>Trachymene oleracea</i>
Asteraceae	<i>Pluchea dentex</i>
	<i>Pluchea ferdinandi-muelleri</i>
	<i>Pluchea tetrantha</i>
	<i>Pterocaulon sphacelatum</i>
	<i>Streptoglossa tenuiflora</i>
Bignoniaceae	<i>Dolichandrone heterophylla</i>
Boraginaceae	<i>Ehretia saligna</i>
	<i>Halgania erecta</i>
	<i>Halgania solanacea</i>
	<i>Heliotropium leptaleum</i>
	<i>Heliotropium transforme</i>
	<i>Heliotropium vestitum</i>
	<i>Trichodesma zeylanicum var. zeylanicum</i>
Capparaceae	<i>Capparis umbonata</i>
Chenopodiaceae	<i>Dysphania plantaginella</i>
	<i>Neobassia astrocarpa</i>
	<i>Salsola tragus</i>
	<i>Tecticornia auriculata</i>
Cleomaceae	<i>Cleome uncifera</i>
	<i>Cleome viscosa</i>
Convolvulaceae	<i>Bonamia alatisemina</i>
	<i>Bonamia erecta</i>
	<i>Bonamia linearis</i>

Family	Species
	<i>Bonamia oblongifolia</i>
	<i>Bonamia rosea</i>
	<i>Evolvulus alsinoides</i>
	<i>Ipomoea muelleri</i>
	<i>Polymeria ambigua</i>
Cucurbitaceae	<i>Cucumis melo</i>
	<i>Cucumis variabilis</i>
	<i>Trichosanthes cucumerina</i>
Euphorbiaceae	<i>Euphorbia australis</i>
	<i>Euphorbia drummondii</i>
Fabaceae	<i>Acacia ampliceps</i>
	<i>Acacia ancistrocarpa</i>
	<i>Acacia colei</i>
	<i>Acacia dictyophleba</i>
	<i>Acacia drepanocarpa subsp. drepanocarpa</i>
	<i>Acacia eriopoda</i>
	<i>Acacia hilliana</i>
	<i>Acacia monticola</i>
	<i>Acacia ptychophylla</i>
	<i>Acacia sericophylla</i>
	<i>Acacia stellaticeps</i>
	<i>Acacia tumida var pilbarensis</i>
	<i>Bauhinia cunninghamii</i>
	<i>Erythrophleum chlorostachys</i>
	<i>Gompholobium simplicifolium</i>
	<i>Indigofera colutea</i>
	<i>Indigofera linnaei</i>
	<i>Indigofera monophylla</i>
	<i>Indigofera oblongifolia</i>
	<i>Jacksonia aculeata</i>
	<i>Leptosema anomalum</i>
	<i>Rhynchosia minima</i>
	<i>Senna artemisioides subsp. helmsii</i>
	<i>Senna curvistyla</i>
	<i>Senna glutinosa subsp. glutinosa</i>
	<i>Senna notabilis</i>
	<i>Senna venusta</i>
	<i>Swainsona pterostylis</i>
	<i>Tephrosia leptoclada</i>
	<i>Zornia chaetophora</i>
Frankeniaceae	<i>Frankenia ambita</i>
Goodeniaceae	<i>Dampiera candidans</i>
	<i>Goodenia azurea</i>
	<i>Goodenia microptera</i>
	<i>Goodenia stobbsiana</i>

Family	Species
	<i>Scaevola parvifolia</i> var <i>parvifolia</i>
	<i>Scaevola spinescens</i>
	<i>Velleia panduriformis</i>
Gyrostemonaceae	<i>Codonocarpus cotinifolius</i>
	<i>Gyrostemon tepperi</i>
Hemerocallidaceae	<i>Corynotheca micrantha</i>
Lamiaceae	<i>Clerodendron tomentosum</i>
	<i>Cyanostegia cyanocalyx</i>
	<i>Newcastelia cladotricha</i>
Lauraceae	<i>Cassytha filiformis</i>
Malvaceae	<i>Abutilon indicum</i>
	<i>Abutilon lepidum</i>
	<i>Abutilon otoparpum</i>
	<i>Corchorus parviflorus</i>
	<i>Corchorus sidoides</i> subsp. <i>sidoides</i>
	<i>Gossypium australe</i>
	<i>Hibiscus austrinus</i>
	<i>Hibiscus burtonii</i>
	<i>Melhania oblongifolia</i>
	<i>Seringia elliptica</i>
	<i>Seringia katatona</i>
	<i>Seringia nephrosperma</i>
	<i>Sida arenicola</i>
	<i>Sida calyxhymenia</i>
	<i>Triumfetta chaetocarpa</i>
	<i>Owenia reticulata</i>
Menispermaceae	<i>Tinospora smilacina</i>
Molluginaceae	<i>Mollugo molluginis</i>
Moraceae	<i>Ficus brachypoda</i>
Myrtaceae	<i>Calytrix carinata</i>
	<i>Corymbia hammerslayana</i>
	<i>Corymbia zygophylla</i>
	<i>Melaleuca alsophila</i>
	<i>Melaleuca glomerata</i>
	<i>Melaleuca lasiandra</i>
Phyllanthaceae	<i>Phyllanthus eremicus</i>
Plantaginaceae	<i>Stemodia grossa</i>
	<i>Stemodia lathraia</i>
Poaceae	<i>Aristida inaequiglumis</i>
	<i>Cenchrus ciliaris</i> *
	<i>Enneapogon purpurascens</i>
	<i>Eragrostis falcata</i>
	<i>Eulalia aurea</i>
	<i>Panicum decompositum</i>
	<i>Sporobolus australasicus</i>

Family	Species
	<i>Triodia epactia</i>
	<i>Triodia schinzii</i>
	<i>Xerochloa barbata</i>
Portulacaceae	<i>Calandrinia strophiolata</i>
	<i>Portulaca oleracea</i>
	<i>Portulaca pilosa</i>
Proteaceae	<i>Grevillea eriostachya</i>
	<i>Grevillea pyramidalis</i>
	<i>Grevillea refracta</i>
	<i>Grevillea wickhamii</i>
	<i>Hakea chordophylla</i>
	<i>Hakea macrocarpa</i>
	<i>Persoonia falcata</i>
Rubiaceae	<i>Spermacoce occidentalis</i>
Santalaceae	<i>Santalum lanceolatum</i>
Sapindaceae	<i>Dodonaea coriacea</i>
	<i>Dodonaea hispidula var arida</i>
Solanaceae	<i>Duboisia hopwoodii</i>
	<i>Nicotiana rosulata subsp. rosulata</i>
	<i>Solanum dioicum</i>
	<i>Solanum diversiflorum</i>
	<i>Solanum esuriale</i>
	<i>Solanum lucani</i>
Stylobasiaceae	<i>Stylobasium australe</i>
Tamaricaceae	<i>Tamarix aphylla*</i>
Thymeleaceae	<i>Pimelea ammocharis</i>
Violaceae	<i>Hybanthus aurantiacus</i>
Zygophyllaceae	<i>Tribulopsis marliesiae</i>
	<i>Tribulus occidentalis</i>