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Executive Summary

Cardno (WA) Pty Ltd was commissioned by Fortescue Metals Group (Fortescue) to undertake a Level 2 Flora and Vegetation survey in accordance with EPA Guidance Statement 51 (2004) as part of an assessment of the flora and vegetation values within the Nyidinghu Study Area (the Study Area). The purpose of this report is to document the results of the flora and vegetation survey and assessment.

The field work was undertaken in two phases, each representing a different season. The survey sampling plan was based on establishing approximately one quadrat per forty hectares. The quadrat design was adapted to the vegetation communities present within the Study Area to ensure each vegetation community was represented by a minimum of two quadrats. The entire 17,580 hectare Study Area was mapped and vegetation units described and named using the National Vegetation Information System (NVIS). The ground- and surface water dependent vegetation (comprising mainly of major creeklines and Mulga communities) in the bore-field injection area was mapped using remote-sensing techniques due to the sheer size of the area (121,732 hectares). Results from the field survey were used to an extent to ground-truth the mapping.

A total of 22 vegetation communities were observed and mapped in the Study Area, categorised as:

- Hummock grasslands on sand plains
- Fortescue Valley Sand Dunes
- Minor creeklines and floodplains
- Major creeklines
- Hummock grasslands on rocky hills
- Cracking clays
- Mulga on clay/clay loam plains

A total of 392 vascular native plant species were recorded during the field surveys of the Study Area representing 151 genera and 46 families. No Declared Rare Flora (DRF) or species listed as a threatened species pursuant to the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) were recorded within the Study Area. The targeted search for *Lepidium catapycnon* did not recover any plants at the location where it has previously been recorded. Five Priority Flora species were identified within the Study Area during the Phase 1 or Phase 2 field surveys of the Study Area. At this stage a single individual of the Priority 1 species *Calotis squamigera* will be directly impacted if the current design of Nyidinghu Study is implemented. This is considered to have a high impact on the *Calotis squamigera* populations at a local scale as this is the only population known from the local area.

Ten introduced species were recorded in the Study Area, none of which are listed as Declared Plants under the *Agriculture and Related Resources Protection Act* 1976. Four of these species have a 'high' under the DEC weed strategy (2008-2010) due to their invasiveness, distribution and environmental impacts.

The following potential impacts associated with the implementation of the Nyidinghu Project were identified:

- Vegetation clearance activities
- Alterations to surface hydrology
- Alterations to groundwater hydrology
- Introduced species
- Alterations to natural fire regimes
- Dust



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Clearing of native vegetation is considered to have the highest impact. It is unclear what vegetation communities will be most affected by vegetation clearing at this stage due to changes in the Nyidinghu Project design.

Altered surface and groundwater hydrology may impact native flora species and vegetation communities, particularly those associated with the Weeli Wolli Creek and Fortescue Marsh. Alterations in surface water flow as a result of development may potentially impact Mulga communities that are sheet flow dependent. It should be recognised that all the potentially sheet flow dependent communities occur north of the BHP Mt Newman rail. The existing railway is likely to have already adversely affected surface water flow between the Hamersley Ranges and the Fortescue Marsh therefore development south of the existing railway is unlikely to cause further impact to these communities.

Regional floristic analysis of the Nyidinghu vegetation showed that six of the twenty-two communities are poorly represented in the reference dataset and therefore are potentially considered of regional significance. It is difficult to determine whether these communities are in fact regionally significant or whether they are poorly represented in the reference dataset due to a lack of available data.



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Project

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Abbreviations

DEC Department of Environment and Conservation

DESWPaC Department of Environment, Sustainability, Water, Population and Communities

[Commonwealth]

DRF Declared Rare Flora

EPA Environmental Protection Authority

EPBC Environment Protection and Biodiversity Conservation Act 1999 [Commonwealth]

ESA Environmentally sensitive areas

Fortescue Metals Group

GDV Groundwater Dependent Vegetation

IBRA Interim Biogeographic Regionalisation for Australia

PEC Priority Ecological Communities

TEC Threatened Ecological Communities
WAH Western Australian State Herbarium
DMP Department of Minerals and Petroleum



1 Introduction

Cardno (WA) Pty Ltd (Cardno) was commissioned by the Fortescue Metals Group Limited, (Fortescue) in March 2011 to design and undertake a flora and vegetation survey and assessment of the Nyidinghu Study. This report documents the purpose, methodology and findings of the Nyidinghu Study flora and vegetation survey and assessment.

1.1 The Nyidinghu Study

In August 2010, Fortescue Exploration discovered the Nyidinghu iron ore deposit on Exploration Tenements E47/2390 and E47/1320 concealed under thick alluvial cover of Weeli Wolli Creek. Fortescue is proposing to develop the Nyidinghu iron ore deposit (the Nyidinghu Project) which is located approximately 280 km south of Port Hedland, 100 kilometres northwest of Newman, 35 km south of Fortescue's existing Cloudbreak operations, see **Figure 1**).

Fortescue have been carrying out greenfields exploration drilling in the Nyidinghu Study Area since August 2010 when the iron ore deposits were discovered of. The Nyidinghu Project will consist of the following:

- An iron ore mine and resource comprising Brockman Iron Formation ore, Channel Iron Deposit (CID) fines product, and Detrital Iron Deposit (DID) fines product.
- Mine infrastructure including mine pits, haul roads and rail loading area.
- An ore processing facility (OPF) with an expected production rate of up to 80 million tonnes (Mt) per annum.
- Waste dumps and Tailings Storage Facility (TSF) for disposal of overburden and tailings generated as a result of the Project.
- Mine dewatering, production and re-injection borefield for dewatering of the mine pits, production of water supply and re-injection of excess water.
- Supporting infrastructure including an access road, construction camp and permanent accommodation village, administration offices, laboratory facilities, waste water treatment plants, airport and a power station.

The life of mine is expected to be approximately 30 years.

The Project is located in close proximity to a regional aquifer (located north of the Study), which has the potential to be drawn into the mining pit with the commencement of dewatering. There are known ecological constraints on groundwater drawdown in the area, most notably the high conservation value Fortescue Marsh located to the north. Excess groundwater is proposed to be injected back to the groundwater system due to constraints on other disposal options (surface discharge) and need to avoid potential impacts on Groundwater Dependant Vegetation (GDV) as a result of groundwater drawdown.

1.2 Purpose of the Flora and Vegetation Assessment

A Level 2 Flora and Vegetation survey was conducted in accordance with EPA Guidance Statement 51 (2004) as part of an assessment of the biodiversity values within the Nyidinghu Study Area (the Study Area). A desktop assessment of the Study Area was completed to identify flora and vegetation of conservation significance prior to conducting the field survey work. The field survey work was undertaken over two seasons to ensure a comprehensive biological inventory was developed.

This assessment also seeks to place the vegetation and flora of the Study Area into a regional context. Regional floristic analysis for the Nyidinghu Project was undertaken by M.E. Trudgen and Associates with the purpose to "investigate the conservation value of the vegetation of areas of the

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Fortescue Metals Group Nyidinghu project area as shown by the floristic composition of stands recorded using quadrats".

The purpose of this report is to document the results of the flora and vegetation survey, data analyses and impact assessment. The report provides relevant information concerning:

- aspects of the legal and policy framework for native flora and vegetation within Western Australia that is relevant to the Nyidinghu Study;
- the methods utilised to conduct the surveys;
- the results of the surveys; and
- the likely impacts of the Nyidinghu Study upon native flora and vegetation.

1.3 Previous Vegetation Surveys in the Vicinity of the Study Area

Previous vegetation surveys conducted by Biota Environmental Services (2004) for the proposed Fortescue Stage A Rail Corridor overlap a large proportion of the Nyidinghu Study (see **Figure 2**). Differences between the surveys were the sample intensity, the time difference between surveys, and the quality of aerial photography available for Cardno to undertake the vegetation mapping. In addition, Ecologia Environment completed a Level 1 flora and vegetation survey on behalf of Brockman Resources Limited (tenements M47/1414, M47/1419 and E47-1408) West of Fortescue's proposed operations. Fortescue's Flora and Vegetation Assessment Guidelines (FMG 2011) were adhered to for the flora and vegetation assessment therefore consistency in vegetation unit naming and descriptions between the Biota and Cardno results was not possible. The following reports were also used as technical references:

- Biota (Aug 2004 Baseline Botanical Surveys for the Fortescue Stage A Rail Corridor,
- Van Vreeswyk et al (2004) Inventory and Condition Survey of the Pilbara Region;
- EPA (2010) Report and recommendations for the Marillana iron ore Study;
- Ecologia (2009/2010/2011) Flora and vegetation survey for Brockman Resources Limited;
- Mattiske (2005 and 2007) Cloudbreak flora and vegetation mapping and condition reports;
- ENV Australia (2010). Cloudbreak and Christmas Creek Flora and Vegetation Assessments; and
- C Muller Consulting (2005) Water flow in mulga areas adjoining the Fortescue Marsh.



2 Legislation and Policy Requirements

All Western Australian native flora is protected under the *Wildlife Conservation Act 1950* [WA] (WC Act), where flora is defined as any plant (including wildflower, palm, shrub, tree, fern, creeper or vine) which is either native to Western Australia or declared to be flora under the WC Act, and includes any part of flora and all seed and spores thereof. Any activity in Western Australia that involves taking part of or the whole of a WA native plant may require a licence or permit to do so.

2.1 Clearing Native Vegetation

Native vegetation is defined under the *Environmental Protection Act 1986* [WA] (*EP* Act) as including indigenous aquatic or terrestrial vegetation, includes dead vegetation unless that dead vegetation is of a class declared by regulation to be excluded from this definition but does not include vegetation in a plantation (Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

In assessing the Nyidinghu Study proposal, the Environmental Protection Authority (EPA) will include the following as part of their assessment to ensure biodiversity in Australia is protected (EPA 2000):

- A comparison of development scenarios, or options, to evaluate protection of biodiversity at the species and ecosystem levels, and demonstration that all reasonable steps have been taken to avoid disturbing native vegetation.
- No known species of plant or animal is caused to become extinct as a consequence of the development and the risks to threatened species are considered to be acceptable.
- No association or community of indigenous plants or animals ceases to exist as a result of the Study.
- There would be an expectation that a proposal would demonstrate that the vegetation removal would not compromise any vegetation type by taking it below the "threshold level" of 30% of the pre-clearing extent of the vegetation type.
- Where a proposal would result in a reduction below the 30% level, the EPA would expect alternative mechanisms to be put forward to address the protection of biodiversity.
- There is comprehensive, adequate and secure representation of scarce or endangered habitats within the Study Area and/or in areas which are biologically comparable to the Study Area, protected in secure reserves.
- If the Study Area is large (and what is meant by large will vary depending on where in the State) the Study Area itself should include a comprehensive and adequate network of conservation areas and linking corridors whose integrity and biodiversity is secure and protected.
- The on-site and off-site impacts of the Study are identified and the proponent demonstrates that these impacts can be managed.

In considering these criteria the EPA will recognise that "it is not always possible for a proponent alone to be able to ensure that biological diversity is adequately protected and that to do so may require the participation of the State Government to ensure that adequate areas are reserved" (EPA 2000).

2.2 Threatened and Priority Ecological Communities

In Western Australia "Threatened Ecological Communities" (TEC) are defined by the Western Australian Threatened Ecological Communities Scientific Advisory Committee (within the Department of Environment and Conservation (DEC)) and are assigned to one of the categories outlined below in **Table 2-1**. While they are not afforded direct statutory protection at a State level (unlike Declared Rare Flora under the *Wildlife Conservation Act 1950* [WA]) their significance is acknowledged through other State environmental approval processes (i.e. Environmental Impact Assessment process

pursuant to Part IV of the *EP* Act). Selected TEC are also afforded statutory protection at a Federal level pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* [Commonwealth] (EPBC Act). The EPBC Act provides for the protection of TEC which are listed under section 181 of the EPBC Act and which are defined as either "Critically Endangered", "Endangered", or "Vulnerable" under section 182.

Table 2-1 Categories of DEC Threatened Ecological Communities (English and Blyth 1997)

Category	Description
PD	Presumed Totally Destroyed
	An ecological community that has been adequately searched for but for which no representative occurrences have been located.
CE	Critically Endangered
	An ecological community that has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future
E	Endangered
	An ecological community that has been adequately surveyed and is not critically endangered but is facing a very high risk of total destruction in the near future.
V	Vulnerable
	An ecological community that has been adequately surveyed and is not critically endangered or endangered but is facing a high risk of total destruction or significant modification in the medium to long-term future.

Communities that are not listed as a TEC may be listed as a Priority Ecological Community (PEC). The DEC (2010) describes PEC as ecological communities that are under consideration for listing as TEC, but does not yet meet the criteria or has not been adequately defined, is placed in either Category 1, 2, or 3 of the PEC list. Ecological communities that are adequately known, and are rare but not threatened or meet criteria for Near Threatened, or those how have recently been removed from the threatened list, are placed in Priority 4. Ecological communities that are adequately known and are rare but not threatened, or meet criteria for Near Threatened, or that have been recently removed from the threatened list, are placed in Priority 4. These ecological communities require monitoring. Conservation dependent ecological communities are placed in Priority 5. Categories and definitions of PEC are listed in **Table 2-2**.

Table 2-2 Categories of Priority Ecological Communities (DEC 2009)

Priority Rating	Description
Priority 1	Ecological communities with apparently few, small occurrences, all or most no actively managed for conservation (e.g. within agricultural or pastoral lands urban areas, active mineral leases) and for which current threats exist. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.
Priority 2	Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.
Priority 3	Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or:

	Communities known from a few widespread occurrences, which are either large or within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or;
	3. Communities made up of large, and/or widespread occurrences, which may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, and inappropriate fire regimes.
	Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.
Priority 4	Ecological communities that are adequately known, rare but not threatened or meet criteria for near threatened, or that have been recently removed from the threatened list. These communities require regular monitoring.
Priority 5	Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

Selected TEC are also afforded statutory protection at a Federal level pursuant to the EPBC Act. Not all State listed TEC are given Federal protection, only a select few. The EPBC Act provides for the protection of TEC, which are listed under section 181 of the EPBC Act, and are defined as "Critically Endangered", "Endangered" or "Vulnerable" under Section 182 of the EPBC Act.

2.3 Environmentally Sensitive Areas

Under section 51B of the EP Act the Minister can, by notice, declare an area of the State specified in the notice or an area of the State to be an Environmentally Sensitive Area. ESAs are protected under the *Environmental Protection (Clearing of Native Vegetation) Regulation 2004* and are selected for their environmental values at state or national levels. Some of the reasons for assigning this status include:

- Protection of rare or threatened species of native plants;
- Protection of wetlands and water courses;
- Protection of sites that have other high conservation, scientific or aesthetic values; and
- Protection of Aboriginal or European cultural sites.

2.4 Conservation Significant Species

2.4.1 Rare and Priority Flora

Species of flora may be listed as "Threatened" pursuant to Schedule 1 of the EPBC Act. Any action likely to have a significant impact on a species listed under the EPBC Act requires referral to the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) and potentially the approval of the Commonwealth Minister for the Environment.

A species of flora may be designated a "Declared Rare" species under subsection 2 of section 23F of the *Wildlife Conservation Act* 1950 [WA] (*WC* Act) and it is an offence to "take" damage rare flora without Ministerial approval. Section 23F of the Act defines "to take" as "... to gather, pluck, cut, pull up, destroy, dig up, remove or injure the flora to cause or permit the same to be done by any means". The Minister for the Environment can declare taxa (species, subspecies or variety) as "Declared Rare Flora" (DRF) if they are considered to be in danger of extinction, rare or otherwise in need of special protection.

Species of flora acquire a "Declared Rare" or "Priority" conservation status when populations are restricted geographically or threatened by local processes. The Department of Environment and Conservation recognises these threats and applies regulations towards population protection and

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species conservation. The DEC enforces regulations under the WC Act to conserve Declared Rare Flora (DRF) and Priority Flora and protect significant populations. Priority Flora species are potentially rare or threatened and are classified in order of threat. DRF and Priority Flora category definitions are listed in **Table 2-3**.

The list of DRF is reviewed annually by a scientific panel that assess a taxons' conservation status and ranks them into categories. The Priority Flora list is dynamic, as new information becomes available conservation status is reviewed and changes to the listing may result. The categories for Priority Flora give an indication of the priority for undertaking further surveys based on the number of known sites, and degree of threat to those populations.

Table 2-3 Definition of Declared Rare Flora and Priority Flora species (DEC 2011a)

Conservation Code	Category
Т	Declared Rare Flora – Extant Taxa
	Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such. Threatened Flora are further ranked by the Department according to their level of threat using IUCN Red List criteria:
	 CR: Critically endangered – considered to be facing an extremely high risk of extinction in the wild;
	 EN: Endangered – considered to be facing a very high risk of extinction in the wild;
	> VU: Vulnerable – considered to be facing a high risk of extinction in the wild.
X	Declared Rare Flora – Presumed Extinct Taxa
	Taxa which have been adequately searched for and there is no reasonable doubt that the last individual has died, and have been gazetted as such. Species that have not yet been adequately surveyed to be listed under Schedule 1 or 2 are added to the Priority Flora List under Priorities 1, 2 or 3.
P1	Priority One – Poorly Known Taxa
	Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat e.g. road verges, urban areas, farmland, active mineral leases etc, or the plants are under threat, e.g. from disease, grazing by feral animals etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P2	Priority Two – Poorly Known Taxa
	Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but urgently need further survey.
P3	Priority Three – Poorly Known Taxa
	Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as 'rare flora' but need further surveying.
P4	Priority Four – Rare Taxa
	Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years.

P5	Priority Five – Conservation Dependent Species		
	Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.		

2.4.2 Local and Regionally Significant Flora

In addition to plant taxa being recognised as significant through their DRF or Priority Flora status, they can also be significant for a number of other reasons. Guidance Statement No. 51 – *Terrestrial flora and vegetation surveys for environmental impact assessment in Western Australia* (EPA 2004) states that "significant flora" may include taxa that have:

- "a keystone role in a particular habitat for threatened species, or supporting large populations representing a significant proportion of the local regional population of a species;
- relic status;
- anomalous features that indicate a potential new discovery;
- being representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);
- the presence of restricted subspecies, varieties or naturally occurring hybrids;
- local endemism/a restricted distribution; or
- being poorly reserved. "

Similarly, plant communities or vegetation may be considered "significant vegetation" for reasons other than a listing as a TEC. The EPA (2004) stated that these reasons include:

- "scarcity;
- unusual species;
- novel combinations of species;
- a role as a refuge;
- a role as a key habitat for threatened species or large populations representing a significant proportion of the local to regional total population of a species;
- being representative of the range of a unit (particularly, a good local and/or regional example of a
 unit in 'prime' habitat, at the extremes of range, recently discovered range extensions, or isolated
 outliers of the main range); or
- a restricted distribution. "



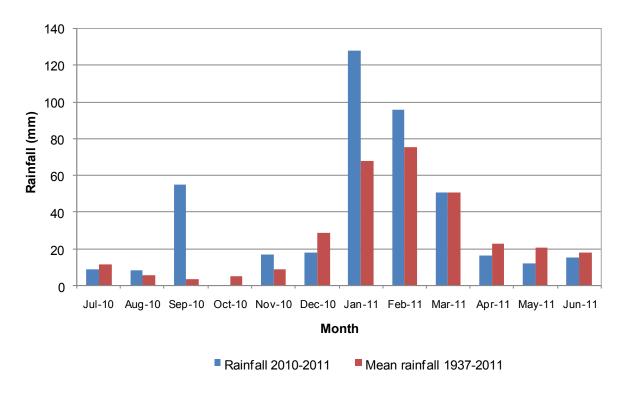
3 Regional Setting

The Nyidinghu Study Area (the Study Area), is located approximately 100 km northwest of Newman. The Study Area is located in the Fortescue Valley which is one of eight localities that make up the Pilbara Region in the Eremaean Botanical Province. The Study Area is 17,580 hectares and is situated within the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA).

3.1 Climate

The Pilbara region is described as being arid tropical with summer rain (Beard 1975). The Pilbara subregion is considered by the Bureau of Meteorology to be at high to severe risk of drought. Historically, the Pilbara region has suffered from a few extended periods when the whole area was affected by either serious or severe drought (van Vreeswyk *et al* 2004).

As is evident in **Graph 1**, the highest rainfall season is in the summer months, between December and March, sometimes extending out to April. Marillana Station experienced above average rainfall in five months in 2010-2011 in the months preceding the Nyidinghu Assessment.



Graph 1 Climatic Data for Marillana station from 1937 – 2011 (Bureau of Meteorology 2011)

3.2 Geology

The Pilbara region is situated on the Pilbara Craton with granite-greenstone terrane in its northern third and volcano-sedimentary successions (van Vreeswyk *et al* 2004). Beard (1975) describes the geology of the Fortescue Valley as quaternary alluvium, collovium and sand plains overlying the Tertiary Oakover formation (limestone and calcareous gravels) and chert breccia which are exposed locally.

3.3 Soils

The Soil Atlas of Australia data (Northcote *et al* 1960-1968) was used to identify the soils that occur within the Study Area. The soils are listed in **Table 3-1**, ordered as they are encountered when travelling south to north through the Study Area. The distribution of soils is illustrated in **Figure 3** at the end of the document.

Table 3-1 Soils Identified within the Nyidinghu Study Area (Northcote et al 1960-1968)

Soil Type	Description
My55	Gently sloping outwash plains generally flanking the northern face of the Hamersley Range; coarse surface gravels are extensive: chief soils are neutral red earths.
Mz25	Plains associated with the Fortescue valley, surface cover of stony gravels close to the ranges and hills. Chief soils are acid red earths with some neutral red earths, red-brown hardpan is absent. Creek lines are associated with calcareous earths and loams on kunkar and some hard red soils.
Fa13	Ranges of banded jaspilite and chert along with shales, dolomites, and iron ore formations; some areas of ferruginous duricrust as well as occasional narrow winding valley plains and steeply dissected pediments. This unit is largely associated with the Hamersley and Ophthalmia Ranges. Soils are frequently stony and shallow and there are extensive areas without soil cover. Chief soils are shallow stony earthy loams.
Oc71	Outwash plains with a lot of coarse surface gravel. Chief soils are hard alkaline red soils however others do occur.
Ja1	Extensive valley plains largely associated with the Fortescue River. Chief soils are earthy clays. Small areas of calcrete also occur.
Oc70	Dissected pediments and low stony hills associated with Cherts, laspilites, and iron ore formations. Course gravel evident on surface, chief soils are hard alkaline red soils.
Lb12	Valley flats along major drainage lines associated with limestone and calcareous gravels. Chief soils are highly calcareous earths with minor areas of shallow calcareous loams.

3.4 Land Systems

Between 1995 and 1999 the Department of Agriculture, Western Australia and the Department of Land Administration (now Department of Land Information), undertook the inventory of the Pilbara region of Western Australia. The purpose of the survey was to provide a comprehensive description and maps of the biophysical resources of the region with an evaluation of the condition of the soils and vegetation throughout, these were all documented in a report written by van Vreeswyk, Payne, Leighton and Hennig (2004). The Pilbara inventory recognised seven land systems within the Study Area. These are listed in

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 Table 3-2 and illustrated in Figure 4.



Table 3-2 Land systems and descriptions of the Nyidinghu Study Area (van Vreeswyk et al 2004)

Land System	Land Type	Description
Divide	Sandplains and occasional dunes supporting shrubby hard spinifex grasslands.	Sandplains and occasional dunes with shrubby spinifex grasslands or pindan woodlands.
Boolgeeda	Stony plains with spinifex grasslands.	Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands.
Newman	Hills and ranges with spinifex grasslands.	Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands.
Urandy	Alluvial and sandy plains with soft spinifex grasslands.	Stony plains, alluvial plains and drainage lines supporting shrubby soft spinifex grasslands.
River	River plains with grassy woodlands and tussock grasslands.	Active floodplains, major rivers and banks supporting grassy eucalypt woodlands, tussock grasslands and soft spinifex grasslands.
Fan	WAH plains on hardpan with mulga stands	WAHplains and gilgai plains supporting groved mulga shrublands and minor tussock grasslands.
Fortescue	River plains and flood plains supporting patchy grassy woodlands and shrublands and tussock grasslands.	Alluvial plains and flood plains supporting patchy grassy woodlands and shrublands and tussock grasslands.
Marillana	Alluvial plains with acacia shrublands	Gravelly plains with large drainage foci and unchannelled drainage tracts supporting snakewood shrublands and grassy mulga shrublands.
Marsh	Salt lakes and fringing alluvial plains with halophytic shrublands.	Lakebeds and flood plains subject to regular inundation, supporting samphire shrublands, salt water couch grasslands and halophytic shrublands.
Calcrete	Calcrete plains with spinifex grasslands.	Low calcrete platforms and plains supporting shrubby hard spinifex grasslands.

3.5 Fortescue Marsh Area

Recently the Department of Water (DoW), DEC and Office of the EPA released the draft guideline for Environmental and Water Assessments Relating to Mining Operations in the Fortescue Marsh Area (Department of Water, Department of Environment and Conservation, and the Office of the Environmental Protection Authority 2011). The document divides the Fortescue Marsh area into seven management zones. All zones are further categorised into three levels of conservation significance, high, medium or low. The Study Area is situated on the Marillana Plain and the Poonda Plain. These are described in further detail below and illustrated in **Figure 5**.

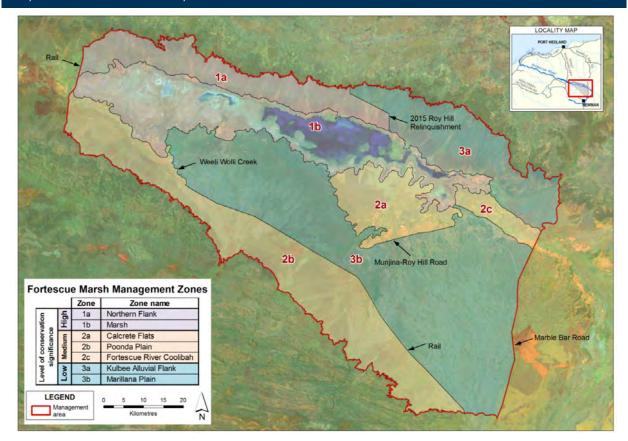


Figure 5 Fortescue Marsh management zones identified by DoW, DEC, and OEPA 2011

Poonda Plain

Sitting below the Hamersley Range escarpment the plain supports undulating alluvial, stony and/or sandy plain with numerous drainage channels. The vegetation is dominated by riparian woodlands along drainage, extensive mulga woodland, and mixed *Acacia* shrublands on heavy alluvial soils and *Acacia* shrubland and spinifex grasslands on sandy plains. Dominant features include Weeli Wolli Creek, Coondiner Creek and the Fortescue Valley Sand Dunes PEC.

Marillana Plain

The Marillana Plain is adjacent to the Poonda Plain and is flanked by the Fortescue Marsh and Calcrete Flats on the northern edge. The plain includes alluvial fans of Weeli Wolli and is dominated by mulga woodlands and mixed *Acacia* shrublands. Mulga woodlands have been recognised as having a high environmental value.

3.6 Vegetation

Mapping is available for Pilbara at several scales illustrating pre-European vegetation. The Department of Agriculture and Food WA have compiled multiple datasets together to create a spatial vegetation layer for Western Australia. The vegetation descriptions are based on Beard's (1975) original mapping of Western Australia however some areas are supplemented by more recent mapping. Four Beard (1975) vegetation types occur within the Study Area. **Table 3-3** details the vegetation types in order as they would be encountered travelling in a south to north direction across the Study Area. The vegetation unit numbers were derived from Beard's (1970) vegetation mapping

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and the % remaining indicates the total percentage of pre-European vegetation still remaining within the Pilbara bioregion.

Table 3-3 Vegetation types identified and the total extent of their occurrence within the Study Area, (Department of Environment and Conservation 2007)

Vegetation Unit	Description	% Remaining
29	Sparse low woodland; mulga, discontinuous in scattered groups.	100 %
82	Hummock grasslands, low tree steppe; snappy gum over Triodia wiseana.	100 %
111	Hummock grasslands, shrub steppe; <i>Eucalyptus gamophylla</i> over hard spinifex.	100 %
676	Succulent steppe; samphire.	99.93 %

4 Methods

4.1 Desktop Survey

The desktop survey involved collation and review of data from:

- DEC Declared Rare Flora and Priority Flora database:
- The Western Australian State Herbarium (WAH) Specimen database for opportunistically collected Priority species;
- DEC Threatened Ecological Community and Priority Ecological Community database;
- Naturemap website;
- Department of Sustainability, Environment, Water and Communities DRF and TEC database (online); and
- Environment Protection and Biodiversity Conservation Protected Matters Database.

The Desktop search area for Declared Rare Flora and Priority Flora species was between 20-50 kilometres. A 100 kilometre buffer zone was used to undertake the Threatened and Priority Ecological Community search. All searches were based around a central point with the following coordinates: 738257 mE 7505505 mN GDA94

4.2 Field Work

4.2.1 Timing

The field work was divided into two phases, each representing a different season.

Phase 1 was completed in the optimum sampling season for the Pilbara region in accordance with Guidance Statement 51 (Environmental Protection Authority 2004). Two 10-day field trips commenced on 28 March 2011 and finished on 21 April 2011. This period was considered the optimum sampling season due to the significant rainfall events experienced by the Pilbara region during February 2011 (see **Graph 1**). Field personnel involved in Phase 1 are detailed in **Table 4-1**.

Table 4-1 Details of personnel involved in Phase 1

Team	Personnel	Role	Collection Permit
Team A	Shane Chalwell	Senior Botanist	Coll permit:SL009597
	Bronwyn Neville	Field Assistant	NA
Team B	Floora de Wit	Botanist	Coll permit: SL009352 DRF permit: 157-1011
	Jessica Lisle	Field Assistant	NA
Team C	Chris Hancock	Senior Botanist	Coll permit SL009278
	Matthew Field	Field Assistant	NA

Phase 2 was completed over a 10-day period commencing on 4 July 2011 and finishing on 27 July 2011. The objective of Phase 2 was to re-sample all quadrats established in Phase 1 thereby ensuring all ephemerals and winter germinators were included in the biological inventory. Field personnel involved in Phase 2 are detailed in **Table 4-2**.

Table 4-2 Details of personnel involved in Phase 1

Team	Personnel	Role	Collection Permit
Team A	Shane Chalwell	Senior Botanist	Coll permit:SL009597
	Lisa Bannister	Field Assistant	NA
Team B	Floora de Wit	Botanist	Coll permit: SL009352 DRF permit: 157-1011
	Patrick Maher	Field Assistant	NA
Team C	Chris Hancock	Senior Botanist	Coll permit SL009278
	Bronwyn Neville	Field Assistant	NA

4.2.2 Survey Sampling Design and Intensity

The survey sampling plan was based on point based sampling, establishing at least one quadrat per forty hectares. The quadrat design was adapted to the vegetation communities present within the Study Area to ensure each vegetation community was represented by a minimum of two quadrats in accordance with Guidance Statement 51 (EPA 2004). Quadrat locations are illustrated in **Figure 6**.

Quadrats were established in accordance with Fortescue's *Flora and Vegetation Survey Guidelines* (100-GU-EN-0005). All corners of each quadrat were marked with aluminium stakes that stood a minimum of one metre above the ground. The GPS location was recorded at every corner, and a photograph was taken from the northwest and southeast corner facing the centre of the quadrat. Flora and vegetation were sampled systematically at every quadrat and the following parameters were recorded on Trimble Nomad handheld computers:

- Date
- Quadrat number
- Topography
- Soil type
- Litter cover
- Time since fire
- Disturbance
- Habitat
- Vegetation description
- Additional observations

The following information was recorded for all species present:

- Average height
- Percentage cover
- If a flora species was collected an average population size was estimated in the following categories: 2-5; 6-10; 11-25; 26-50; 51-100 and 101-200 to contribute to vouchering information when lodging at the WAH

The following were collected for flora species of conservation significance and introduced (weed) species:

- GPS location co-ordinates
- Abundance/population size estimates and population boundary co-ordinates(if appropriate)
- Photographic records
- Voucher specimen



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The first three quadrats were surveyed by all three teams together thereby calibrating subjective measurements and ensuring all field team members were aware of the methodology adopted for the survey. The completion of Phase 2 also allowed the teams to identify and truth any taxonomical uncertainties from Phase 1.

4.2.3 Targeted Surveys

Targeted searched were undertaken for Threatened Flora (Declared Rare Flora) (Priority 1 species *Lepidium catapycnon*) identified as present within the Study Area from the desktop assessment. To determine the presence of Threatened Flora at identified locations, a spiral pattern was walked by one team to approximately a 600 metre radius.

Communities of significance identified in the desktop assessment were comprehensively surveyed, with additional quadrats established within these communities to gain an understanding of the composition and structure of the community.

4.3 Plant Identification

Plant specimens were dried and frozen in accordance with WAH standards. Plants were identified by an experienced botanist, Sharnya Thomson, who specialises in flora of the Pilbara. Expert advice from Bruce Maslin was sought to identify several *Acacia* samples, similarly, Rob Davis was consulted to identify several *Ptilotus* species. A review of all plant identifications was undertaken by Malcolm Trudgen and amendments were made where necessary.

Plant specimens that were considered of interest to the WAH were set aside for vouchering. A large number of specimens were of good quality due to the good rainfall season experienced in the Pilbara in 2011. All specimens that met WAH standards were set aside for vouchering.

4.4 Mapping

4.4.1 Vegetation Mapping

Structural vegetation mapping of the Study Area was completed with the assistance of aerial photography supplied by Fortescue. Vegetation mapping showed the locations and extents of discrete vegetation units along with landmarks, roads and tracks, the location of survey quadrats, and the location of flora of conservation significance.

Vegetation units were described and named using the National Vegetation Information System as published by the Executive Steering Committee for Australian Vegetation Information (2003). For this reason, consistency of vegetation units used in this study with those used in the previous Biota (2004) and Mattiske (2005) vegetation mapping was not possible.

4.4.2 Condition Mapping

Condition mapping was undertaken for the Study Area. Condition mapping was based on field observations and obvious signs of disturbance (tracks, rail lines and water bores). A map illustrating vegetation condition of the Study Area was composed using the Trudgen (1991) vegetation condition scale summarised in **Table 4-3**.



Table 4-3 Vegetation Condition Scale (Trudgen 1991)

Condition Code	Definition
Excellent (E)	Pristine or nearly so, no obvious signs of damage caused by the activities of European man.
Very Good (VG)	Some relatively slight signs of damage caused by the activities of European man, e.g. some signs of damage to tree trunks caused by repeated fire and the presence of some relatively non-aggressive weeds such as <i>Ursinia anthemoides</i> or <i>Briza</i> species, or occasional vehicle tracks.
Good (G)	More obvious signs of damage caused by the activities of European man, including some obvious impact on the vegetation structure such as caused by low levels of grazing or by selective logging. Weeds as above, possibly plus some more aggressive ones.
Poor (P)	Still retains basic vegetation structure or ability to regenerate to it after very obvious impacts of activities of European man such as grazing or partial clearing (chaining) or very frequent fires. Weeds as above, probably plus some more aggressive ones such as <i>Ehrharta</i> species.
Very Poor (VP)	Severely impacted by grazing, fire, 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 including aggressive species.
Completely Degraded (CD)	Areas that are completely or almost completely without native species in the structure of their vegetation, e.g. areas that are cleared or "parkland cleared" with their flora comprising weed or crop species with isolated, native trees or shrubs.

4.4.3 Bore-field Injection Area Mapping

The proposed bore-field injection area is 121,732 hectares and is situated between the Fortescue Marshes to the north and the Hamersley Ranges to the southwest (see **Figure 7**). Vegetation was classified as groundwater dependent or sheet flow dependent. Groundwater Dependent Vegetation (GDV) is defined as any vegetation that uses groundwater as part of survival ranging from complete reliance to those that only partially rely on groundwater such as during droughts (Australian Government 2012). Sheet flow dependent vegetation was defined as vegetation known to be highly dependent on sheet flow (Astron 2010).

Vegetation within the bore-field injection area (bore-field) was mapped using remote-sensing techniques. Detailed aerial photography was available for half of the bore-field with the remainder supplemented by Google Earth images. A computer software package, Multispec 32 (©Purdue Research Foundation) was used to capture the spectral signatures of vegetation communities of interest and identify vegetation in other areas with the same spectral signature. Data from the Nyidinghu vegetation survey was used to ground-truth the mapping.

4.4.4 Data Analysis

Two forms of data analysis were undertaken:

- 1. Multivariate comparative analysis of quadrat data to assist with the delineation or discrete vegetation units;
- 2. Regional analysis to assist with assessing regional significance of the vegetation communities in the Study Area.

4.4.4.1 Multivariate Comparative Analysis

The purpose of the multivariate comparative analysis was to support the delineation of plant communities within the Study Area. The Data analysis comprised of multivariate comparative analysis of survey quadrat data using the PCOrd (McCune & Mefford 2006 version 5.31) software package. Hierarchical clustering (agglomerative cluster analysis) illustrated discreet vegetation types which were illustrated as dendrograms.

The data analysis was undertaken considering the following:

- Foliage cover presence absence is often an inadequate measurement for representing floristic communities.
- Perennials and annuals were included –the presence of the annuals was important when delineating plant communities.
- Analysis was done minus singletons (i.e. data records for species for which only one specimen was recorded within the Study Area) to reduce the error margin considerably.
- Ward's method according to McCune and Grace (2002) the Ward method avoids distortion by being space-conserving and has less chance of chaining.

Ward's method (aka hierarchical grouping/minimum variance method/Orloci's method) is based on minimising increases in the error sum of squares (the sum of the squares of distances from each individual to the centroid of its group) (McCune and Grace 2002). It is a space-conserving linkage method.

Due to the degree of error involved in estimating the foliage cover of each species, the Braun-Blanquet scale was used to classify the foliage cover data into six classes (**Table 4-4**).

Table 4-4 Braun-Blanquet classes used to class foliage cover for data analysis purposes (Kent & Coker 1992)

Braun-Blanquet Class	Description
+	Individuals, cover less than 1 %
1	Numerous plants, cover less than 5 %
2	Any number of plants, cover between 5 – 25 %
3	Any number of plants, cover between 25 – 50 %
4	Any number of plants, cover between 50 – 75 %
5	Any number of plants, cover greater than 75 %

4.5 Limitations

The following limitations were recognised during the flora and vegetation assessment for the Nyidinghu Study.

- 1. The bore-field aerial was supplemented by Google Earth images which may cause inconsistencies with quality of work.
- 2. Access to some parts of the Study Area was limited therefore quadrats are not evenly dispersed throughout the area.
- 3. Nomenclature of plant species are not all published names on Florabase (WAH 1998-). Malcolm Trudgen uses his own descriptive plant names. This ensured that the Nyidinghu dataset could be compared to the reference data set for the regional statistical analysis.

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- 4. A certain degree of error has to be assumed for plant species that were identified in the field rather than collected and compared to the State Herbarium reference collection.
- 5. The species list generated from the field survey is not a complete inventory of all flora species present in the study area. Additional flora species including potential rare, priority or other conservation significant species may be present in the Study Area.

Limitations of the regional floristic analysis are detailed in the regional analysis report provided in **Appendix I**.



5 Results

5.1 Desktop Survey

5.1.1 Vegetation Communities

Common vegetation communities that occur in the locality of the Study Area are described by Beard (1975) as:

- Sandplains of Triodia basedowii and occasional Triodia pungens with Hakea lorea and Eucalyptus gamophylla.
- Valley plains of irregular low Acacia aneura woodlands associated with Acacia tetragonophylla, Acacia pruinocarpa, Acacia xiphophylla, Eucalyptus microtheca and Corymbia dichromophloia. The ground layer is seasonal and comprises of mainly Ptilotus exaltatus.

5.1.2 Threatened and Priority Ecological Communities

No Threatened Ecological Communities were identified as occurring within the vicinity of the Study Area in the Desktop Survey.

Two Priority Ecological Communities (PEC) were identified in the search area around the Study Area. **Figure 10** shows the recorded locations of the PECs and associated buffer areas derived from the DEC. The buffer radius around each occurrence of a TEC or PEC is included to help ensure that developments with potential to impact groundwater or surface water are picked up.

Fortescue Marsh (Marsh Land System) - Priority 3

Fortescue Marsh occurs on the Fortescue River, east of Mulga Downs, on the Marillana and Roy Hill Stations. This community supports endemic *Eremophila* species and several near endemic and new to science samphires. It is a recorded locality for Night Parrot and Bilby and supports several restricted aquatic invertebrates. Specific vegetation types are found on Mulga Downs, only around the marsh, and an unusual system occurs downstream.

Recognised threats to the Fortescue Marsh are mining, altered hydrology (watering with fresh water), grazing and weed infestation. The Fortescue Marsh occurs approximately 19 kilometres north of the existing BHP railway.

Fortescue Valley Sand Dunes - Priority 3

This community is composed of red linear sand dunes that lie on the Divide Land system at the junction of the Hamersley Range and Fortescue Valley, between Weeli Wolli Creek and the low hills to the west. A small number of dunes are vegetated with *Acacia dictyophleba* scattered tall shrubs over *Crotalaria cunninghamii, Trichodesma zeylanicum var. grandiflorum* open shrubland. They are regionally rare, small and fragile and highly susceptible to threatening processes.

Recognised threats to this community include weed invasion especially from Buffel Grass and erosion. This community is known to occur at the western edge of the Study Area, this was verified during the field survey.

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5.1.3 Other Communities of Conservation Interest

According to the Department of Mines and Petroleum (DMP) Conservation Reserves and Other Environmentally Sensitive Lands in Western Australia map (1998) and the Department of Environment and Conservation (DEC) Native Vegetation Map Viewer (DEC, 2011b), there are no Environmentally Sensitive Areas (ESA) in the locality of the Nyidinghu Study Area.

The Fortescue Plains subregion is described by Kendrich (2001) as supporting three areas of value in relation to landscape, ecosystem, species, and genetic value. These are listed below:

- Millstream Wetlands: permanent spring-fed streams, pools and river flow
- Millstream aquifer: extensive calcrete aquifer lying between Hamersley and Chichester Ranges
- Fortescue Marsh: extensive episodically inundated Samphire marsh

Both the Fortescue Marsh and the Millstream Pools are recognised as Wetlands of National Significance (Environment Australia 2001). The Millstream Wetlands and aquifer are more than 250 kms northeast of the Study Area. The Fortescue Marsh is located 15 kms north of the Study Area.

Additional ecosystems that have been recognised as being at risk by Kendrich (2001) that are relevant to the Nyidinghu Study include:

- Fortescue Marsh saltbush community described as mixed Chenopod, Samphire and Forblands
- Perennial grassland communities in the Fortescue Valley
- Grove-intergrove mulga communities at the Southern end of Northern apron of Hamersley range

The draft guideline for Environmental and Water Assessments Relating to Mining Operations in the Fortescue Marsh Area (DoW, DEC, OEPA 2011) also highlight the environmental significance of Mulga communities on the Marillana Plain, with respect to sheet flow.

5.1.4 Flora

The Desktop Survey revealed 4 DRF and 41 Priority Flora species that could potentially occur within the Study Area. Of the 45 flora of conservation significance identified, five had been recorded within the Study Area. Details of these previous records are provided in **Table 6-1**. A total of 10 DRF and Priority Flora species were considered likely to occur within the Study Area. Details of these species are provided in **Table 6-2**.

A tabulated list of these species, including an assessment of the likelihood of their presence within the Study Area is provided in **Appendix A**. Locations where DRF and Priority Flora species were identified in the Desktop Survey are shown in **Figure 9**.



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Table 5-1 Details of Declared Rare and Priority flora previously recorded in the Nyidinghu Study Area

Species (Status)	Year Collected	Location (GDA94)	Source	Comments
Lepidium catapycnon (R)	01/09/1999	743111 7497907	WA Herbarium no. PERTH 05548985	Confirmed by S. Patrick 10 July 2003
Stylidium weeliwolli (P2)	04/09/1959	741467 7491471	WA Herbarium no. PERTH 02958511	Recorded at the head of "Willy Wally" creek.
Acacia subtiliformis (P3)	?/10/1992	746666 7495081	WA Herbarium no. PERTH 07879431	Confirmed by B.R. Maslin 06/06/2006
Atriplex flabelliformis (P3)	28/06/1984	743856 7516052	WA Herbarium no. PERTH 02381060	Moderately well-drained red clay loam on extensive subsaline flat in bunch grassland.
Goodenia nuda (P4)	13/08/1965	743083 7497907	WA Herbarium no. PERTH 02611112	-

Table 5-2 Summary of Declared Rare and Priority Flora identified during the desktop assessment that were considered likely to occur within the Study Area

Species	Cons Code	Source	Presence	Recorded Location	Habitat	Study Area Suitability
Acacia effusa	P3	DEC List	Potential	Karijini NP, Mt Bruce, Hamersley ranges, Juna Downs	Low banded ironstone hills.	Suitable
Amaranthus centralis	P3	DEC List	Potential	Newman	River associated with <i>Cenchrus ciliaris</i> under <i>Eucalyptus camaldulensis</i> ; Mulga woodlands.	Suitable
Aristida jerichoensis var. subspinulifera	P1	WA Herb; DEC List	Potential	East Angelas, Sylvania station, Newman,	Open Acacia woodland over Triodia; hardpan clay	Suitable in Mulga communities associated with claypans
Aristida lazaridis	P2	WA Herb	Potential	Recorded at GDA94 735965:7445130	Hard spinifex hummock grassland with sparse overstorey of <i>Eucalyptus leucophloia</i>	Suitable
Brachyscome sp. Wanna Munna Flats (S. van Leeuwen 4662)	P1		Unknown	Herbarium record: GDA94 682328:7501113 on 15/09/1998	Mulga woodland; dense low grasslands; Corymbia deserticola and Acacia aneura over Triodia pungens; low in landscape flat terrain on cracking red clay-loam.	Suitable
Rostellularia adscendens var. latifolia	P3	WA Herb	Potential	Recorded in 2007 at GDA94 696692:7489375 and at 697173 : 7488999	Mulga woodlands associated with Hakea lorea, A. Tetragonophylla, Tephrosia rosea, Ptilotus obovatus, Cenchrus ciliaris, and Chrysopogon fallax.	Potential
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	P3	WA Herb	Potential		Hummock grassland of <i>Triodia</i> with <i>Acacia</i> and emergent Eucalypts; Mulga woodlands over <i>Eremophila forrestii</i> .	Suitable



5.2 Field Survey Results

The field survey effort is represented in **Table 5-3** and shows the number of quadrats sampled and the proportion of the Study Area surveyed. Some gaps in the survey sampling plan were identified; these are shown in **Figure 8**. Gaps in the survey were a result of access issues. The field survey quadrat data collected is provided in **Appendix C** showing all abundance data, descriptive data and photographs.

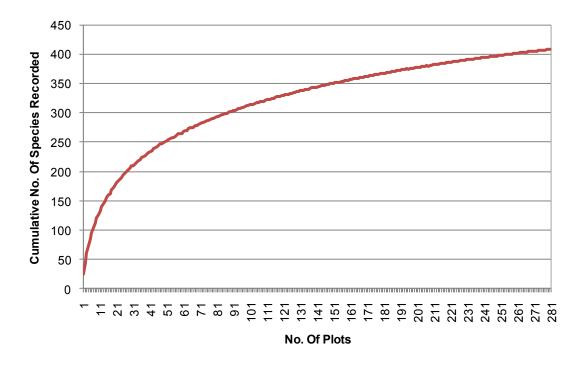
Table 5-3Summary of survey effort for the Nyidinghu Study

Field Phase	Effort	Proportion of Study Area Sampled
Phase 1	282 permanent quadrats established and monitored	0.4 %
Phase 2	227 re-monitored	0.3 %

A species area curve (also known as the species effort curve or the species accumulation curve) is commonly used to evaluate the adequacy of sample size in a community data set (McCune & Grace 2002). As shown in **Graph 2** the species area curve derived using the Nyidinghu Study field survey data increases rapidly and then starts to level out with:

- approximately 50% of species identified from less than 10% of the total number of quadrats surveyed; and
- approximately 90% of species identified using 65% of the total number of quadrats surveyed.

These characteristics of the species area curve provide a robust level of confidence that the field survey design was adequate for the size and floristic diversity of the Study Area.



Graph 2 Species area curve for the 282 quadrats monitored for the Nyidinghu Study, 2011

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5.2.1 Vegetation Communities

A total of 22 vegetation communities were observed and mapped in the Study Area. The distributions of identified vegetation communities within the Study Area are illustrated in **Figure 14** and further detailed in **Appendix C**. The dendrograms from the floristic community analysis (**Appendix D**) separated the vegetation communities into seven broad floristic types based on habitat and floristic structure. These categories are described below.

- Hummock grasslands on Sand Plains: five (5) communities dominated by Triodia species were identified on the sandy plains of the Study Area. The communities were characterised by sparse to isolated low trees (usually *Corymbia hamersleyana*) over open mixed Acacia shrublands over Triodia species.
- Fortescue Valley Sand Dune: PEC represented by one (1) vegetation community which was found in the northwest of the Study Area.
- Minor Creeklines and Floodplains: three (3) vegetation types were identified in areas where seasonal water flow is observed. Vegetation was dominated by several Acacia tree species over *Cenchrus ciliaris.
- Major Creeklines: one (1) community was identified as riparian vegetation found along major creek beds. This community was dominated by Eucalyptus victrix over *Cenchrus ciliaris.
- Hummock Grassland on Rocky Hills: one (1) community was identified on the skeletal soils of the low-lying hills. The community was characterised by isolated *Eucalyptus leucophloia* over sparse shrubs over *Triodia* sp. Shovelanna Hill IS. Van Leeuwen 3835).
- Cracking Clays; lacking a tree layer these four (4) communities all support chenopod species and were found in the north and northwest of the Study Area.
- Mulga on Clay / Clay Loam Plain: seven (7) Mulga dominated communities in the northern half of the Study Area were identified.

The most diverse vegetation community was CoAdTp. The most sampled community (highest number of quadrats in the community) was AaAsCc, represented by 55 quadrats. **Table 5-4** and **Table 5-5** summarises the species richness and broad community description for all vegetation communities observed within the Study Area. The NVIS sub-association descriptions for each quadrat are provided in **Appendix E**.



Table 5-4 Vegetation communities identified in the Study Area, their species richness and the extent of coverage (extent measured to nearest hectare, n = number of quadrats)

Vegetation Community	Broad Floristic Community Type	Species Richness	Extent (ha)	n		
Hummock Grasslands on Sand Plains						
ApAiTp	Triodia hummock grassland	92	203	4		
CoAdTs	Triodia hummock grassland	95	567	12		
CoAsTb	Triodia hummock grassland	147	1276	28		
СоАаТр	Triodia hummock grassland	84	348	7		
CoAdTp	Triodia hummock grassland	157	2974	31		
Fortescue Vall	ey Sand Dunes	_				
SsTs	Stylobasium sparse shrubland	41	25	4		
Minor Creeklin	es and Floodplains					
AcAhCc	Acacia open woodland	49	934	14		
ApAdCc	Acacia open woodland	118	2490	37		
AtSaTp	Acacia mallee woodland	94	64	8		
Major Creeklin	es					
EvAhCc	Eucalyptus woodland	61	618	7		
Hummock Gra	sslands on Rocky Hills					
EIGwTs	Triodia hummock grassland	105	420	16		
Cracking Clays	5			l		
AsCc	Acacia shrubland	21	109	3		
AsEp	Acacia shrubland	12	82	2		
МхЕу	Melaleuca shrubland	85	124	7		
MgCc	Melaleuca open shrubland	47	143	2		
Mulga on Clay / Clay Loam Plains						
AaAsCc	Acacia woodland	136	1050	21		
AaAsEs	Acacia open woodland	132	1886	15		
AaAsTp	Acacia woodland	119	2444	11		
AaAtCc	Acacia open woodland	101	326	9		
AaEfTp	Acacia woodland	105	736	8		
AaPsCf	Acacia woodland	143	2808	23		
AxAsSa	Acacia sparse woodland	66	863	9		

Table 5-5 Description of Vegetation communities identified in the Study Area

Code	Level V: Association
Hummoc	k Grasslands on Sand Plains
ApAiTp	Acacia pruinocarpa and Acacia citrinoviridis low open woodland over Acacia inaequilatera, Eremophila longifolia and Acacia ancistrocarpa mid to tall shrubland over Triodia pungens low hummock grassland
CoAdTs	Corymbia opaca and Eucalyptus gamophylla low isolated trees over Acacia dictyophleba, Hakea chordophylla and Acacia ancistrocarpa tall sparse shrubland over Triodia schinzii, Triodia basedowii and Triodia pungens low hummock grassland
CoAsTb	Corymbia opaca, Eucalyptus gamophylla and Acacia inaequilatera low open woodland over Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba and Acacia inaequilatera tall sparse shrubland over Triodia basedowii low hummock grassland
СоАаТр	Corymbia opaca, Acacia inaequilatera and Eucalyptus gamophylla low open woodland over Acacia ancistrocarpa, Petalostylis labicheoides and Grevillea wickhamii subsp. hispidula tall shrubland over Triodia pungens low hummock grassland
CoAdTp	Corymbia opaca and Acacia inaequilatera low to mid open woodland over Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba and Acacia pachyacra tall sparse shrubland over Triodia pungens low hummock grassland
Fortescu	e Valley Sand Dune Vegetation
SsTs	Stylobasium spathulatum and Acacia dictyophleba tall sparse shrubland over Triodia schinzii and Triodia basedowii low hummock grassland
Minor Cre	eklines and Floodplains
AcAhCc	Acacia citrinoviridis and Acacia pruinocarpa low open woodland over Atalaya hemiglauca and Hakea lorea subsp. lorea tall isolated shrubland over *Cenchrus ciliaris mid tussock grassland
ApAdCc	Acacia pruinocarpa, Corymbia hamersleyana and Acacia citrinoviridis low to mid open woodland over Acacia dictyophleba, Hakea lorea subsp. lorea and Acacia synchronicia tall sparse shrubland over *Cenchrus ciliaris and *Cenchrus setiger mid tussock grassland
AtSaTp	Acacia tumida var. pilbarensis, Grevillea wickhamii subsp. hispidula and Gossypium robinsonii low open mallee shrubland over Senna artemisioides subsp. oligophylla and Acacia adoxa var. adoxa mid sparse shrubland over Triodia pungens low hummock grassland
Major cre	ekline vegetation
EvAhCc	Eucalyptus victrix, Acacia citrinoviridis and Acacia pruinocarpa mid open woodland over Atalaya hemiglauca and Hakea lorea subsp. lorea tall isolated shrubland over *Cenchrus ciliaris and *Cenchrus setiger mid tussock grassland
Hummoc	k Grasslands on Rocky Hills
ElGwTs	Eucalyptus leucophloia subsp. leucophloia low open woodland over Grevillea wickhamii subsp. hispidula and Acacia bivenosa tall sparse shrubland over Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) and Triodia epactia low hummock grassland.
Cracking	Clay Vegetation
AsCc	Acacia synchronicia mid sparse shrubland over Atriplex amnicola and Maireana pyramidata and Rhagodia eremaea mid Chenopod open shrubland
AsEp	Acacia sclerosperma subsp. sclerosperma, Acacia xiphophylla and Acacia synchronicia tall open shrubland over Enneapogon polyphyllus low open grassland
МхЕу	Melaleuca xerophila, Acacia synchronicia and Eremophila youngii subsp. lepidota mid to tall shrubland over Atriplex amnicola mid to tall Chenopod shrubland
MgCc	Melaleuca glomerata, Acacia tetragonophylla and Eremophila youngii subsp. lepidota tall shrubland over *Cenchrus ciliaris mid tussock grassland
AxAsSa	Acacia xiphophylla and Acacia aneura low isolated trees over Acacia synchronicia and Acacia tetragonophylla mid to tall sparse shrubland over Salsola australis Maireana pyramidata and

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Code	Level V: Association
	Sclerolaena cuneata low sparse chenopod shrubland
Mulga on	clay / clay loam plains
AaAsCc	Acacia aneura and Acacia pruinocarpa woodland over Acacia synchronicia shrubland over *Cenchrus ciliaris and *Cenchrus setiger tussock grassland
AaAsEs	Acacia aneura low to mid open woodland over Acacia synchronicia tall shrubland to open shrubland over Eragrostis setifolia low sparse grassland
AaAsTp	Acacia aneura, Acacia aptaneura and Acacia pruinocarpa low woodland to open woodland over Acacia synchronicia and Psydrax latifolia tall open shrubland over Triodia pungens low hummock grassland
AaAtCc	Acacia aneura and occasional Eucalyptus victrix low to mid open woodland over Acacia tetragonophylla, *Vachellia farnesiana and Acacia synchronicia mid to tall open shrubland over *Cenchrus ciliaris mid tussock grassland
AaEfTp	Acacia aneura, Acacia pruinocarpa and Acacia aptaneura low woodland over Eremophila forrestii, Acacia ancistrocarpa and Acacia tetragonophylla tall open shrubland over Triodia pungens low hummock grassland
AaPsCf	Acacia aneura low woodland over Psydrax latifolia, Acacia tetragonophylla and Acacia synchronicia tall open shrubland over Chrysopogon fallax and *Cenchrus ciliaris low to mid open tussock grassland

5.2.2 Threatened and Priority Ecological Communities

No Threatened Ecological Communities were identified during the field surveys of the Study Area.

Two Priority Ecological Communities (PECs) were recorded within the vicinity of the Study Area at the locations illustrated in **Figure 15**. These PECs and details concerning their occurrence are as follows:

Fortescue Marsh (Marsh Land System) - Priority 1

The Fortescue Marsh was identified as occurring in the northern portion of the Study Area. The associated samphire communities were not identified during the field survey however consideration should be given to this PEC due to the close proximity to the proposed Nyidinghu Project. Access issues prevented the field teams from reaching the edge of the Fortescue Marsh PEC.

Fortescue Valley Sand Dunes - Priority 3

The Fortescue Valley Sand Dune (FVSD) PEC was identified in the northwest of the Study Area. This was correctly identified in the desktop assessment and further verified during the field survey. The associated vegetation community identified for the Nyidinghu Study was the SsTs shrubland community comprising of *Stylobasium spathulatum* over *Corchorus ?elachocarpus* and *Triodia* species. This concurs with the description of the Fortescue Valley Sand Dune PEC as listed by the DEC (2011c).

5.2.3 Other Communities of Conservation Interest

The Study Area supports one community identified by Kendrich (2001) as an area of value, namely, the grove-intergrove Mulga communities at the southern end of the northern apron of the Hamersley Range. Furthermore, the draft guideline for Environmental and Water Assessments Relating to Mining Operations in the Fortescue Marsh Area (DoW, DEC, OEPA 2011) states that Mulga vegetation

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communities on the Marillana Plain are of key environmental value for surface water management in the Fortescue Marsh because they are known to support sheet flow dependent Mulga communities.

There are six Mulga communities identified in the Study Area that occur on the Marillana Plain and are therefore deemed as having a high environmental value. These Mulga communities are described in **Table 5-6**. The spatial distribution of vegetation within all six communities mentioned indicated that they are entirely or partially sheet flow dependent.

Table 5-6 Mulga communities on the Marillana Plain

Vegetation Community	Description	Area (ha)
AaAsTp	Acacia aneura, Acacia aptaneura and Acacia pruinocarpa woodland to open woodland over Acacia synchronicia and Psydrax latifolia open shrubland over Triodia pungens hummock grasslands.	1899
AaAtCc	Acacia aneura and occasional Eucalyptus victrix woodland over Acacia tetragonophylla, *Vachellia farnesiana and Acacia synchronicia open shrubland over *Cenchrus ciliaris tussock grassland.	326
AaEfTp	Acacia aneura, Acacia pruinocarpa and Acacia aptaneura woodland over Eremophila forrestii, Acacia ancistrocarpa and Acacia tetragonophylla open shrubland over Triodia pungens hummock grassland.	192
AaAsCc	Acacia aneura and Acacia pruinocarpa woodland over Acacia ?synchronicia shrubland over *Cenchrus ciliaris and *Cenchrus setiger tussock grassland.	366
AaAsEs	Acacia aneura open woodland over Acacia synchronicia shrubland to open shrubland over Eragrostis setifolia sparse grassland	1441
AaPsCf	Acacia aneura woodland over Psydrax latifolia, Acacia tetragonophylla and Acacia synchronicia open shrubland over Chrysopogon fallax and *Cenchrus ciliaris open tussock grassland.	2335

These communities exhibit sheet flow dependence by their spatial pattern within the Study Area representing grove-intergrove Mulga communities (bands of Mulga characterised by 'groves' of bare areas). An example of this is shown in **Figure 17**.

5.2.4 Vegetation Community Condition

Several types of disturbance to vegetation communities were observed within the Study Area including:

- cattle (trampling, soil compaction, grazing and spread of introduced species);
- fire;
- mining, with Weeli Wolli Creek altered by upstream mining activities and disturbance from historical exploration activities evident along southwest border;
- vehicle tracks; and
- introduced flora species that have caused displacement of native vegetation.

The condition of vegetation communities observed in the Study Area ranged from Excellent to Good condition, using Trudgen's Vegetation Condition Scale (1991), with the recorded pattern of spatial variation in vegetation condition illustrated in **Figure 18**.

Dense weed infestations were observed in multiple vegetation communities. In vegetation associated with major creeklines (EvAhCc) *Cenchrus ciliaris had clearly displaced native herbaceous species by dominating the understorey layer. The spread of introduced species is likely caused by a combination of wind, surface water, native animal and livestock seed dispersion.

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Damage from cattle was evident throughout the area, particularly near the Roy-Hill road. Heavily grazed areas were barren, with only dead tufts of grass remaining. Near Weeli Wolli Creek the cattle have created numerous tracks where the ground is heavily compacted leaving it bare and uninhabitable due to heavy soil compaction.

Photographs of disturbances are in **Appendix C3**.

5.2.4.1 Fire

There were several old fire scars observed from the aerial photography of the Study Area. Evidence of the fire showed they were approximately 2-5 years old. Australian native vegetation is adapted to fire and often recover quickly. Alterations in fire regimes however could have negative impacts on the community composition particularly if introduced species are pioneering species that are able to take advantage of fire events.

5.2.5 Flora

A total of 392 vascular native plant species were recorded during the field surveys of the Study Area representing 151 genera and 46 families. Of all species recorded, 91 taxa were recorded once (singletons) and 52 taxa were recorded twice within the Study Area. **Table 5-7** and **Table 5-8** tabulate the most diverse families and genera recorded in the Study Area. A complete species list is presented in **Appendix B1** and a species by quadrat matrix is presented in **Appendix B2**.

There are several reasons for the discrepancy between the species area accumulation curve total number of species (405) and the total number of species shown in **Appendix B1**. The species area accumulation curve considered all species, native and introduced species. Specimens that were not able to be accurately identified (denoted by a '?', e.g. *Acacia ? aneura*) however were already represented by other specimens that were accurately identified (*Acacia aneura*), were excluded from the species list.

Table 5-7 Summary of families with the highest recorded species richness for the Nyidinghu Study

Family	No. of Native taxa
Fabaceae	76
Poaceae	63
Malvaceae	40
Amaranthaceae	19

Table 5-8 Summary of genera with the highest recorded species richness for the Nyidinghu Study

Genus	No. of Native taxa
Acacia	36
Ptilotus	13
Eremophila	10
Senna	10

5.2.5.1 Conservation Significant Species

No Threatened Flora (Declared Rare Flora) pursuant to subsection 2 of section 23F of the *WC Act* 1950 or Threatened Flora species pursuant to Schedule 1 of the *EPBC* Act were recorded within the Study Area.

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A targeted search was undertaken for the Priority 1 species *Lepidium catapycnon* which was the only Threatened Flora identified during the desktop assessment as occurring in the Study Area. The targeted search for *Lepidium catapycnon* did not recover any plants at the location where it has previously been recorded (**Figure 11**). The following factors may contribute to this:

- the record was from an isolated population of *Lepidium catapycnon* which was not detectable at the times of survey due its short-lived nature; and/or
- the prevalence of unfavourable climate or other habitat conditions that were not present in 1999 when the record was made;

Six Priority Flora species were recorded within the Study Area during the field surveys. Three of these species, namely *Calotis squamigera*, *Eragrostis crateriformis* and *Vigna sp.* Central (M.E. Trudgen 1626), were not identified in the Desktop Survey. Details concerning the recorded species, including the vegetation type(s) within which they were recorded, are presented in **Table 5-9**. Locations of Priority Flora species are illustrated in **Figure 12** and tabulated in **Appendix H**.

Table 5-9 Details of Declared Rare and Priority flora recorded in the Nyidinghu Study Area

Species (Status)	Life form and habitat	Number of WAH records	Number of Study Area quadrat records	Associated Vegetation Communities (n=number of quadrat records)
Calotis squamigera (P1)	Procumbent annual herb that grows up to 0.21 metres high and is commonly associated with pebbly loam soils.	1	2	AaAsTp (n=1)
Eragrostis crateriformis (P3)	Annual grass that grows 0.17-0.42 metres in height and is commonly associated with creek banks and depressions.	9	2	AaPsCf (n=2-5)
Eremophila spongiocarpa (P1)	An intricate spreading shrub that grows 0.5-1 metres tall. Branches are rigid and spinescent. Plants are only known from saline soils around the Fortescue Marsh.	18	2	MxEy (n=6-10)
Eremophila youngii subsp. lepidota (P4)	Shrub with persistent lucid scales on the branches and leaves that is commonly associated with low-lying areas subject to periodic flooding on red-brown clay or sandy loams. They usually occur in Mulga woodlands.	25	8	MxEy (n=50-100) MgCc (n=13-30)
Goodenia nuda (P4)	An erect ascending herb that grows up to 0.5 metres.	20	5	AaPsCf (n=1) AaAsTp (n=4-10) AaAtCc (n=6-10) AaEfTp (n=1)
Vigna sp. Central (M.E. Trudgen 1626) (P2)	Little is known about distribution or characteristics of this species at this time.	6	1	MgCc (n=1)

5.2.5.2 Other Native Species of Interest



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Other species of conservation interest include *Melaleuca xerophila*. This species is uncommon in the Pilbara and location within Study Area is northern limit of distribution. The populations of *Melaleuca xerophila* and associated vegetation communities within the Study Area are significant and have a high conservation value.

Table 5-10 Details of flora of interest recorded in the Nyidinghu Study Area

Species	Life form and habitat	Number of WAH records	Number of Study Area quadrat records	Associated Vegetation Communities* (n=number of quadrat records)
Melaleuca xerophila	Shrub or tree 2-6 metres high. White flowers flowering August to October. Grows on calcareous soils in depressions and margins of salt lakes.	57	7	MgCc (n=2-5) MxEy (n=11-25)

5.2.5.3 Introduced Species

Ten introduced species were recorded in the Study Area, locations and details of these are illustrated in **Figure 13** and detailed in **Appendix H**.

None of the introduced species are listed as:

- declared Plants under the Agriculture and Related Resources Protection Act 1976; or
- weeds of national significance (Thorp and Wilson 1998-).

The most common introduced species recorded was *Cenchrus ciliaris (Buffel Grass), which dominated several vegetation communities, creeks and floodplains in particular. Four species are considered to have a high environmental impact on biodiversity according to the Environmental Weed Strategy of Western Australia (DEC 2008-2010). Details concerning the introduced species are summarised in **Table 5-11**.

Table 5-11 Introduced species recorded (note: number of plants is an average)

Species	Life form and habitat	Comments	No. of Q	Rating (DEC 1999)
*Aerva javanica	Erect, much-branched perennial herb that grows up to 1.6 metres high. Commonly found on sandy soils along drainage lines.	Used to assist in the revegetation of degraded rangelands	15	High
*Bidens bipinnata	Erect annual herb that can grow up to 1.5 metres high. Grows on alluvium, clay, loam over sandstone and limestone. Commonly found along rivers and creeks, coastal areas, and rocky hillsides.	Often spread by cattle	24	-
*Cenchrus ciliaris	Tufted perennial grass that grows up to 1.5 metres high. Grows on white, red or brown sand, stony red loam and black cracking clay.	Fodder food planted by farmers for their cattle. Spreads rapidly as a result of vehicle and cattle movements.	207	High
*Cenchrus setiger	Erect tussocky stoloniferous perennial grass that grows up to 0.5 metres high. Found on brown sands, red loam, and pindan soils. Commonly found on sand dunes, plains, rangelands, stony hillsides, and floodplains.	Fodder food planted by farmers for their cattle. It is a serious weed of watercourses from Carnarvon to the Kimberley.	37	High
*Citrullus lanatus	Trailing annual herb that is commonly found on plains, riverbanks, centres of drying lakes, drainage areas and disturbed areas.		1	Low
*Echinochloa colona	Tufted annual grass that grows up to 0.6 metres tall. Found on black sand and black clay along creeks, swamps and irrigated crops in the Kimberley and Pilbara region.		3	Mild
*Malvastrum americanum	Erect perennial herb that grows up to 1.3 metres tall. Found on orange/red/yellow sands, gritty alluvial sand, black/brown clay, alluvial cracking clays, limestone, and calcrete soils on stony ridges and hillsides, floodplains and along drainage lines.		34	Moderate
*Portulaca oleracea	Prostrate succulent herb	Common and widespread weed of horticulture, paddocks and gardens.	128	-
*Setaria verticillata	Loosely tufted annual grass that grows on sand, clay and loam soils.	Widespread weed of disturbed land from the Kimberley and Pilbara to Three Springs.	2	Low
*Vachellia farnesiana	Erect, spreading, thicket-forming, thorny tree or shrub that grows up to 4 metres tall. The bark is dark grey and rough and has pinnate leaves. Grows on stony sandy clay or loam soils and gravel. Commonly found in low-lying areas, river and creek banks, and disturbed sites.		19	High



5.3 Bore-field Injection Area Mapping

A total of 3 broad floristic community types were identified as being partially or entirely dependent on water and occurring within the proposed 121,732 hectare bore-field injection area. Details concerning the structure of these communities, their status with respect to surface/groundwater dependence, and extents within the bore-field injection area are provided in **Table 5-12**. The distributions of the identified vegetation communities within the bore-field injection area are illustrated in **Figure 19**.

The communities mapped were defined and categorised based on their broad floristic community type due to the large extent of the bore-field injection area. The following three community types were identified:

- major creekline vegetation;
- Samphire communities on clay / sandy clay plains; and
- Mulga on clay / clay loam plains

The Samphire community was not identified anywhere in the bore-field injection area and was not recorded in the Nyidinghu Study Area.

Table 5-12 Broad floristic community types mapped within the bore-field injection area

Broad Floristic Community Type	Description	Water Dependence	Area (ha)
Major Creekline Vegetation	Communities dominated by <i>Eucalyptus victrix</i> which is commonly associated with major water courses.	Partially phraetophytic species	
Samphire communities on clay / clay loam flats	Communities dominated by <i>Halosarcia</i> species.	Groundwater	0
Mulga on clay / clay loam plains	Communities dominated by <i>Acacia aneura</i> species growing in bands (see Figure 17). Requires sheet water flow for "key aspects of their survival" (Eco Logical 2010). The Mulga stands are important for nutrient capture, by absorbing water that runs off bare areas the Mulga stands create nutrient pockets which enables the growth of other perennial species.	Surface water	

Eucalyptus victrix is commonly associated with major water courses, including in the Nyidinghu Study Area where it dominated the edges of Weeli Wolli Creek.

Samphire communities are dominated by *Halosarcia* species and typically occur in areas where groundwater is close to the surface (Gregg Barrett & Associates Pty Ltd 2005).

Acacia aneura complexes were delineated within the bore-field injection area. Acacia aneura stands ranged from closed (>70 %) to open (<30 %) with some stands growing in a ribbed pattern across the direction of overland sheet flow.

5.4 Regional Analysis

Regional analysis was undertaken by M.E. Trudgen and Associates (**Appendix I**). A detailed review was undertaken by John Delaney, a Principal Ecologist for Cardno. This is provided in **Appendix J**. The regional statistical analysis uses a dataset created by MET (Malcolm Trudgen) and consists of data obtained from previous studies conducted in the Pilbara. The spatial distribution of the dataset is

shown in. Please note that the Nyidinghu Rail data is excluded from this discussion however is still visible on **Figure 20**.

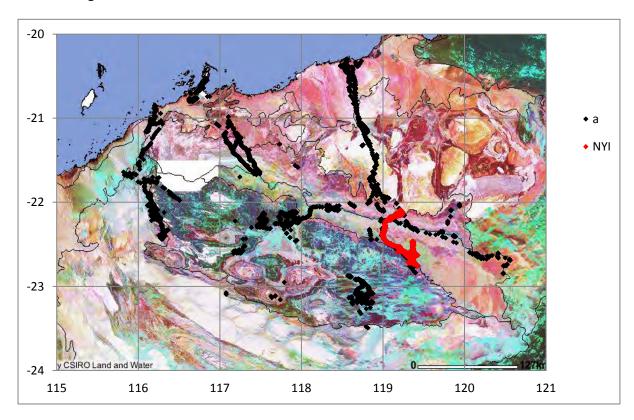


Figure 20 Spatial distribution of reference sites and Nyidinghu sites, black = reference, red = Nyidinghu (derived from Griffin and Trudgen 2012).

The reference data set has been divided into 600 groups which is described by Griffin & Trudgen (2012) as being somewhat similar level of synthesis to the "plant community" and "vegetation association" concepts. The analysis results were divided into three categories, reasonable, moderate and poor. Below is a list of communities and their association with the reference groups. **Table 5-13** shows the number of quadrats representing each vegetation community and their 'association' with the reference groups.

There are six vegetation communities that have no "reasonable" similarity at the 600- group level: AsCc; AsEp; AxAsSa; EvAhCc; and MxEy. These communities were mainly grouped into the Chenopods on Clay / Sandy Clay Plains and Major Creekline broad floristic types. Community MgCc showed one quadrat showed "reasonable" similarity, and one quadrat showed "poor" similarity to the reference sites.

Hummock grasslands on sand plains showed that a higher number of quadrats were "reasonably" similar than "moderately" similar, indicating adequate representation in the reference data set. The Fortescue Valley Sand Dune community was adequately represented; this is likely due to oversampling of this PEC community from government agencies. Acacia woodlands in flowlines are reasonably to moderately represented in the reference data set. Species in these communities are common in the Pilbara therefore these units are likely to be widespread when analysis is done only on presence absence data. Hummock grasslands on rocky hills refer to communities on the Hamersley Range escarpment. Due to a number of large projects continuing in the Hamersley Ranges and the addition of this data in the reference data set this community is also reasonably to moderately well represented. Mulga on clay / clay loam plain vegetation are moderately represented, showing unique spatial distribution of grove/intergrove mulga as a result of drainage from the Weeli Wolli Creek.

Table 5-13 Vegetation Community similarity with the 600- reference groups shown by number of quadrats classified as "reasonable", "moderate", and "poor".

Code	Reasonable	Moderate	Poor
Hummock G	rasslands on Sand Pl	ains	
ApAiTp	2	2	0
CoAdTs	10	2	0
CoAsTb	20	8	0
СоАаТр	5	2	0
CoAdTp	23	8	0
Fortescue Va	alley Sand Dune Vege	etation	
SsTs	4	0	0
Acacia wood	llands in Flowlines		
AcAhCc	5	9	0
ApAdCc	11	26	0
AtSaTp	3	5	0
Major Creekl	ines		
EvAhCc	0	6	1
Hummock G	rasslands on Rocky l	Hills	
ElGwTs	9	7	0
Chenopods of	on Clay / Sandy Clay	Plains	
AsCc	0	2	1
AsEp	0	0	2
MxEy	0	5	2
MgCc	1	0	1
Mulga on Cla	y / Clay Loam Plain \	/egetation	
AaAsCc	4	16	1
AaAsEs	8	7	0
AaAsTp	3	8	0
AaAtCc	3	5	1
AaEfTp	6	2	0
AaPsCf	8	15	0
AxAsSa	0	9	0

6 Discussion

The Nyidinghu flora and vegetation survey was conducted in accordance with Guidance Statement 51 thereby ensuring that information is sufficient for the EPA to assess potential impacts. Due to the nature and scale of the proposal, a Level 2 survey was completed. A total of 282 permanent $50 \times 50m$ quadrats were established and monitored twice incorporating two seasons. The species area accumulation curve illustrates a steep incline that levels off. This indicates a robust level of confidence that the intensity of sampling was adequate for the size of the Study Area.

6.1 Vegetation Communities

There were 22 vegetation communities identified and delineated within the Nyidinghu Study Area. Data analysis grouped these into seven categories based on habitat and floristic composition and structure. The seven categories include:

- Hummock grasslands on sand plains
- Fortescue Valley Sand Dune
- Acacia woodland in flowlines
- Major Creeklines
- Hummock grasslands on rocky hills
- Chenopods on clay/sandy clay plains
- Mulga on clay/clay loam plains.

For the purposes of this report vegetation is considered to be of "conservation significance" if it contains:

- Species that are at the edge of their known range and that are a dominant species in the vegetation community.
- Vegetation units described in relevant literature as being floristic communities of conservation significance.
- Communities recognised in the literature as of conservation significance.

The Priority 3 Fortescue Valley Sand Dune (FVSD) community was identified within the Nyidinghu Study Area in the northwest and mapped as SsTs. The FVSD community located within the Study Area is 25 hectares in size and has a species richness of 41 species. The area was heavily grazed and dominated the understorey by *Cenchrus ciliaris (Buffel Grass) which is an aggressive introduced species. The FVSD was found 15-20 kilometres northeast from the ground disturbance activities proposed in the Nyidinghu Mining Proposal. All data obtained from quadrats situated within the FVSD community has been submitted to the DEC.

The Draft guideline for Environmental and Water Assessments Relating to Mining Operations in the Fortescue Marsh Area (DoW, DEC and OEPA 2011) recognises Mulga woodlands on the Marillana Plain as having a significant environmental value due to its association with sheet flow. Sheet flow dependent vegetation provides important ecological functions, the interaction between the vegetation bands and bare patches have implications on the routing of water, sediments, nutrients, seeds and litter. Sheet flow vegetation reduces surface water flow rates and helps distribute surface water over a broad area, thereby reducing erosion (Cammeraat and Imeson 1999).

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There were six Mulga communities identified in the Study Area which occur on the Marillana Plain:

- AaAsCc- Acacia aneura and Acacia pruinocarpa woodland over Acacia ?synchronicia shrubland over *Cenchrus ciliaris and *Cenchrus setiger tussock grassland.
- AaAsTp Acacia aneura, Acacia aptaneura and Acacia pruinocarpa woodland to open woodland over Acacia synchronicia and Psydrax latifolia open shrubland over Triodia pungens hummock grasslands.
- AaAsEs Acacia aneura open woodland over Acacia synchronicia shrubland to open shrubland over Eragrostis setifolia sparse grassland
- AaAtCc- Acacia aneura and occasional Eucalyptus victrix woodland over Acacia tetragonophylla,
 *Vachellia farnesiana and Acacia synchronicia open shrubland over *Cenchrus ciliaris tussock grassland.
- AaEfTp Acacia aneura, Acacia pruinocarpa and Acacia aptaneura woodland over Eremophila forrestii, Acacia ancistrocarpa and Acacia tetragonophylla open shrubland over Triodia pungens hummock grassland.
- AaPsCf Acacia aneura woodland over Psydrax latifolia, Acacia tetragonophylla and Acacia synchronicia open shrubland over Chrysopogon fallax and *Cenchrus ciliaris open tussock grassland.

The spatial distribution of vegetation within all six communities mentioned indicated that they are entirely or partially sheet flow dependent. Alterations in surface water flow as a result of development may potentially impact these Mulga woodlands.

It should be recognised that there is already a railway line dissecting the Nyidinghu Study Area. The existing railway is likely to have already adversely affected surface water flow between the Hamersley Ranges and the Fortescue Marsh therefore development to the south of the existing railway is unlikely to cause further impact to these communities.

6.2 Flora

6.2.1 Native Species

392 vascular native plant species were recorded during the field surveys of the Study Area representing 151 genera and 46 families. The Fabaceae family was the most diverse with 68 recorded Fabaceae species followed by Poaceae (54 species), Malvaceae (36 species) and Amaranthaceae (19 species). The Acacia genera was the best represented with 31 Acacia species recorded. The average number of species recorded per quadrat was 25 species (± 0.63 standard error).

The desktop assessment results showed that five flora species of conservation significance have previously been recorded within the Study Area, namely, *Lepidium catapycnon* (R), *Stylidium weeliwolli* (P2), *Acacia subtiliformis* (P3), *Atriplex flabelliformis* (P3) and, *Goodenia nuda* (P4).

A targeted search was undertaken for the Priority 1 taxon, *Lepidium catapycnon* but no populations were recorded in the vicinity of the previous record or elsewhere within the Study Area. It is likely that the historical record of the *Lepidium catapycnon* was an exceptional find or that coordinates for the WAH record are incorrect. The WAH record of *Lepidium catapycnon* was from 1999 and located on sandy soils on a flat plain. This location description in of itself is unusual as the preferred habitat of *Lepidium catapycnon* are hills with skeletal soils of the Hamersley Ranges. It is possible that the record was from an isolated population of *Lepidium catapycnon* which was not detectable at the times of survey due its short-lived nature; or that the prevalence of unfavourable climate or other habitat conditions that were not present in 1999 when the record was made.

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Calotis squamigera (P1) was recorded at one quadrat situated in the centre of the Study Area where only one individual was recorded. The vegetation community (AaAsTp) comprised of *Acacia aneura* and *Acacia pruinocarpa* open woodland over *Psydrax latifolia* and *Eremophila forrestii* subsp. *forrestii* over *Chrysopogon fallax* and *Triodia pungens*.

Eragrostis crateriformis (P3) populations were recorded at two locations, each represented by only one individual. *Eragrostis crateriformis* was associated with AaPsCf, comprising of *Acacia aneura* woodlands over *Psydrax latifolia*, *Acacia synchronicia* and *Acacia tetragonophylla* over *Chrysopogon fallax*, *Corchorus tridens* and mixed herbs. *Eragrostis crateriformis* has previously been associated with creek banks and depressions suggesting that these locations in the Study Area are low-lying depressions where water is more often readily available. A flowering specimen was collected and vouchered for the WAH.

Two populations of *Eremophila spongiocarpa* (P1) were recorded. One population comprised of 2-5 individuals, the other comprised of 6-10 individuals. Both populations were recorded in the northern portion of the Study Area in community MxEy, comprising of *Melaleuca xerophila*, *Acacia synchronicia* and *Eremophila youngii* subsp. *lepidota* shrubland over *Atriplex amnicola* heath shrub. Due to the locations of the *Eremophila spongiocarpa* populations in the northern portion of the Study Area it is unlikely that they will be adversely affected by the Nyidinghu proposal.

Eight populations of *Eremophila youngii* subsp. *lepidota* (P4) were recorded, each population comprising of five individuals at a minimum. All populations of *Eremophila youngii* subsp. *lepidota* were recorded in the northern portion of the Nyidinghu Study Area, commonly associated with *Acacia synchronicia*, *Acacia xiphophylla* and *Acacia aneura* woodlands over *Psydrax latifolia*, *Atriplex amnicola* and *Corchorus tridens* over *Cenchrus ciliaris, Enneapogon polyphyllus and Chrysopogon fallax.

Goodenia nuda (P4) was recorded at five quadrats in the Nyidinghu Study Area in Field Phase 1. Three of these populations were not recovered in Phase 2. It is likely that the lack of available soil moisture during Phase 2 caused these plants to die. *Goodenia nuda* was commonly associated with grove/intergrove Mulga communities characterised by large bare patches and clumps of Mulga vegetation on red brown clay loam soils.

One plant of **Vigna sp. Central (M.E. Trudgen 1626)** was identified in one quadrat. The species was found in the northern portion of the Study Area in association with community MgCc comprising of *Melaleuca glomerata, Acacia tetragonophylla* and *Eremophila youngii* subsp. *lepidota* shrubland over *Cenchrus ciliaris tussock grassland. Little is known about *Vigna* sp. Central's distribution or characteristics at this time.

6.2.2 Introduced Species

Ten introduced flora species were recorded in the Study Area, none of which are classified as Weeds of National Significance (Department of Sustainability, Environment, Water, Population and Communities 2009) or a Declared Weeds under the *Agriculture and Related Resources Protection Act* 1976, or considered weeds of national significance by the National Weeds Strategy Executive Committee (NWSEC) (Thorp and Wilson 1998).

*Cenchrus ciliaris was the most common introduced species and was recorded in 207 quadrats (73% of quadrats), often in high abundance. The presence of this invasive grass has caused displacement of native herbaceous plants especially in vegetation communities associated with flowlines. Cattle observed in the Study Area are likely contributors to the spread of *Cenchrus ciliaris in the region.

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Historically, farmers have purposely seeded *Cenchrus ciliaris and *Cenchrus setiger to provide fodder food for their cattle (Hussey et al 1997). Vegetation communities dominated by *Cenchrus ciliaris are likely to be susceptible to bush fires due to the increased fuel load. The DEC environmental weeds strategy lists *Cenchrus ciliaris as having a high ecological impact, causing acute disruption of ecological processes by dominating and significantly altering vegetation structure and composition (DEC 2008-2010).

6.3 Fire

The flora species and vegetation communities occurring within the Study Area are adapted to and reliant on the periodic fire events. The timing, frequency and intensity of sequential fire events experienced within each part of the Study Area would have been one of the primary determinants of the species composition, structure and condition of the vegetation growing in that area.

In general terms any change in the frequency/intensity of fire has the potential to have adverse impacts on the flora species and vegetation occurring in that area. This includes the exclusion of fire from an area, which can result in long-term changes in the vegetation structure, species composition and fuel loads. The eventual occurrence of a high intensity fire can result in a series of changes associated with diminished post-fire regeneration of the vegetation.

6.4 Dust

Several flora species of conservation significance occur in close proximity to proposed infrastructure locations and are likely to be impacted by dust. The impact of dust on vegetation remains uncertain although a study into such impacts is currently being conducted (G. Turner Masters study, pers comm.). Species of conservation significance that were identified as occurring in close proximity to proposed infrastructure include:

- Eragrostis crateriformis P3; and
- Goodenia nuda

 P3.

Dust related impacts are likely to be minor provided that appropriate dust suppression measures are implemented, however monitoring of the impact of dust on vegetation and flora of conservation significance is recommended.

6.5 Regional Analysis

The following communities showed only "moderate" or "poor" associations with reference data groups:

- AsCc
- AsEp
- AxAsSa
- EvAhCc
- MxEy

Of these communities, three (AsCc, AsEp and MxEy) are associated with the broad floristic type of Chenopods on clay / sandy clay plains. This broad floristic type is associated with the southern edge of the Fortescue Marshes, acting as a buffer between the Mulga (*Acacia aneura* spp.) communities on clay / clay loam plains and the samphire communities associated with the Fortescue Marshes. As the Fortescue Marshes is a unique land system in the Pilbara all vegetation communities associated with it are expected to be poorly represented on a regional scale.

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The community AxAsSa represents *Acacia xiphophylla* and scattered *Acacia aneura* trees over sparse Acacia shrubland and sparse Chenopod shrubland. This community creates a mosaic with communities associated with denser Mulga leading up to the Chenopod communities mentioned previously.

Community EvAhCc is associated with Weeli Wolli Creek and is unique on the Fortescue Valley physiographic unit. This vegetation unit is therefore locally and regionally unique and not well represented in the reference data set.

The key findings of a review undertaken by John Delaney (Cardno 2012) of the regional analysis report (Griffin & Trudgen 2012) were:

Geomorphology and the underlying geology are major influence on the formation and distribution of the floristic groups found by the classification. Superficially (at the scale of the images), it appears that many of the floristic groups have similar geographic patterns. It is likely that this represents different segments of catenas (also referred to as land units within the land system mapping). In other terms, this represents rapid change in floristic composition over short distances due to differences in soils and habitats.

Overall, the distribution of sites allocated to discrete floristic units by the analysis seems to make sense with some caution needed in the interpretation. The basic problem (as much as data issues) is likely to be that the assignment of the data to only six hundred groups forces too much variation into many of these groups. It seems that when areas (based on geology and physiography) not well sampled in the reference data set are added to the analysis, then new units are encountered. This seems to be the case for the Weeli Wolli alluvial fan, the Fortescue Valley and other such physiographic units in the survey area. Possibly surprisingly it seems to be the case for the Chichester Plateau, which is somewhat better sampled in the reference data set than the Weeli Wolli alluvial fan.

The Weeli Wolli alluvial fan (and to some unknown level the Fortescue River alluvial fan) has a significant diversity of floristic types not found in the 2,883 site reference data set. While it is obvious that five of these types were not in the reference data because it did not sample the Weeli Wolli alluvial fan, it does not take away from the fact that these units are restricted to the alluvial fan and for the other three largely restricted to it in the available data.

The logical conclusion is that the Weeli Wolli alluvial fan has quite high floristic diversity in the vegetation that occurs in it and that a significant portion of this variation is likely to be restricted to it, or to it and the adjoining Fortescue River alluvial fan.

The conclusion is that the Hamersley Escarpment has relatively low floristic diversity in the vegetation that occurs on it in the Nyidinghu area and little of the variation is likely to be restricted to the Nyidinghu area. However, it should be noted that there are relatively few sites from the Escarpment in the Nyidinghu data set, which contributes to the lower diversity compared to the Weeli Wolli alluvial fan.

The regional analysis was undertaken based on floristics only based on presence and absence of species. This limits the analysis somewhat as community structure and abundance are not taken into consideration. This approach to the analysis is considered the most appropriate for a dataset of this size.

7 Impact Assessment

A comprehensive analysis of potential impacts on vegetation communities and flora was completed for the Nyidinghu Study Area. Fortescue supplied Cardno with infrastructure locations and extent of the area that would be disturbed to facilitate the implementation of the proposed Nyidinghu Project.

Based on available information this impact assessment considers the likely impact of the Nyidinghu Project in relation to:

- vegetation clearance activities;
- alterations to surface hydrology;
- alterations to groundwater hydrology;
- introduced species;
- alterations to natural fire regimes; and
- dust.

7.1 Vegetation Clearance Impacts

Vegetation clearing is an immediate direct impact that will result from the proposed implementation of the Nyidinghu Study. Vegetation clearing will be required for the purpose of establishing the mining pit(s), waste dump(s), stockpile areas, associated iron ore processing and handling infrastructure, mining camps and bore-fields.

7.1.1 Impacts of Vegetation Communities

Patterns of vegetation clearing within the Study Area will not be uniform with the primary areas of vegetation clearing to be located in the south of the Study Area. The impact of vegetation clearing will therefore vary between vegetation communities dependent on the location of infrastructure associated with the Nyidinghu Project.

The Beard (1975) pre-European vegetation types identified within the Study Area currently have 99.93% to 100% of vegetation remaining. Therefore, vegetation clearing and potential indirect impacts to vegetation is not expected to cause any of the vegetation communities to drop below the threshold level of 30 % of pre-European vegetation.

Regional analysis indicates that communities not represented, or poorly represented elsewhere in the Pilbara include:

- AsCc
- AsEp
- AxAsSa
- EvAhCc
- MgCc
- MxEy

Therefore mentioned communities have either:

- no quadrats that are "reasonably" similar to reference data; or
- less than 50 % of quadrats are "reasonably" or "moderately" similar to reference data.

It is unlikely that direct impacts from vegetation clearing will affect the communities in the northern corridor (AsCc, AsEp, AxAsSA, MgCc, and MxEy) due to the Nyidinghu Proposal in its current form. Details regarding the exact location of infrastructure will determine whether community EvAhCc

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(Weeli Wolli Creek) will be impacted by clearing. Potential indirect impacts are more likely to affect this community.

7.1.2 Impacts on Flora of Conservation Significance

Analysis of impacts to flora of conservation significance was based on the number of populations/individuals present within the Study Area compared to the number of populations known locally and regionally. To determine the regional and local significance of Priority Flora populations the following rankings were used:

- High species located only in Study Area; <10 known populations in total;
- Moderate known range of species <50 kilometres from Study Area; >10 known populations in total; and
- Low known range of species >50 kilometres.

Clearing of vegetation associated with the Nyidinghu Project will directly impact two recorded Priority Flora. **Table 7-1** summarises the flora of conservation significance identified in the Study Area and the likely impact on these.

Calotis squamigera – P1

Calotis squamigera was recorded at one (1) quadrat, where only one individual was recorded, situated within an area of AaAsTp - Acacia aneura, Acacia aptaneura and Acacia pruinocarpa woodland to open woodland over Acacia synchronicia and Psydrax latifolia open shrubland over Triodia pungens hummock grasslands. This community occurs within the proposed waste dump area, and again north of the railway associated with flowlines.

Known populations of *Calotis squamigera* are located closer to the northwest coast of Western Australia between Karratha to Port Hedland. Populations of *Calotis squamigera* in the Study Area are considered regionally significant as they have not previously been recorded in the local area. The impact on *Calotis squamigera* is considered high.

The impact on *Calotis squamigera* on the local and regional populations of this species is potentially high. Further targeted surveys for *Calotis squamigera* within suitable areas of habitat within the Study Area would enable a more precise assessment to be made of the local and regional significance of Study impacts.

Goodenia nuda - P4

Goodenia nuda was recorded at five (5) quadrats, with only one individual recorded at two (2) of the five quadrats. Associated vegetation communities include Mulga on clay / clay loam plains (AaPsCf, AaAsTp, AaAtCc and AaEfTp. This indicates that *Goodenia nuda* is associated with grove-intergrove Mulga communities.

Vegetation clearance associated with the Nyidinghu Study is unlikely, based on available information, to impact on the following Priority Flora species which were identified in the Study Area:

- Goodenia nuda P4
- Eragrostis crateriformis P3
- Eremophila youngii subsp. lepidota P4
- Vigna sp. Central (M.E. Trudgen 1626) P2



Table 7-1 Details of flora of conservation significance recorded within the Study Area and impact significance

Species	Cons. Status	# of records within Study Area	# of records outside the Study Area	# of populations to be impacted	Impact	Comments
Calotis squamigera	P1	1	2	1	High	Regionally significant as there are no other known records from the vicinity of Study Area
Eragrostis crateriformis	P3	2	8	0	High	Regionally significant as there are no known populations in the vicinity of Study Area
Goodenia nuda	P4	3	24	2	Low	Recorded in close proximity to proposed infrastructure
Eremophila spongiocarpa	P1	2	18	0	Low	Occurs in northern corridor which has been excluded from Study Area. Potential impact from altered hydrological regime
Eremophila youngii subsp. lepidota	P4	8	27	0	Low	Occurs in northern corridor which has been excluded from Study Area. Potential impact from altered hydrological regime
Vigna sp. Central (M.E. Trudgen 1626)	P2	1	6	0	Low	Occurs in northern corridor which has been excluded from Study Area. Potential impact from altered hydrological regime

7.1.3 Priority Ecological Communities

One PEC was recorded in the Study Area and one PEC was recorded in close vicinity to the Study Area. The likely impact of vegetation clearance on the PEC is as follows.

Fortescue Marsh (Marsh Land System) Priority 1

There is unlikely to be any clearance of the Fortescue Marsh (Marsh Land System) Priority 3 PEC which extends into the very northern sector of the Study Area. The current proposal does not involve the establishment of any infrastructure or conduct of mining activities within the vicinity of Fortescue Marsh (Marsh Land System) PEC.

Fortescue Valley Sand Dune Priority 3

There is unlikely to be any direct impacts on the Fortescue Valley Sand Dune Priority 3 Ecological Community which is confined to the far western corner of the Study Area. Based on available details no mining infrastructure or activities are proposed within areas that support the Fortescue Valley Sand Dune PEC. Potential indirect impacts may affect this community e.g. dust, altered surface water flow, and erosion.

7.1.4 Communities of Conservation Interest

Grove-intergrove Mulga communities on the Marillana Plain were identified as having key environmental values for surface water management in the Fortescue Marsh. These communities on the Marillana Plain are sheet flow dependent vegetation communities, located north of the BHP Mt Newman rail. These vegetation units provide important ecological functions related to water and nutrient retention.

Alterations in surface water flow as a result of development may potentially impact these Mulga woodlands. It should be recognised that there is already a railway line dissecting the Nyidinghu Study Area. The existing railway is likely to have already adversely affected surface water flow between the Hamersley Ranges and the Fortescue Marsh therefore development to the south of the existing railway is unlikely to cause further impact to these communities.

7.2 Surface Hydrology Impacts

The Nyidinghu Study will require alterations to landforms and drainage patterns with the associated potential for impacts upon native flora and vegetation communities. Adverse impacts to native vegetation and flora associated with altered surface hydrology can be attributed to a number of factors, including the following.

- The diversion of stormwater runoff away from flora and vegetation associated with wetlands, drainage channels, and topographical depressions that rely on periodic surface water flows and/or ponding.
- 2. The concentration of surface flows resulting in erosion of drainage lines and loss of flora and damage to vegetation communities and/or deposition of sediment;
- 3. The ponding of water within drainage channels associated with the establishment of infrastructure crossings.
- 4. The release of groundwater into surface water systems with impacts associated with either increased flow volumes or periods and changes to water qualities (e.g. release of saline groundwater).

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Other impacts upon native flora species and vegetation communities of conservation significance associated with potential alterations to surface drainage and water flow patterns are likely to be minor at the regional scale. However localised interception of surface sheet flows associated with the construction of roads, rail and drainage infrastructure may impact the identified sheet flow dependent vegetation by intercepting surface water flow. **Table 7-2** provides a summary of the general nature of potential impacts to vegetation associated with alteration of surface flows.

Vegetation within the Study Area dependent on sheet flow includes the Mulga (*Acacia aneura*) communities. The EPA considers the Mulga vegetation located at the northern and southern flanks of the Fortescue Marsh to be the northern limit of Mulga in Western Australia (EPA 2011). Mulga is highly morphologically variable and appears to play an important role in water and nutrient capture, and is thus important to ecosystem function (ENV Australia 2010a). Potential impacts on these communities depend on the magnitude and extent of impacts and capacity to manage/mitigate impacts (e.g. engineering design).

It should be recognised that the existing BHP Mt Newman railway is likely to have already impacted on the surface water flow in Mulga communities on the southern flank of the Fortescue Marsh. Therefore, development occurring south of the existing railway is unlikely to cause further impacts.

Table 7-2 Potential impacts of altered surface water (adopted from Eco Logical 2010)

Impact on sheet flow	Location	Impact on sheet flow dependent vegetation	Timescale
Water ponding	Upslope of infrastructure	Excess water leading to change in SFDV Increased growth and recruitment with increased water Decreased growth and	Short to long-term (months to decades)
		recruitment with increased water Invasion of exotic and native plants (weeds) in altered environment	
Water starving	Down slope of infrastructure	Reduced water leading to decreased growth and recruitment	Long-term (years to decades)
Erosion	Down slope of infrastructure, below culverts	Concentrated flow leading to erosion	Short to medium-term (months to years) following large rainfall events
Deposition	Down slope of infrastructure, below culverts	Erosion and transport of sediment leading to deposition	Short to medium-term (months to years) following large rainfall events
Channel formation	Down slope of infrastructure, below culverts	Concentrated flow leading to erosion and channel formation	Short to medium-term (months to years) following large rainfall events

7.3 Groundwater Impacts

A central Pilbara groundwater study was completed by the Water and Rivers Commission (Johnson & Wright 2001). They recognised the following potential impacts from de-watering of mine pits:

 Potential to reduce discharge flux and volumes of water available for habitat for aquatic ecosystems in wetlands and base-flow systems

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- Lower watertable pressure
- Reduce or eliminate cave or aquifer ecosystems close to the mine
- Alter groundwater quality salinity, pH, chemical composition
- Acid rock drainage from exposed rock

7.3.1 Groundwater Drawdown Impacts

The Nyidinghu Study will require de-watering of the mine-pit(s) with the associated potential for draw-down of the local aquifer and associated impacts upon any groundwater dependent flora and vegetation communities occurring within the draw-down zone.

The Fortescue Marsh located to the north of the Study Area, and approximately 15 km from the proposed mine sites, is an area of particular concern to Fortescue regarding potential mine dewatering impacts. In recognition of the potential for mine de-watering activities at the Nyidinghu Study to have adverse impacts on the Fortescue Marsh, Fortescue propose the establishment of a groundwater injection bore-field. Within this groundwater injection bore-field, proposed to be located between mine pit(s) and the Fortescue Marsh, groundwater extracted from the mine pit(s) will be injected back into the groundwater aquifer to avoid (or minimise) any draw-down effects upon the Fortescue Marsh.

Based on the vegetation mapping presented in the main area of concern regarding the potential impact as a result of altered groundwater levels is Weeli Wolli Creek. De-watering of the mine pit(s) may potentially impact the *Eucalyptus victrix* woodland associated with Weeli Wolli Creek as their hydrological regime is altered. *Eucalyptus victrix* is known as a partial phraetophytic species therefore is partially reliant on groundwater however to what degree depends on local groundwater conditions.

Details concerning seasonal fluctuations in groundwater levels in the Study Area are not known and nor is the likely impact of mine de-watering on those levels, as such an accurate assessment of potential impacts is not possible. If the mine de-watering operations result in a localised draw-down of groundwater in the vicinity of Weeli Wollie Creek, that is in excess of natural fluctuations, then this has the potential to adversely impact on *Eucalyptus victrix* communities. Whilst such impacts are possible they would generally be of a localised nature.

Although groundwater abstraction will lower the local watertable, it has been observed that these usually recover to the original level over time (Johnson & Wright 2001).

7.3.2 Groundwater Injection Impacts

Injection of excess ground water may result in ground water mounding and potentially stressor kill vegetation communities due to water logging and/or salt accumulation in the vegetation root zone.

Potential impacts from re-injecting water include:

- localised mounding of groundwater;
- surface expression of groundwater;
- altered groundwater quality depending on quality of water injected; and
- erosion around infrastructure.

The potential impact of the groundwater injection operations will also need to consider any localised changes that could occur to the groundwater levels and qualities. Provided that the groundwater injection bore-field is managed in a manner that does not result in any substantial changes to seasonal groundwater levels, or the qualities of groundwater within the active root zone of groundwater dependent species then significant adverse impacts are not anticipated.

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Groundwater modelling is being undertaken by Fortescue to assess the likely impacts of the Nyidinghu Study on groundwater systems and to determine how groundwater resources may be managed to avoid or minimise any impacts upon the Fortescue Marsh and any other groundwater dependent flora species and vegetation communities within or adjacent to the Study Area.

There will be some risk during the conduct of mine de-watering activities that water piped from the mine site to the bore field injection area may be released to the surface as a result of a rupture or leak of the pipes. Impacts upon native vegetation from this source are likely to be infrequent and localised provided that appropriate monitoring is undertaken and corrective actions are implemented as required.

7.4 Introduced Species

The Nyidinghu Study will involve a range of activities that have the potential to result in the introduction of new weed species to the Study Area and/or the spread of existing weed species. Such activities include the operation of machinery, movement of surface soil, including alteration of drainage patterns. The introduction and/or spread of weed species will also continue to occur within the Study Area due to non-Nyidinghu Project related activities and processes, including dispersal via livestock, native fauna, wind and water.

The potential for environmental degradation due to occur as a result of the introduction or spread of invasive species can be mitigated through the implementation of an appropriately designed and resourced weed management plan as part of the Nyidinghu Study.

7.5 Fire

The Nyidinghu Study will involve a range of activities that have the potential to alter the existing fire regime of the Study Area, in terms of both the frequency and intensity of fire experienced. The operation and maintenance of machinery and the presence of a workforce are all factors that have the potential to result in an increase in potential fire ignition sources, with a resultant increase in fire frequency. The same factors also mean that any fire event is more likely to be suppressed due to the potential risk that the fire presents to property or human health, and arrangements are likely to be in place to exclude fire from certain sensitive areas.

Prediction of the likely impact on the Study Area's flora and vegetation communities associated with changes to the existing fire regime is complex and requires consideration of a number of factors. Relevant factors to consider are:

- the nature of the existing fire regime that characterises the Study Area and the extent to which that regime represents an "optimal" regime for a particular species of community type;
- the nature of the fire management regime that will be implemented as part of the Nyidinghu Project; and
- the duration of the Nyidinghu Project.

In respect of the above it is initially recognised that some form of active management of fire within the Study Area is likely to be undertaken at present by pastoralists.

To minimise the potential for undesirable changes to the structure and floristic composition of the vegetation of the Study Area a fire management/prevention plan should be developed and implemented. Such a plan should generally aim to:

eliminate (or actively suppress) uncontrolled fires originating from mining activities; and

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allow fire not triggered by mining activities to occur within those parts of the Study Area that
do not require protection due to the absence or infrastructure or lack of riskto human health
and safety.

7.6 Dust

Several flora species of conservation significance occur in close proximity to proposed infrastructure locations and are likely to be impacted by dust. The impact of dust on vegetation remains uncertain although a study into such impacts is currently being conducted (G. Turner masters study, pers comm.). Species of conservation significance that were identified as occurring in close proximity to proposed infrastructure include:

- Eragrostis crateriformis P3; and
- Goodenia nuda

 P3.

Dust related impacts are likely to be minor provided that appropriate dust suppression measures are implemented.

8 Conclusion

The Level 2 Flora and Vegetation survey undertaken for the Nyidinghu Study provides a comprehensive baseline flora and vegetation assessment of the ecological values of the Nyidinghu Study Area.

There were no Declared Rare Flora species or Threatened Ecological Communities recorded in the Nyidnghu Study Area. Six Priority flora species and one Priority Ecological Community were recorded in the Study Area. In addition, *Melaleuca xerophila* which was also recorded is considered of conservation significance as this species is at the edge of its current known range.

The following potential impacts associated with the implementation of the Nyidinghu Project were identified:

- Vegetation clearance activities
- Alterations to surface hydrology
- Alterations to groundwater hydrology
- Introduced species
- Alterations to natural fire regimes
- Dust.

The principal impact resulting from the implementation of the Nyidinghu Project is vegetation clearing. Patterns of vegetation clearing will not be uniform with the primary areas of vegetation clearing to be located in the south of the Study Area. The impact of vegetation clearing will therefore vary between vegetation communities and is dependent on the location of infrastructure associated with the Nyidinghu Project.

Two Priority Flora species will be directly impacted by the proposed Nyidinghu Project based on the current infrastructure locations. The impact on the Priority 1 species *Calotis squamigera* is considered high as there are very limited records of this species from this area of the Pilbara.

Altered surface and groundwater hydrology may impact native flora species and vegetation communities, particularly those associated with the Weeli Wolli Creek and Fortescue Marsh. Alterations in surface water flow as a result of development may potentially impact Mulga communities that are sheet flow dependent. It should be recognised that all the potentially sheet flow dependent communities occur north of the BHP Mt Newman rail. The existing railway is likely to have already adversely affected surface water flow between the Hamersley Ranges and the Fortescue Marsh therefore development south of the existing railway is unlikely to cause further impact to these communities.

Regional floristic analysis of the Nyidinghu vegetation showed that six of the twenty-two communities are poorly represented in the reference dataset and therefore are potentially considered of regional significance. It is difficult to determine whether these communities are in fact regionally significant or whether they are poorly represented in the reference dataset due to a lack of available data.

9 References

- Astron Environmental Services. 2010. West Pilbara Iron Ore Study Risk Assessment of Potential Railway Impacts on Sheet Flow Dependent Vegetation. Available at: http://www.google.com.au/url?sa=t&rct=j&q=sheet+flow+dependent+vegetation&source=web&cd= 2&ved=0CCsQFjAB&url=http%3A%2F%2Fwww.apijv.com.au%2Fgetfile.aspx%3FType%3Ddocu ment%26ID%3D1106%26ObjectType%3D3%26ObjectID%3D345&ei=n0YOT66dPKaZiQe1_fEv& usg=AFQjCNF8ZkPTwAaplAoAlRt6b9VZEunhCg. Accessed 21 December 2011.
- Australian Government. 2012. Connected Water Groundwater Dependent Ecosystems. Available: http://www.connectedwater.gov.au/framework/ground_dependent_ecosystems.html . Accessed 12 January 2012.
- Beard, J.S. 1975. *Vegetation Survey of Western Australia: Pilbara*. 1:1000000 Vegetation Series Explanatory Notes to Sheet 5.
- Biota Environmental Services. 2004. Vegetation and Flora Survey of the Proposed FMG Stage A Rail Corridor. Unpublished report for Fortescue Metals Group.
- Bureau of Meteorology. 2011. *Climate Data Online*. Available at http://www.bom.gov.au, accessed 29 April 2011.
- C Muller Consulting Pty Ltd. 2005. Water Flow in Mulga Areas Adjoining Fortescue Marsh.
- Cammeraat, L. H. and Imeson, A. C. 1999. *The Evolution and Significance of Soil-Vegetation Patterns Following Land Abandonment and Fire in Spain, Catena*, **37**(1–2), 107–127
- Chinnock, R.J. 2007. *Eremophila and Allied Genera: A Monograph of the Myoporaceae*. Rosenberg Publishing Pty Ltd
- Delaney, J. 2012. *Review of Regional Floristic Analysis for the Nyidinghu Project*. Prepared for Fortescue Metals Group 2 April 2012.
- Department of Agriculture and Food WA. 2006. *Pre-European Vegetation* Western Australia (NVIS Compliant Version 20110503).
- Department of Environment and Conservation. 2007. *CAR Reserve Analysis 2007*. Supplied by the Department of Environment and Conservation.
- Department of Environment and Conservation. 2010. *Definitions, Categories and Criteria for Threatened and Priority Ecological Communities*. Available: http://www.dec.wa.gov.au/content/view/849/2017/. Accessed 28 April 2011.
- Department of Environment and Conservation. 2011a. Listing of Species and Ecological Communities: Conservation Codes for Western Australian Flora and Fauna. Available: www.dec.wa.gov.au/content/view/852/2010/1/1. Accessed 3 May 2011.
- Department of Environment and Conservation. 2011c. WA's Threatened Ecological Communities. Available: http://www.dec.wa.gov.au/content/view/849/2017/. Accessed 9 August 2011.
- Department of Environment and Conservation.2011b. *Native Vegetation Map Viewer*. Available: http://maps.dec.wa.gov.au/idelve/nv/index.jsp. Accessed 4 September 2011.
- Department of Minerals and Petroleum. 1998. Conservation Reserves and Other Environmentally Sensitive Lands in Western Australia. Available: http://www.dmp.wa.gov.au/documents/mou1_rev2(1).pdf. Accessed 6 September 2011.
- Department of Sustainability, Environment, Water, Population and Communities. 2009. *Weeds of National Significance*. http://www.weeds.gov.au/weeds/lists/wons.html. Accessed 1 September 2011.
- Department of Water, Department of Environment and Conservation, and the Office of the Environmental Protection Authority. 2011. *Guidance for Environmental and Water Assessments Relating to Mining Operations in the Fortescue Marsh Area*. Draft Report.
- Eco Logical Australia 2010. Oakajee Mid-west Rail Vegetation Monitoring Program. Prepared for Oakajee Port and Rail.



- ENV. Australia 2010a. Christmas Creek Flora and Vegetation Assessment. Unpublished report for FMG I td
- ENV. Australia. 2010b. Cloudbreak Flora and Vegetation Assessment. Unpublished report for FMG Ltd.
- Environment Australia (2001). A Directory of Important Wetlands in Australia, 3rd Edition, 2001. Available: http://www.deh.gov.au/water/wetlands/database/directory/index.html. Accessed 15 November 2011
- Environmental Protection Authority. 2000. *Environmental Protection of Native Vegetation in Western Australia. Position Statement No.* 2.Environmental Protection Authority.
- Environmental Protection Authority. 2004. *Guidance for the Assessment of Environmental Factors:*Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia. Guidance Statement 51. Western Australia.
- Environmental Protection Authority. 2010. *Marillana Iron Ore Study:* Report and Recommendations of the Environmental Protection Authority. *Report 1376 December 2010*. Environmental Protection Authority, Perth, Western Australia.
- Environmental Protection Authority. 2011. *Christmas Creek Water Management Scheme*. Report and recommendations of the Environmental Protection Authority, report 1402.
- Executive Steering Committee for Australian Vegetation Information. 2003. *Australian Vegetation Attribute Manual: National Vegetation Information System*, Version 6.0. Department of the Environment and Heritage, Canberra.
- Fortescue Metals Group. 2011. *Flora and Vegetation Assessment Guidelines* (100-GU-EN-0005). Unpublished report from Fortescue Metals Group.
- Global Compendium of Weeds. 2007. Setaria verticillata (Poaceae) Available from: http://www.hear.org/gcw/species/setaria verticillata/
- Gregg Barrett & Associates Pty Ltd. 2005. *Likely impact of drawdown of groundwater from the cloud break operations on vegetation communities*. Unpublished report for Fortescue Metals Group.
- Griffin, E.A. and Trudgen, M.E. 2012. *Numerical analysis of floristic data from the Fortescue Metals Group Nyidinghu Project and Nyidinghu Rail areas with comparisons to data from the surrounding Pilbara Bioregion of Western Australia*. Prepared for Cardno (WA) Pty Ltd.
- Kendirck, P. 2001. *Pilbara 2 (PIL2 Fortescue Plains subregion)*. In: A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002.
- Kent, M., and Coker, P. 1992. *Vegetation Description and Analysis: A Practical Approach*. CRC Press Inc. Florida.
- Maslin, I., B. Roger. 2001. Wattle: Acacias of Australia. Computer Software.
- Mattiske 2005. Flora and Vegetation on the Cloudbreak and White Knight Leases. Unpublished report for FMG Pty Ltd.
- Mattiske 2007. Flora and Vegetation Near Fortescue Marshes. Unpublished report for FMG Pty Ltd.
- McCune, B. and M. J. Mefford. 2006. PC-ORD. *Multivariate Analysis of Ecological Data*. Version 5.31.MjM Software, Gleneden Beach, Oregon, U.S.A.
- McCune, B., and Grace, J.B. 2002. *Analysis of Ecological Communities*. MjM Software Design, Gleneden Beach, Oregon.
- Northcote, K.H. with Beckmann, G.G., Bettenay, E., Churchward, H.M., Van Dijk, D.C., Dimmock, G.M., Hubble, G.D., Isbell, R.F., McArthur, W.M., Murtha, G.G., Nicolls K.D., Paton, T.R., Thompson, C.H., Webb, A.A. and Wright, M.J. (1960-1968). *Atlas of Australian Soils*, Sheets 1 to 10. With explanatory data (CSIRO Aust. and Melbourne University Press: Melbourne).
- Palmer, J. 2009. A Conspectus of the Genus Amaranthus L. (Amaranthaceae) in Australia. Nuytsia 19(1) 107-128
- Sharp, D.And B.K. Simon. 2002. *AusGrass: Grasses of Australia*. Computer Software published by Australian Biological Resources Study, Canberra and Environmental Protection Agency, Brisbane.



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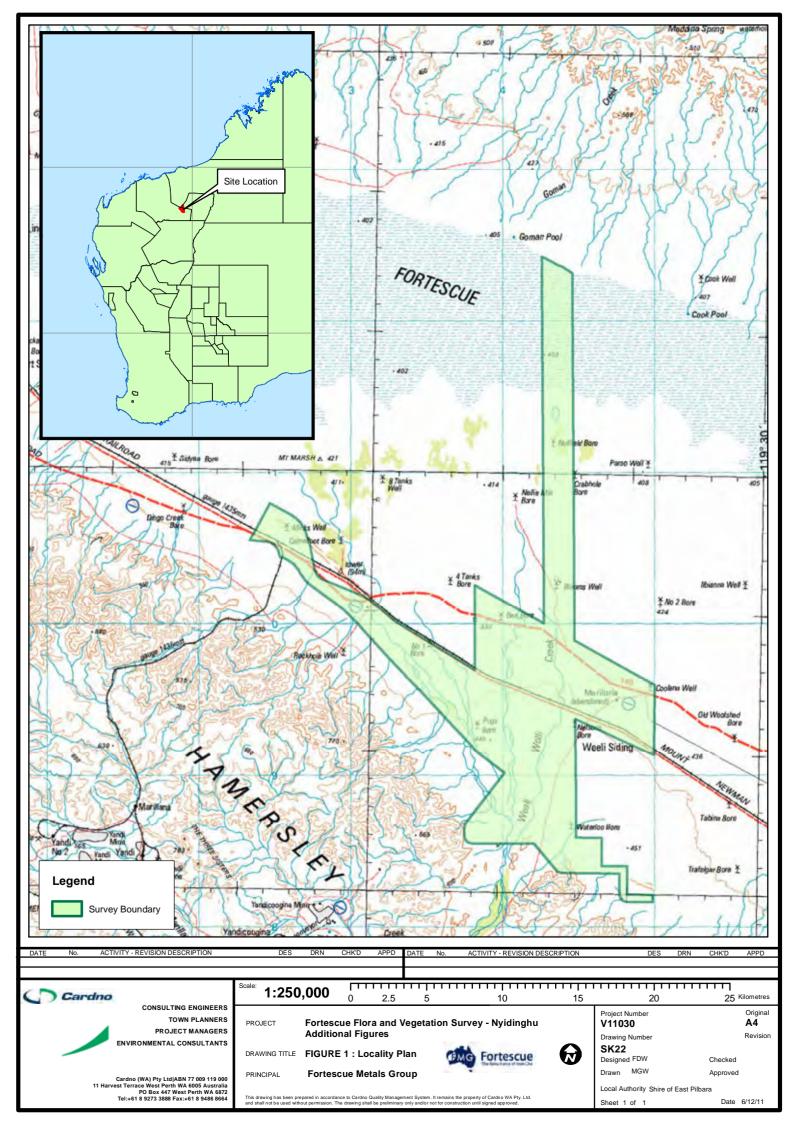
- Shepherd, D.P. 2003. *Implementation of the National Vegetation System model in Western Australia. Milestone 6 Report.* Final report on the implementation of the National Vegetation System model in Western Australia. Unpublished Report to the Bureau of Rural Sciences, Canberra. October 2003.
- Tachway, R and I.D. Cresswell. 1995. *An Interim Biogeographical Regionalisation for Australia: A Framework for Establishing the National System of Reserves*. Version 4.0, Australian Nature Conservation Agency, Canberra.
- Thorp, J.R. and Wilson, M. 1998-. Weeds Australia www.weeds.org.au
- Trudgen, M.E. 1991. *Vegetation Condition Scale*. In: National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA). Wildflower Society of Western Australia (Inc.) and the Tree Society(Inc.), Perth, Western Australia.
- Van Vreeswyk, A.M.E., A.L. Payne, K.A. Leighton and P. Hennig. 2004. *An Inventory and Condition Survey of the Pilbara Region, Western Australia*. Technical Bulletin 92.Department of Agriculture.
- Johnson, S.L and Wright, A.H. 2001. *Central Pilbara Groundwater Study, Water and Rivers Commission, Hydrogeological Record Series*, Report HG8, 102 p.
- Western Australian State Herbarium.1998—. Flora Base—the Western Australian Flora. Department of Environment and Conservation. http://florabase.dec.wa.gov.au/

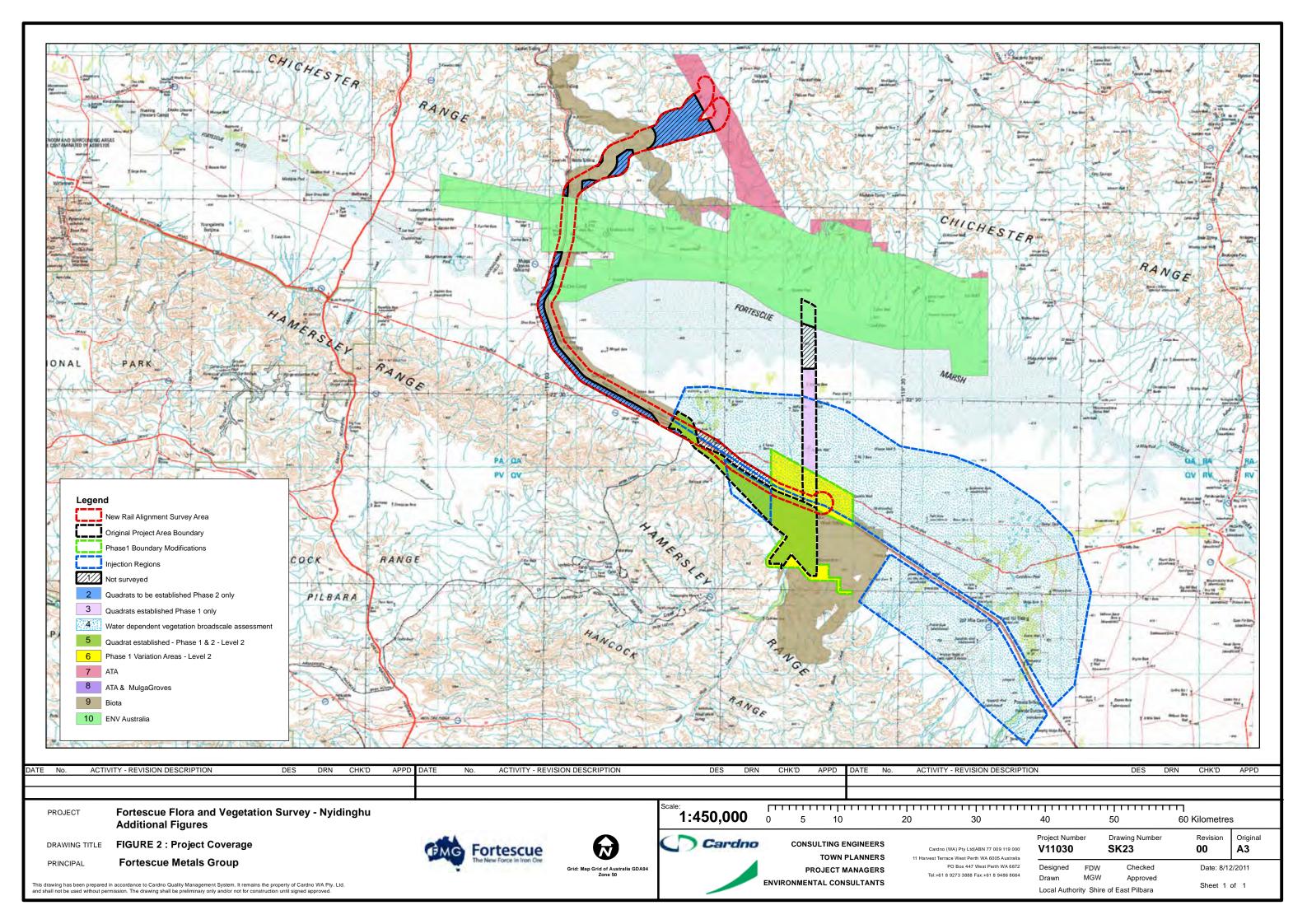


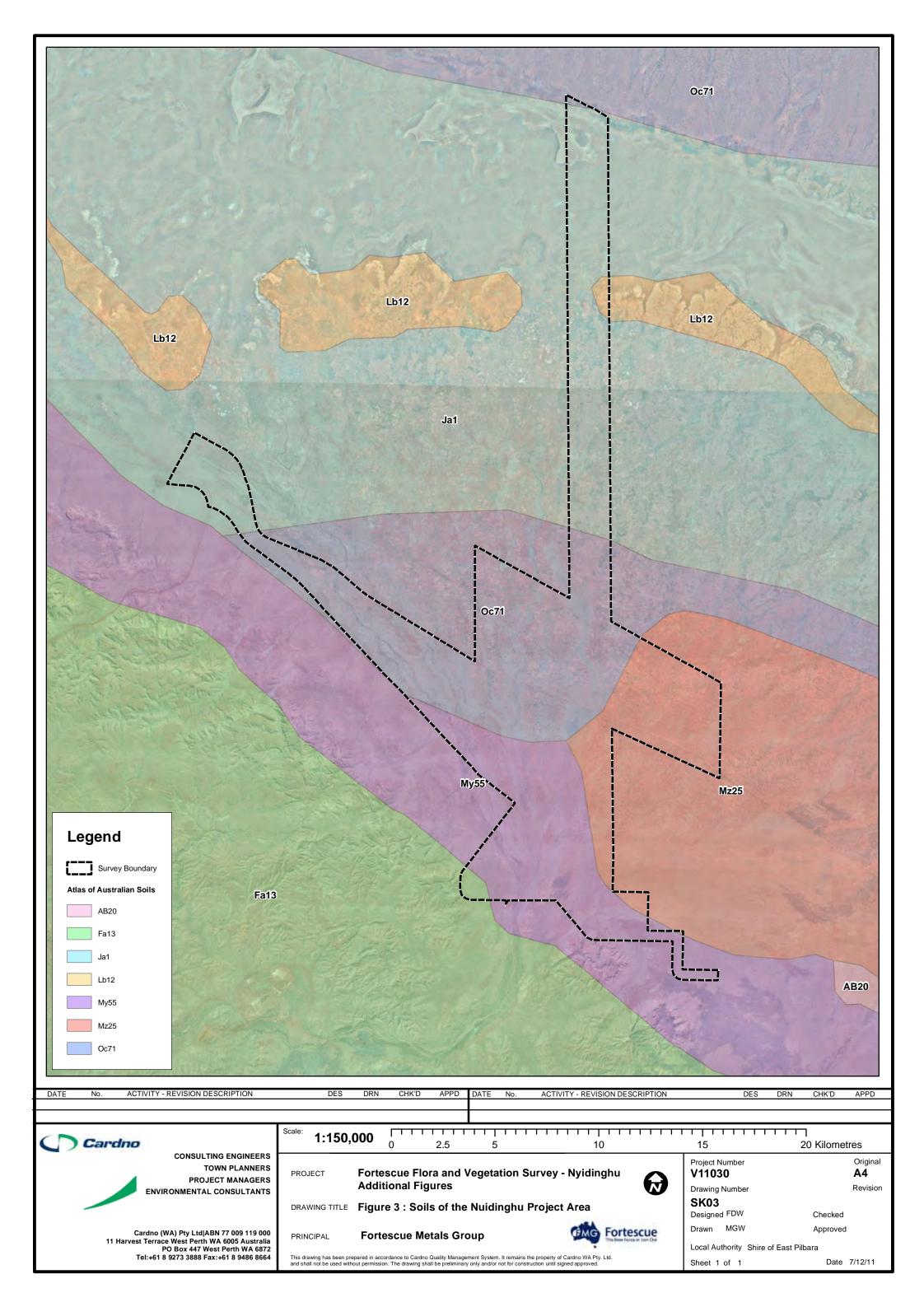
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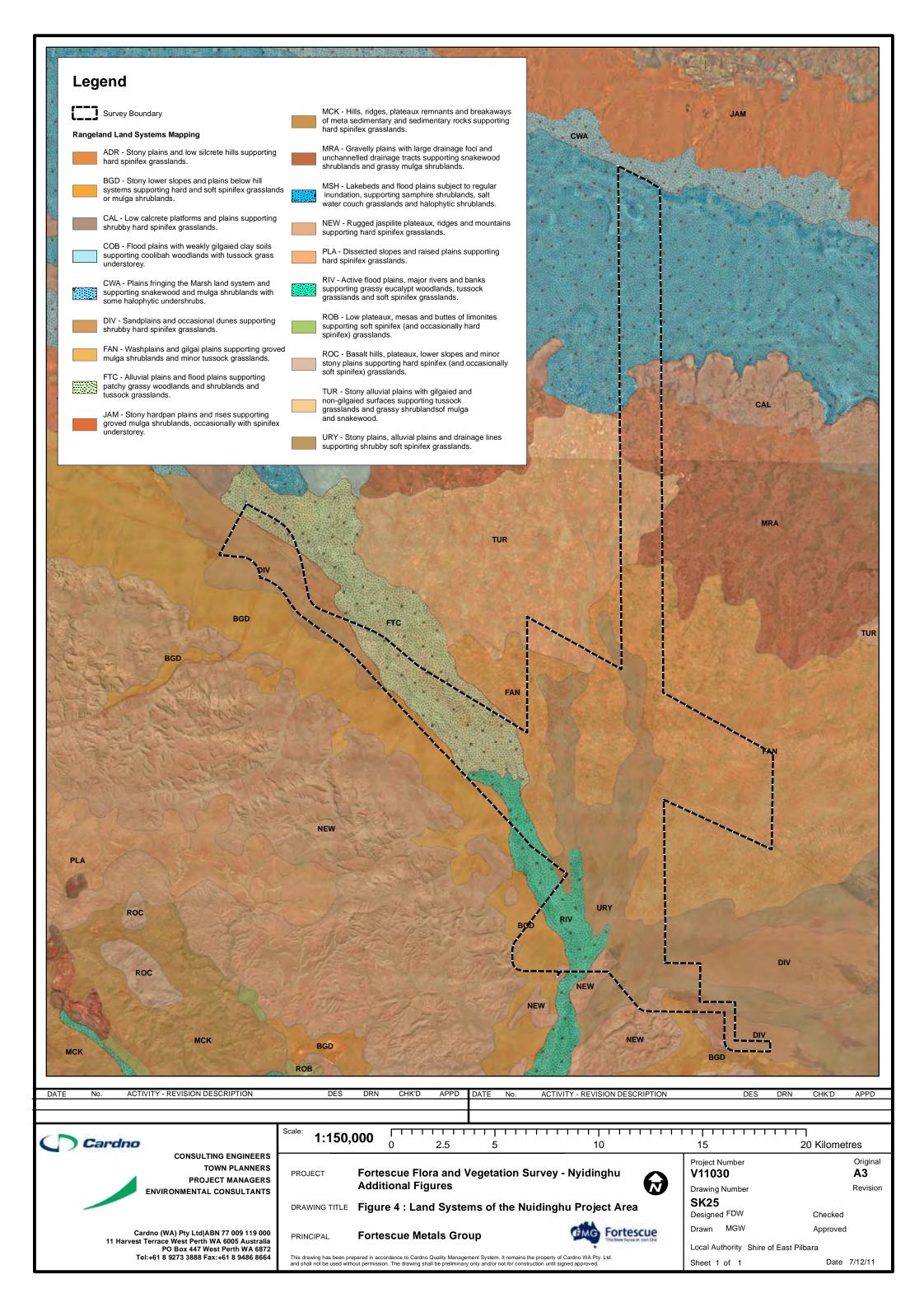
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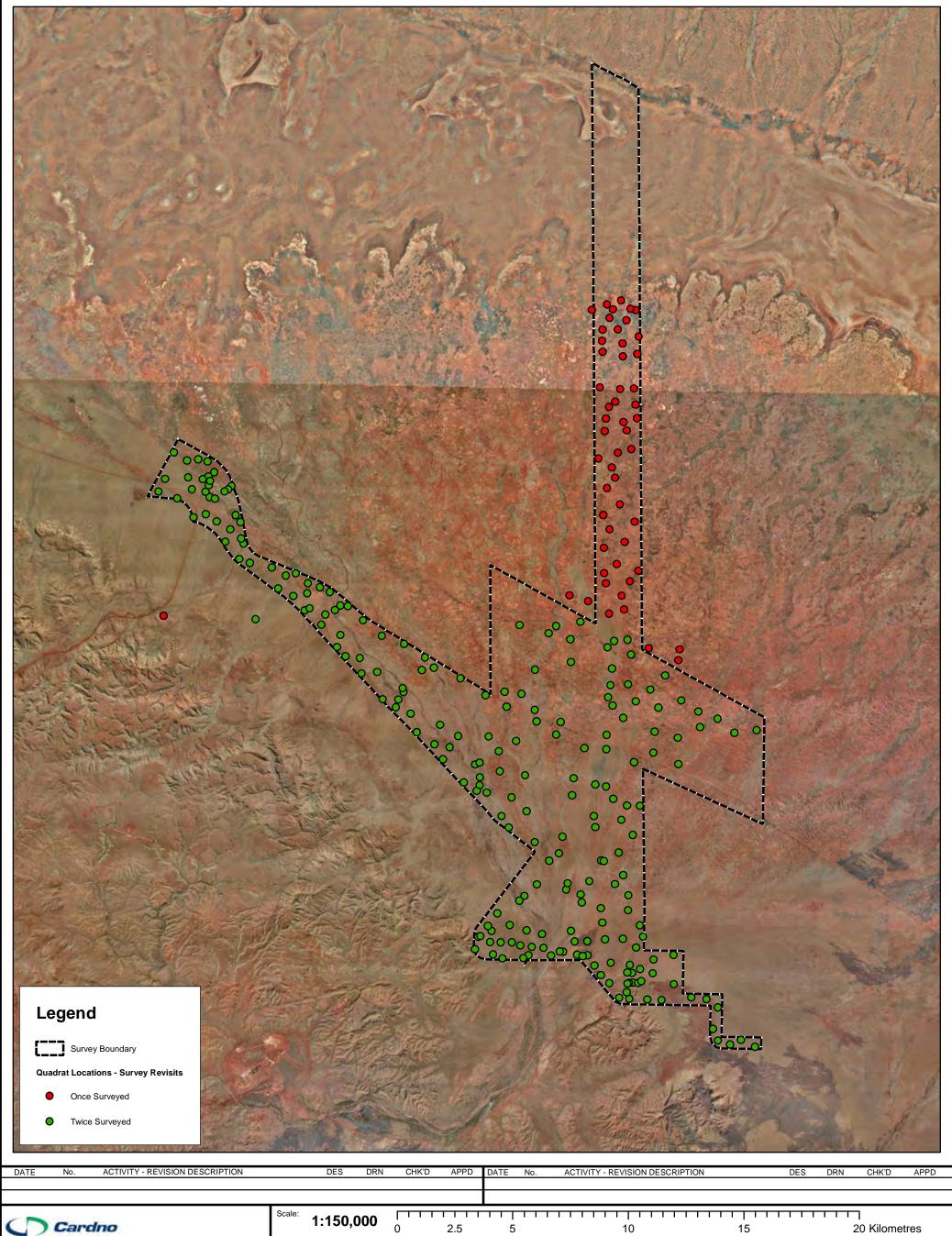
- 1. Locality Map
- 2. Study Coverage
- 3. Soils Underlying the Nyidinghu Study Area
- 4. Land Systems Underlying the Nyidinghu Study Area
- 5. Fortescue Marsh Management Zones
- 6. Quadrat Locations currently figure
- 7. Aerial Photograph Quality for Bore-field Injection Area
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- 17. Sheetflow Dependent Vegetation: Grove/Intergrove Mulga Communities
- 18. Condition Mapping
- 19. Bore-field Injection Mapping













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PROJECT

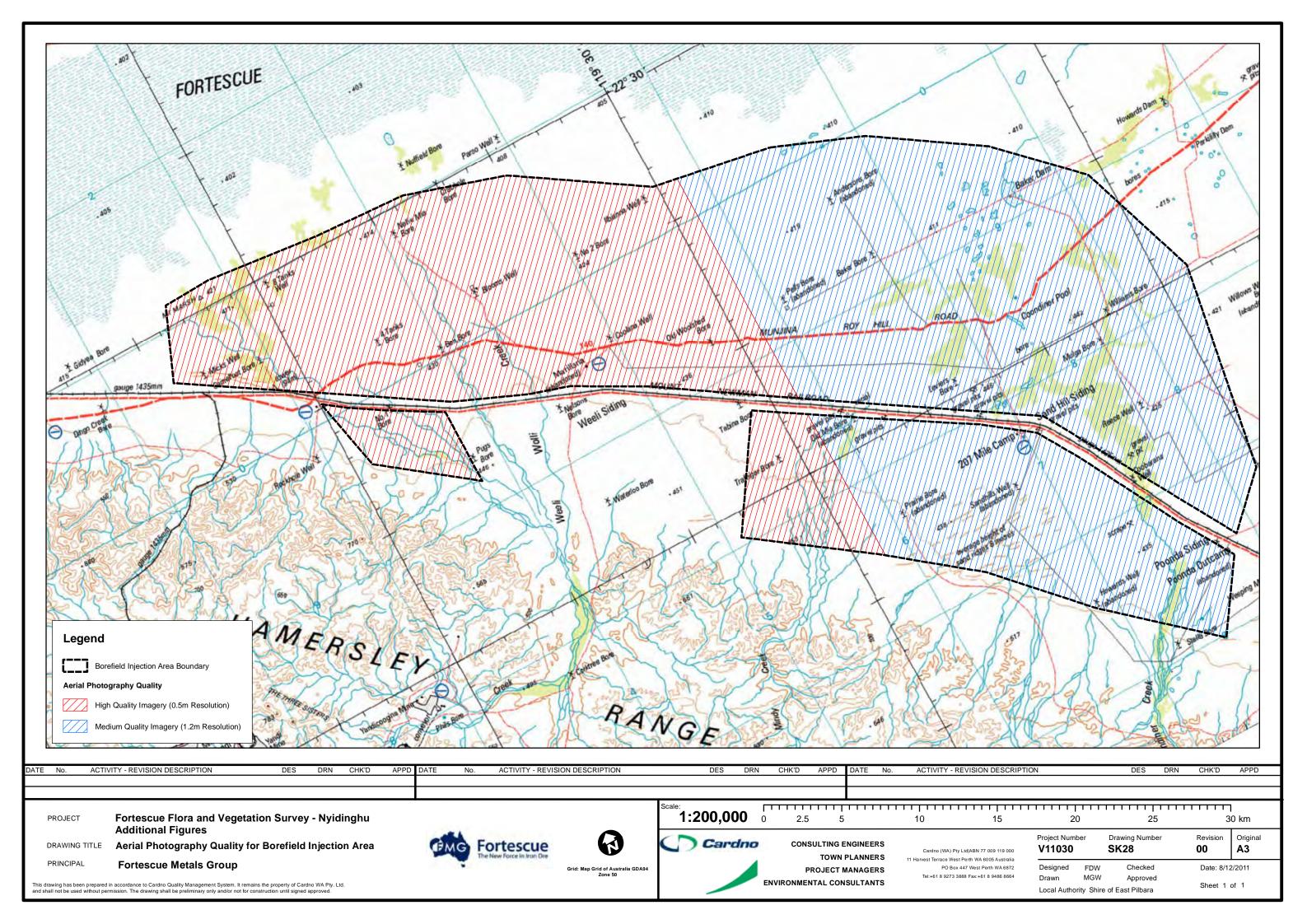
Fortescue Flora and Vegetation Survey - Nyidinghu Additional Figures

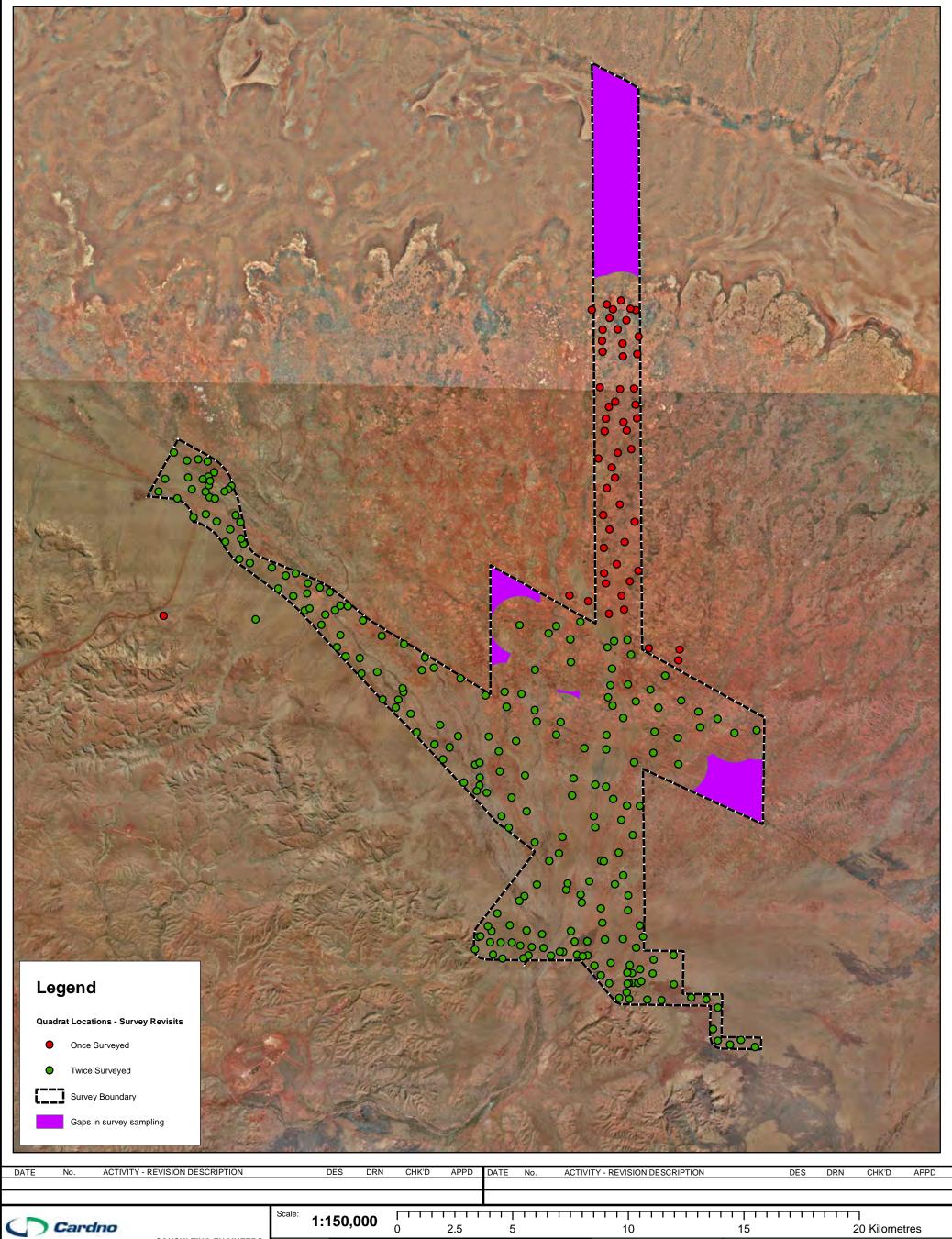
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DRAWING TITLE Figure 6 : Quadrat Locations

PRINCIPAL **Fortescue Metals Group** FMG Fortescue

15	20 Kilometres		
Project Number V11030	Origin A4	al	
Drawing Number	Revisi	on	
SK27			
Designed FDW	Checked		
Drawn MGW	Approved		
Local Authority Shire of East	Pilbara		
Sheet 1 of 1	Date 7/12/11		







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DRAWING TITLE Figure 8 : Gaps in Survey Sampling

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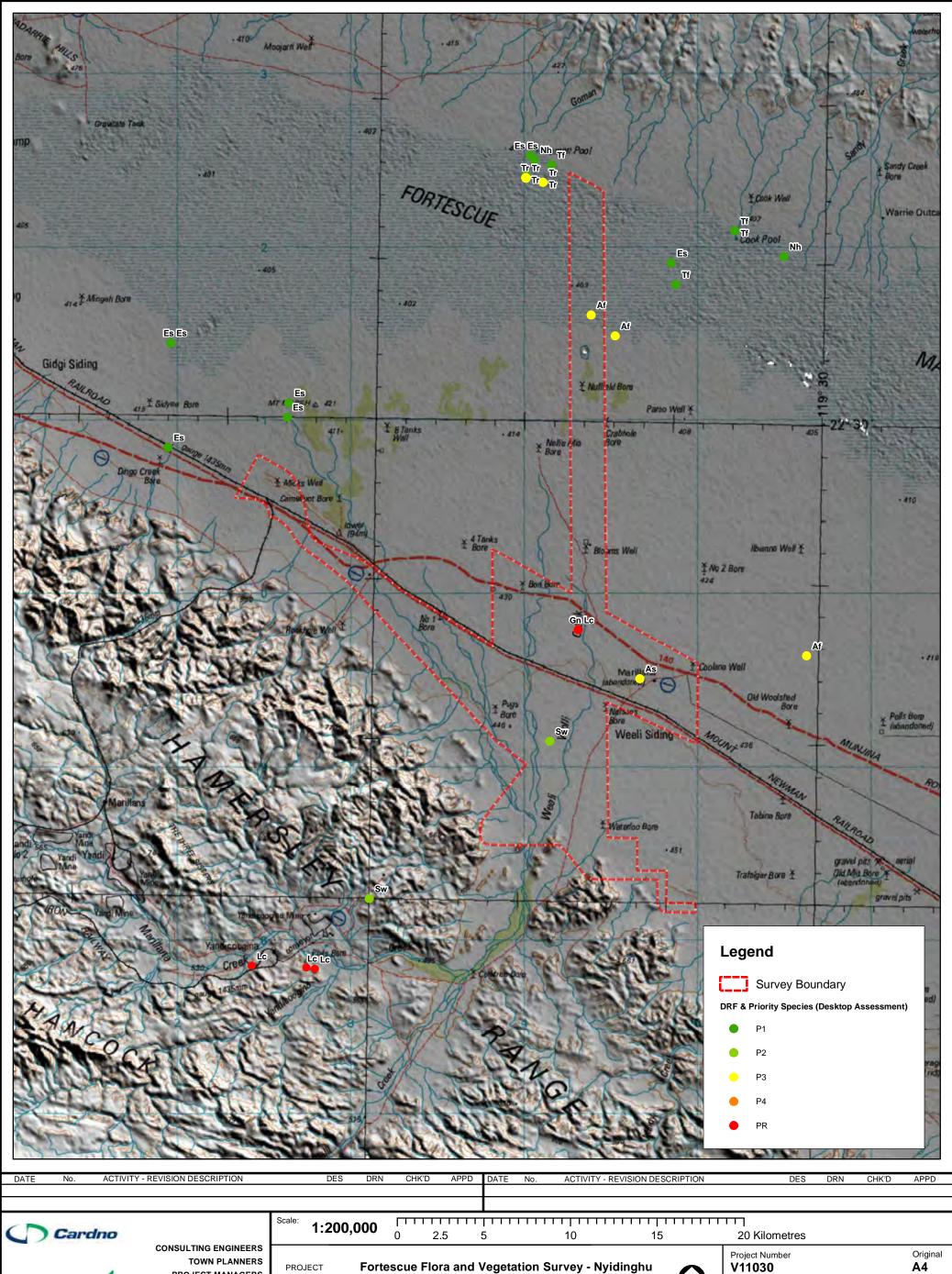
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FMG Fortescue

Project Number Original V11030 Α4 Revision **Drawing Number SK29** Designed FDW Checked Drawn MGW Approved

Local Authority Shire of East Pilbara Sheet 1 of 1

Date 7/12/11





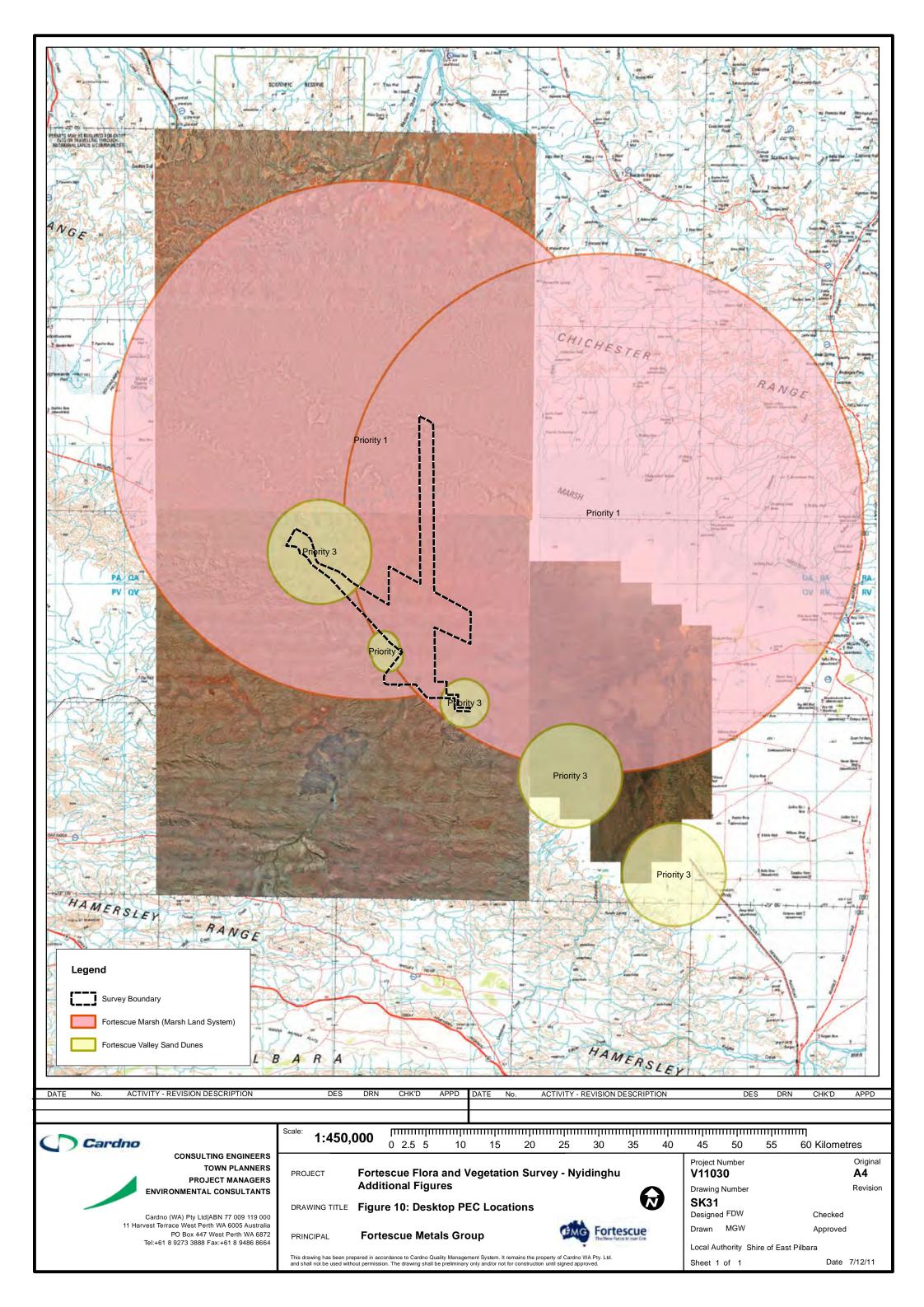
Fortescue Flora and Vegetation Survey - Nyidinghu **Additional Figures**

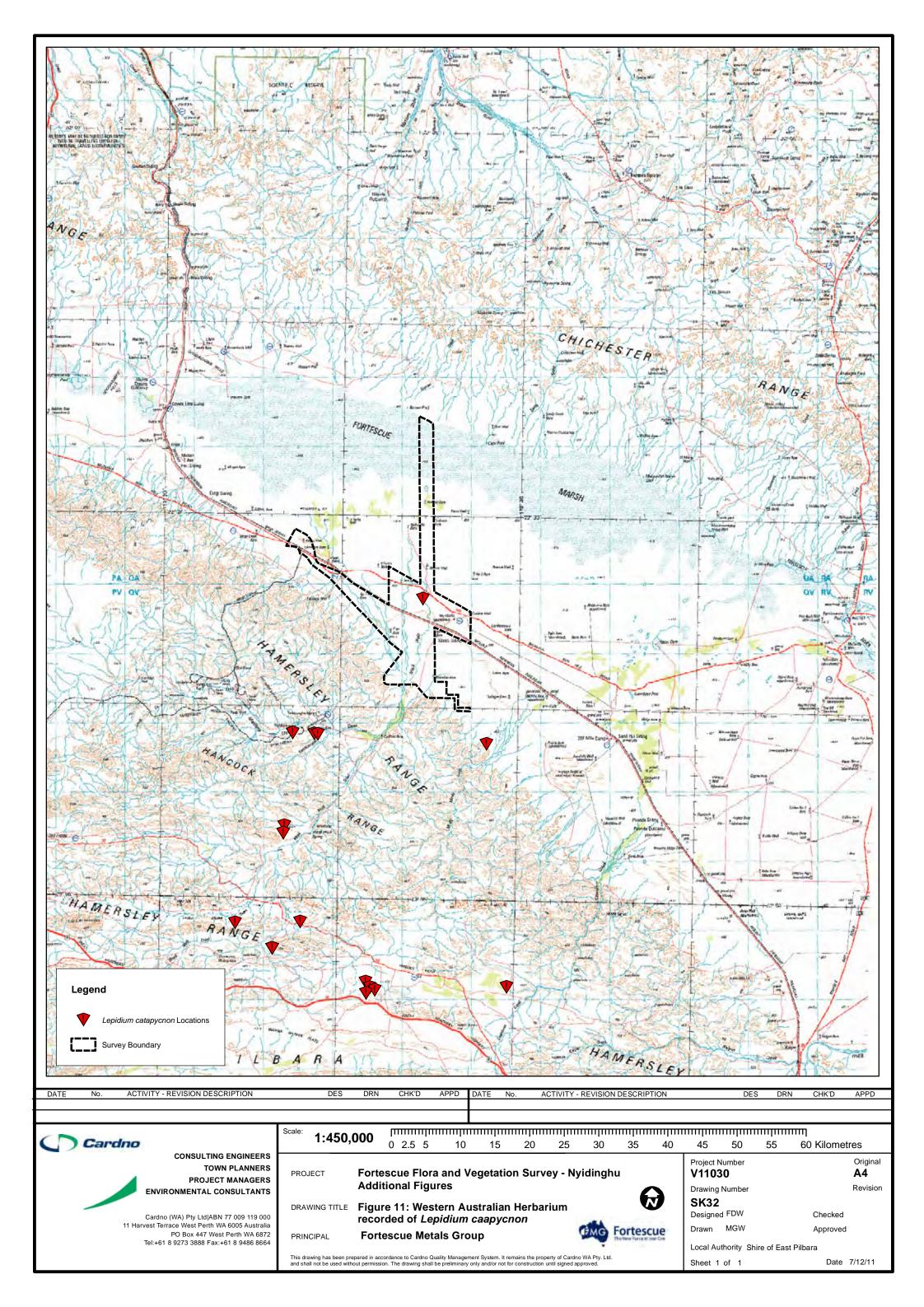
DRAWING TITLE FIGURE 9 : Desktop DRF Locations

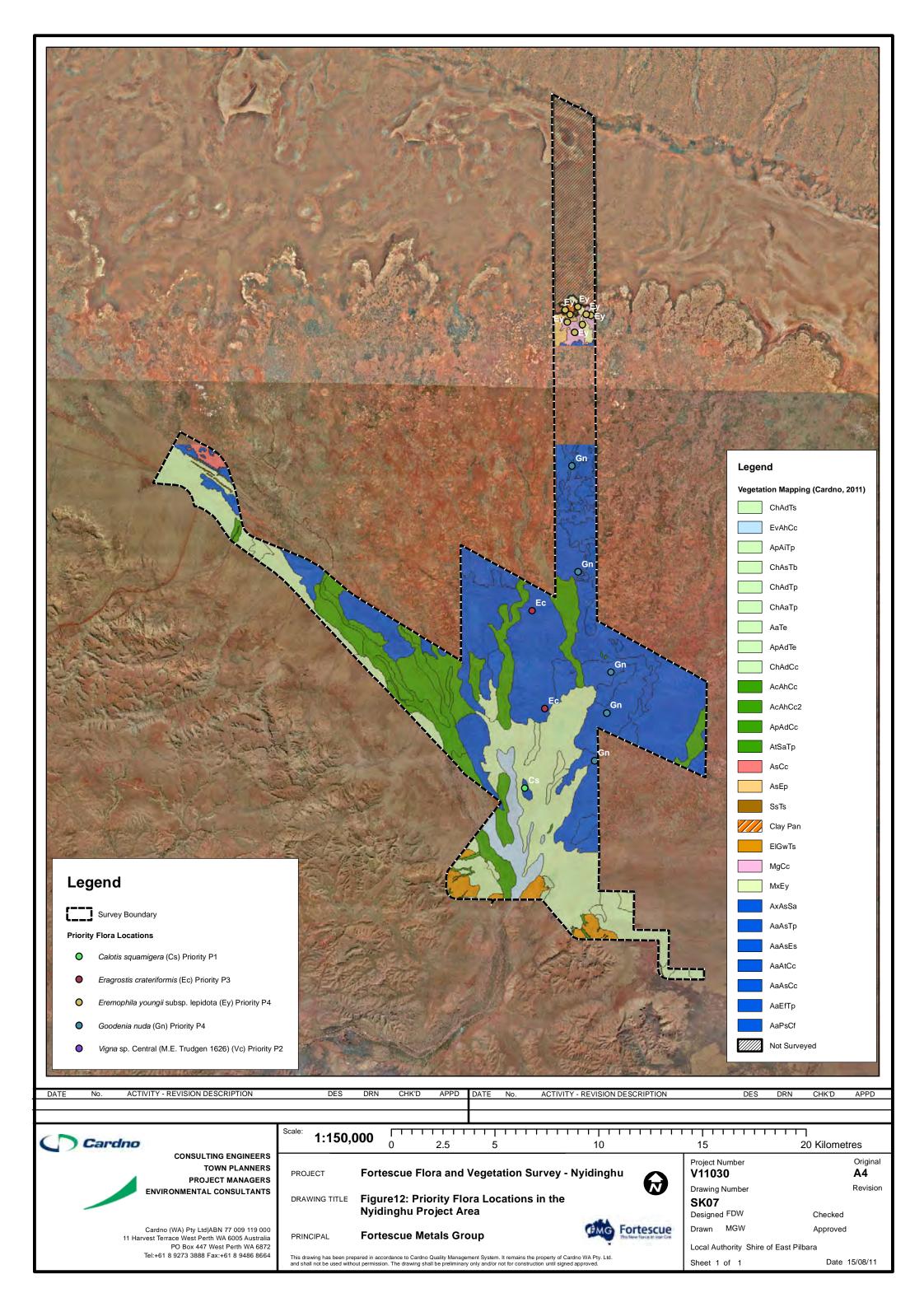
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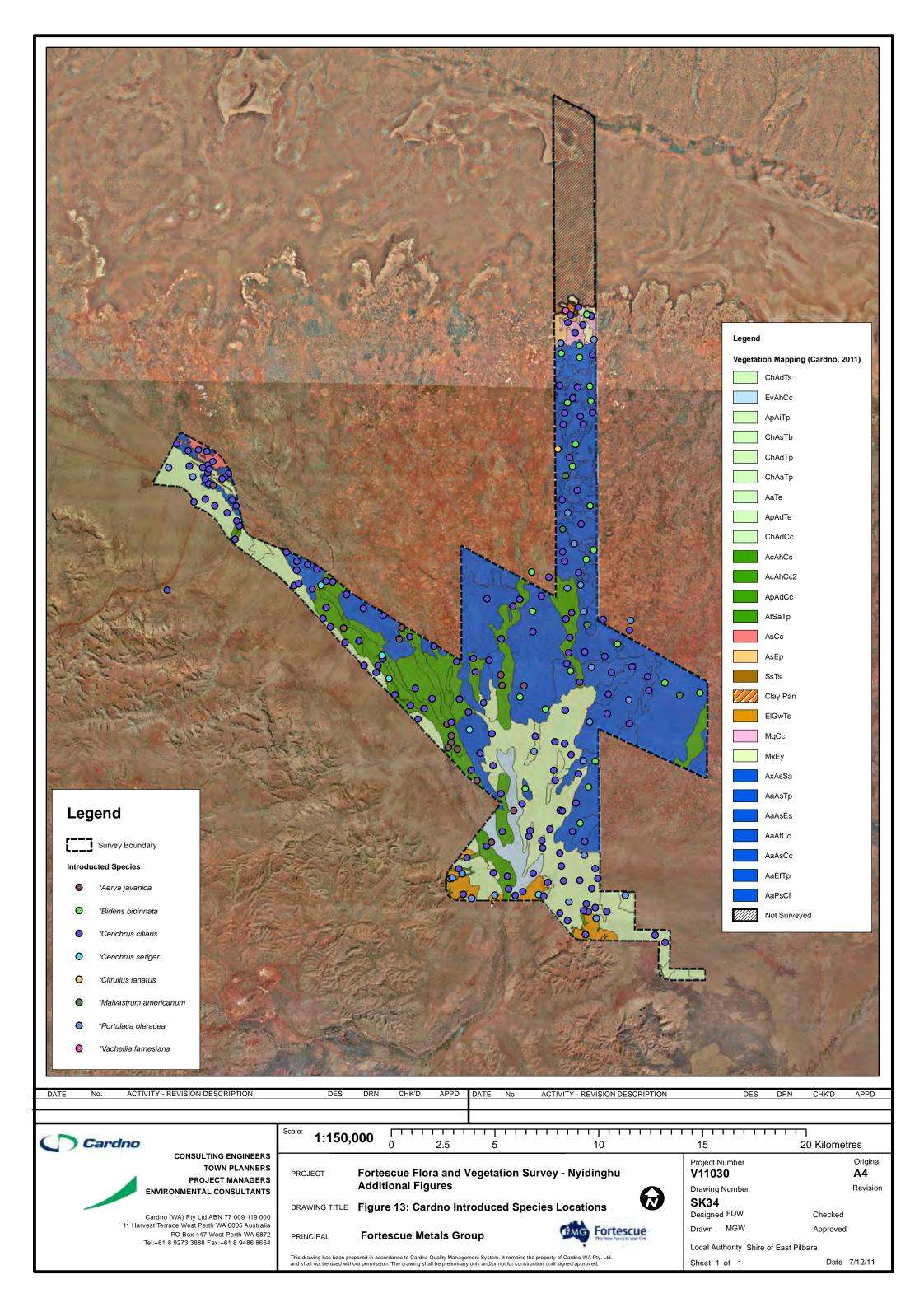
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	SK30		
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	Drawn MGW	Approved	
	Local Authority Shire of East P	ilbara	
	Sheet 1 of 1	Date	7/12/11











CoAdTs

CoAsTb

Triodia hummock grassland

Hummock Grasslands on Sand Plains

ApAiTp

Triodia hummock grassland

Acacia pruinocarpa and Acacia citrinoviridis low open woodland over Acacia inaequilatera, Eremophila longifolia and Acacia ancistrocarpa mid to tall shrubland over Triodia pungens low hummock grassland

Corymbia opaca and Eucalyptus gamophylla low isolated trees over

Acacia dictyophleba, Hakea chordophylla and Acacia ancistrocarpa tall sparse shrubland over Triodia schinzii, Triodia basedowii and Triodia pungens low hummock grassland

Triodia hummock grassland

Corymbia opaca, Eucalyptus gamophylla and Acacia inaequilatera low open woodland over Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba and Acacia inaequilatera tall sparse shrubland over Triodia basedowii low

hummock grassland

CoAaTp Triodia hummock grassland Corymbia opaca, Acacia inaequilatera and Eucalyptus gamophylla low

open woodland over *Acacia ancistrocarpa, Petalostylis labicheoides* and *Grevillea wickhamii* subsp. *hispidula* tall shrubland over *Triodia pungens*

low hummock grassland

CoAdTp Triodia hummock grassland Corymbia opaca and Acacia inaequilatera low to mid open woodland over

Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba and Acacia pachyacra tall sparse shrubland over *Triodia pungens* low

hummock grassland



Mulga on Clay/ Clay Loam Plains

AaAsCc	Acacia woodland	Acacia aneura and Acacia pruinocarpa low woodland over Acacia synchronicia tall shrubland over *Cenchrus ciliaris and *Cenchrus setiger low tussock grassland
AaAsEs	Acacia open woodland	Acacia aneura low to mid open woodland over Acacia synchronicia tall shrubland to open shrubland over Eragrostis setifolia low sparse grassland
AaAsTp	<i>Acacia</i> woodland	Acacia aneura, Acacia aptaneura and Acacia pruinocarpa low woodland to open woodland over Acacia synchronicia and Psydrax latifolia tall open shrubland over Triodia pungens low hummock grassland
AaAtCc	Acacia open woodland	Acacia aneura and occassional Eucalyptus victrix low to mid open woodland over Acacia tetragonophylla, *Vachelllia farnesiana and Acacia synchronicia mid to tall open shrubland over *Cenchrus ciliaris mid tussock grassland
AaEfTp	Acacia woodland	Acacia aneura, Acacia pruinocarpa and Acacia aptaneura low woodland over Eremophila forrestii, Acacia ancistrocarpa and Acacia tetragonophylla tall open

shrubland over *Triodia pungens* low hummock grassland

Acacia aneura woodland over Psydrax latifolia, Acacia tetragonophylla and Acacia synchronicia open shrubland over Chrysopogon fallax and *Cenchrus

ciliaris low to mid open open tussock grassland



AaPsCf

Fortescue Valley Sand Dunes

SsTs Triodia hummock grassland Stylobasium spathulatum and Acacia dictyophleba sparse shrubland over

Triodia schinzii and Triodia basedowii open hummock grassland



Acacia woodland





Minor Creeklines and Floodplains

AcAhCc Acacia open woodland Acacia citrinoviridis and Acacia pruinocarpa low open woodland over Atalaya hemiglauca and Hakea lorea subsp. lorea tall isolated shrubland over *Cenchrus

ciliaris mid tussock grassland

ApAdCc Acacia open woodland Acacia pruinocarpa, Corymbia hamersleyana and Acacia citrinoviridis low to mid open woodland over Acacia dictyophleba, Hakea lorea subsp. lorea and Acacia synchronicia tall sparse shrubland over *Cenchrus ciliaris and *Cenchrus setiger

mid tussock grassland

AtSaTp Acacia open mallee woodland Acacia tumida var. pilbarensis, Grevillea wickhamii subsp. hispidula and Gossypium robinsonii low open mallee shrubland over Senna artemisioides subsp. oligophylla and Acacia adoxa var. adoxa sparse heath shrubland over Triodia pungens low hummock grassland



Major Creeklines

EvAhCc Eucalyptus open woodland Eucalyptus victrix, Acacia citrinoviridis and Acacia pruinocarpa mid open woodland over Atalaya hemiglauca and Hakea lorea subsp. lorea tall isolated shrubland over *Cenchrus ciliaris and *Cenchrus setiger mid tussock grassland



Hummock Grasslands on Rocky Hills

EIGwTs Triodia hummock grassland

Eucalyptus leucophloia subsp. leucophloia low open woodland over Grevillea wickhamii subsp. hispidula and Acacia bivenosa tall sparse shrubland over Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) and Triodia epactia low hummock grassland

Cracking Clay

Chenopod open shrubland

Acacia synchronicia mid sparse shrubland over Atriplex amnicola, Maireana pyramidata and shrubland Rhagodia eremaea mid Chenopod open shrubland

AsCc

AsEp

Acacia open shrubland

Acacia sclerosperma subsp. sclerosperma, Acacia xiphophylla and Acacia synchronicia tall open shrubland over Enneapogon polyphyllus low open grassland

Melaleuca shrubland

Melaleuca xerophila, Acacia synchronicia and Eremophila youngii subsp. lepidota mid to tall shrubland over Atriplex amnicola mid to tall Chenopod shrubland

MxEy

Melaleuca open shrubland

Melaleuca glomerata, Acacia tetragonophylla and Eremophila youngii subsp. lepidota tall shrubland over *Cenchrus ciliaris mid tussock grassland

MgCc



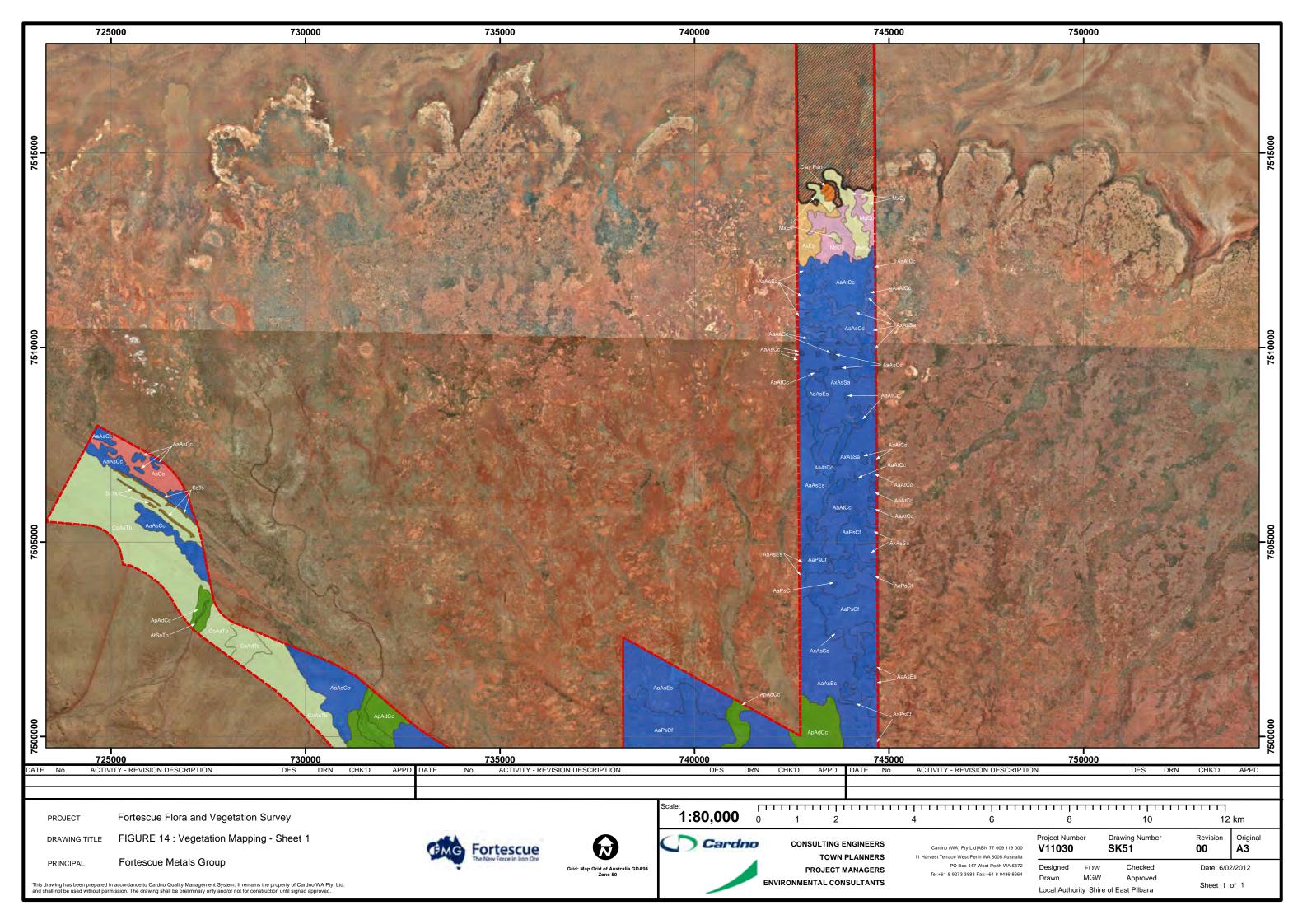
AxAsSa

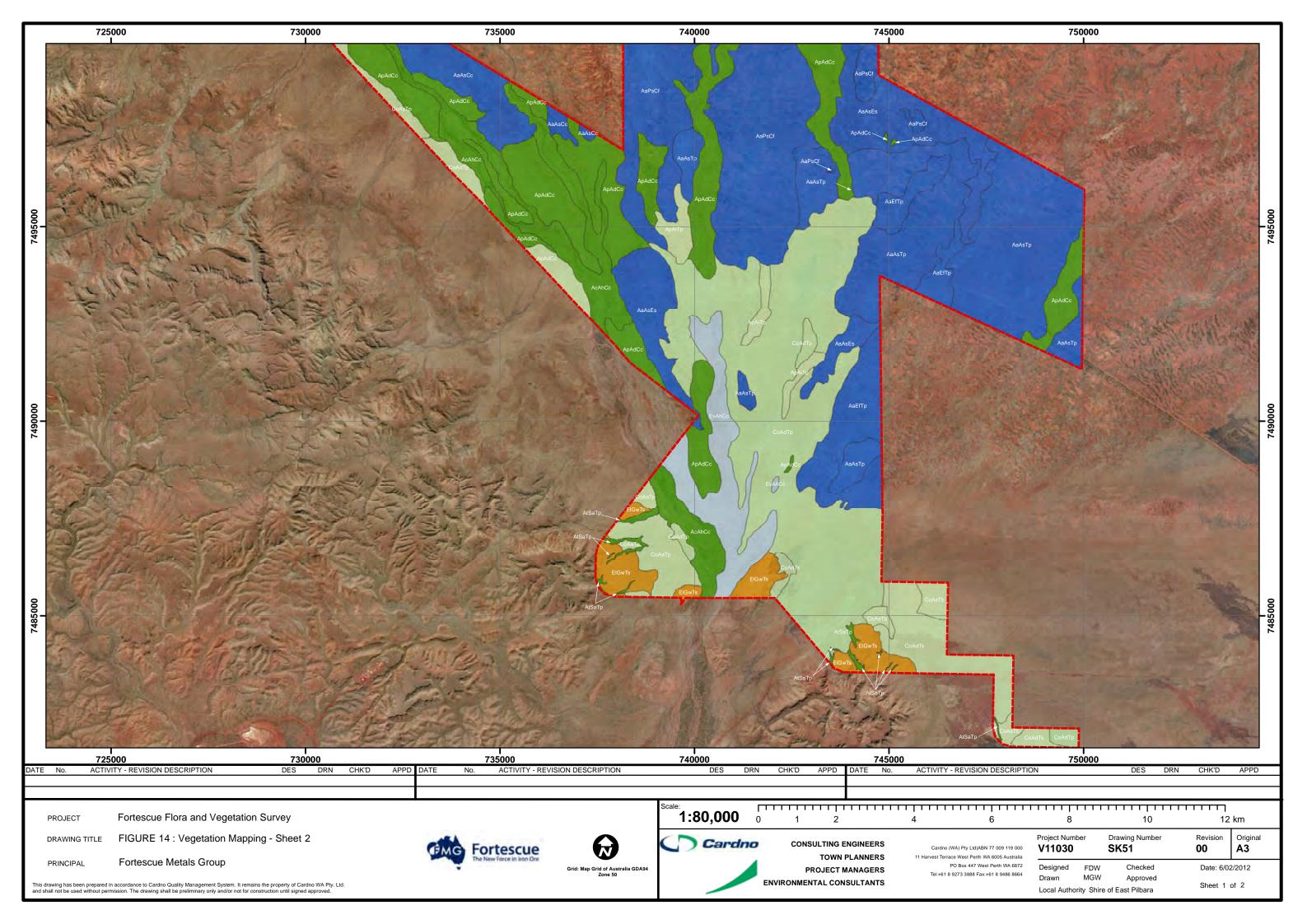
Chenopod sparse shrubland

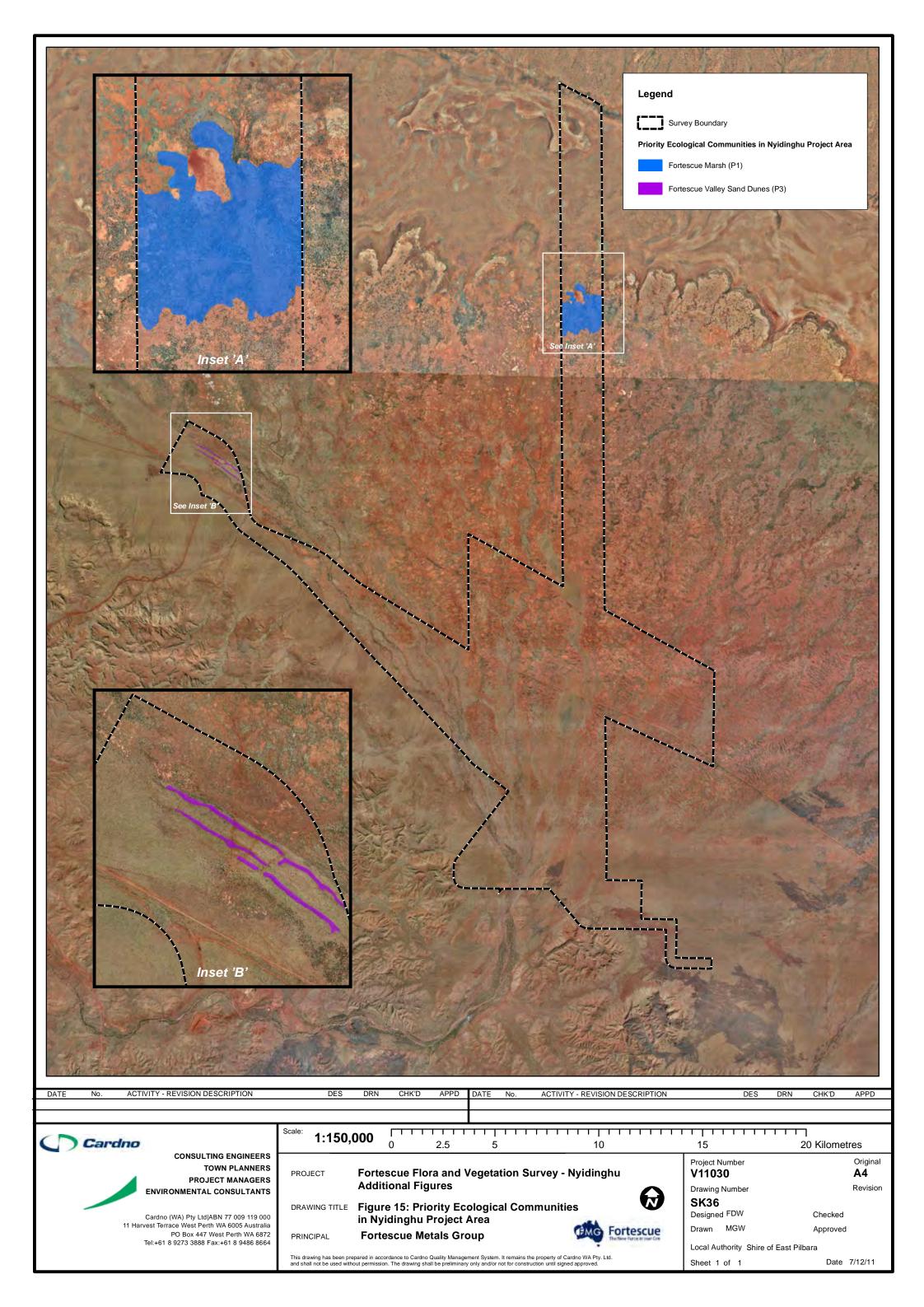
Acacia xiphophylla and Acacia aneura low isolated trees over Acacia synchronicia and Acacia tetragonophylla mid to tall sparse shrubland over Salsola australis Maireana pyramidata and Sclerolaena cuneata low sparse chenopod shrubland

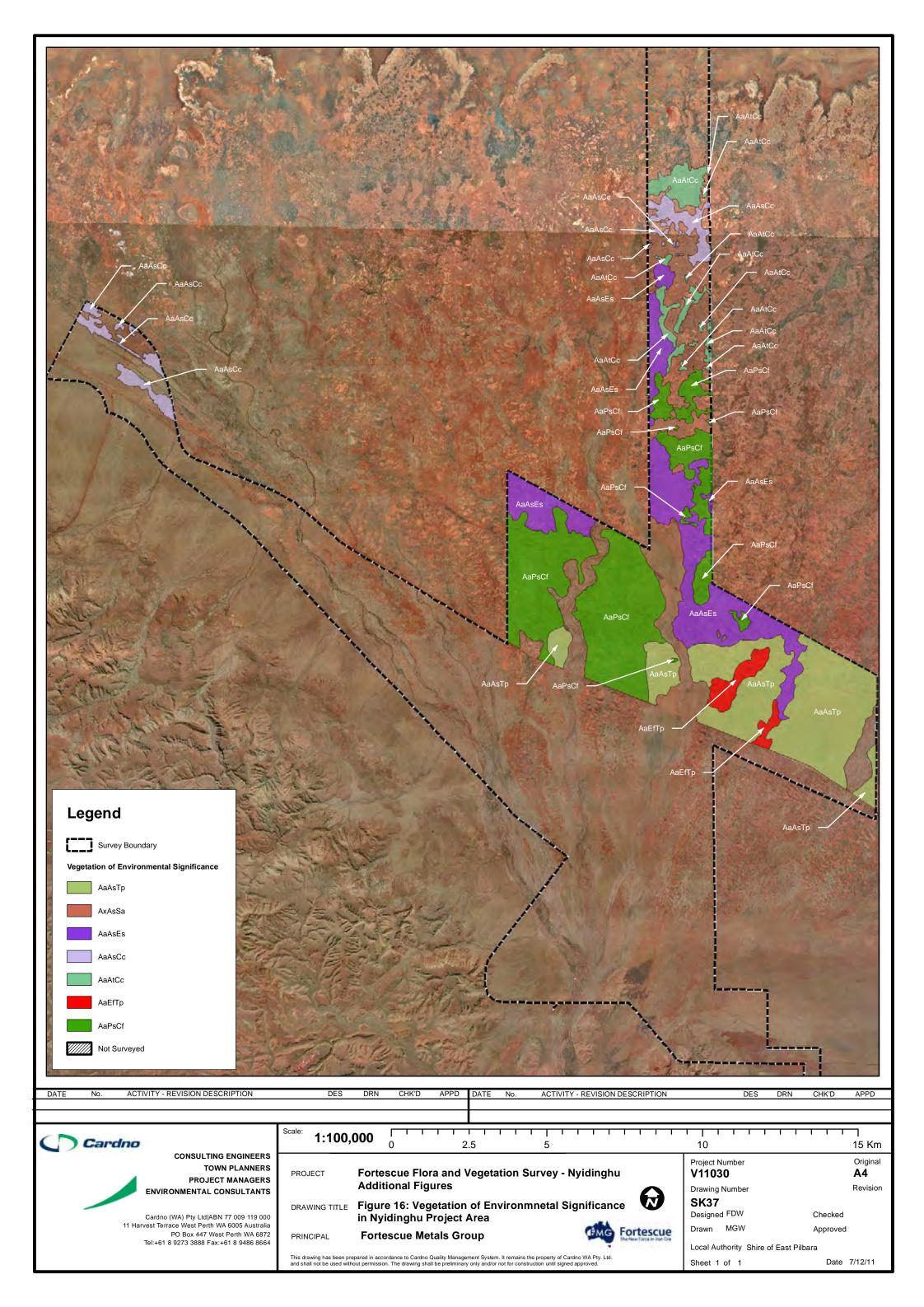


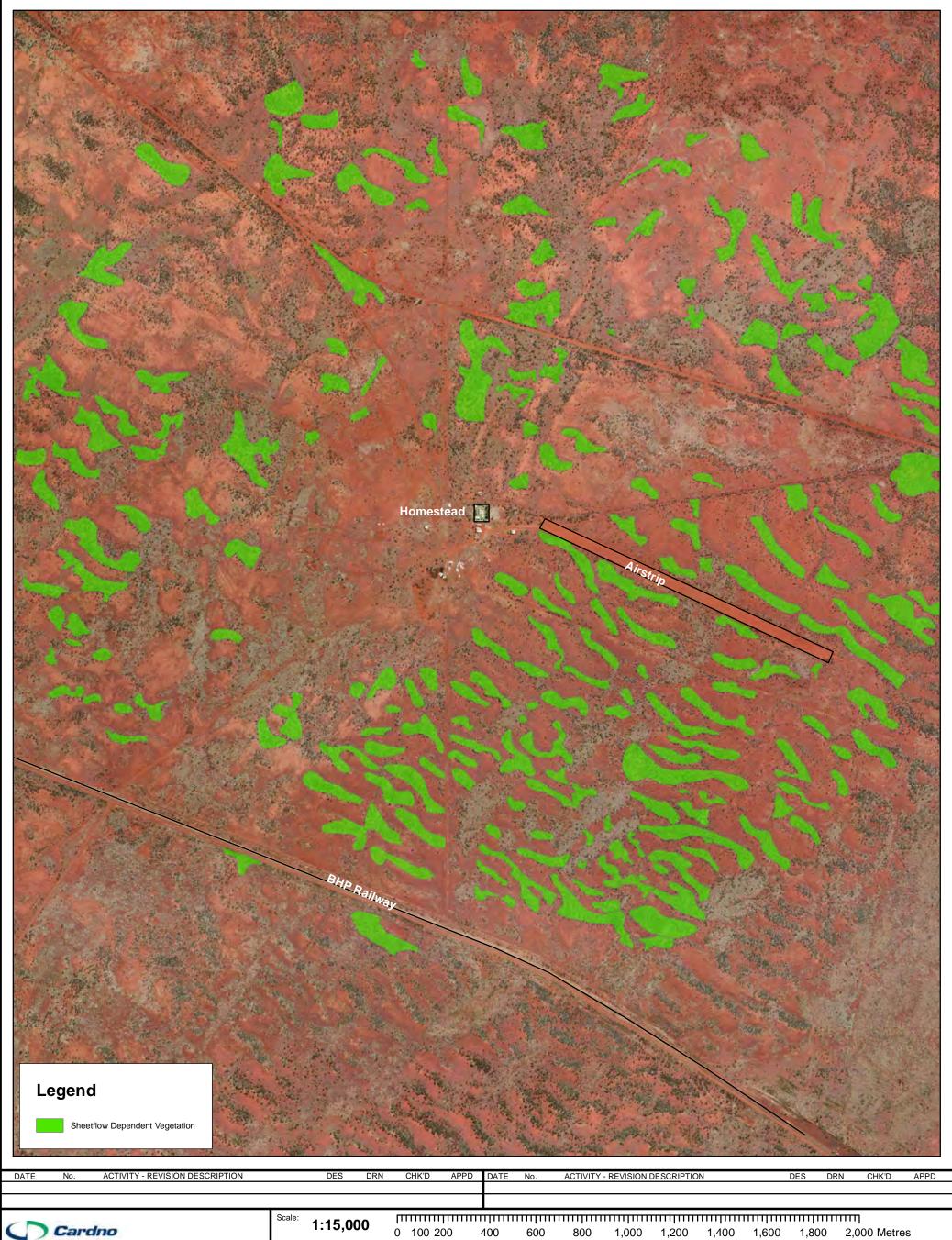












CONSULTING ENGINEERS
TOWN PLANNERS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS

0 100 200 400 600 800 1,000 1,200 1,400 1,600

FOR Fortescue Flora and Vegetation Survey - Nyidinghu Additional Figures

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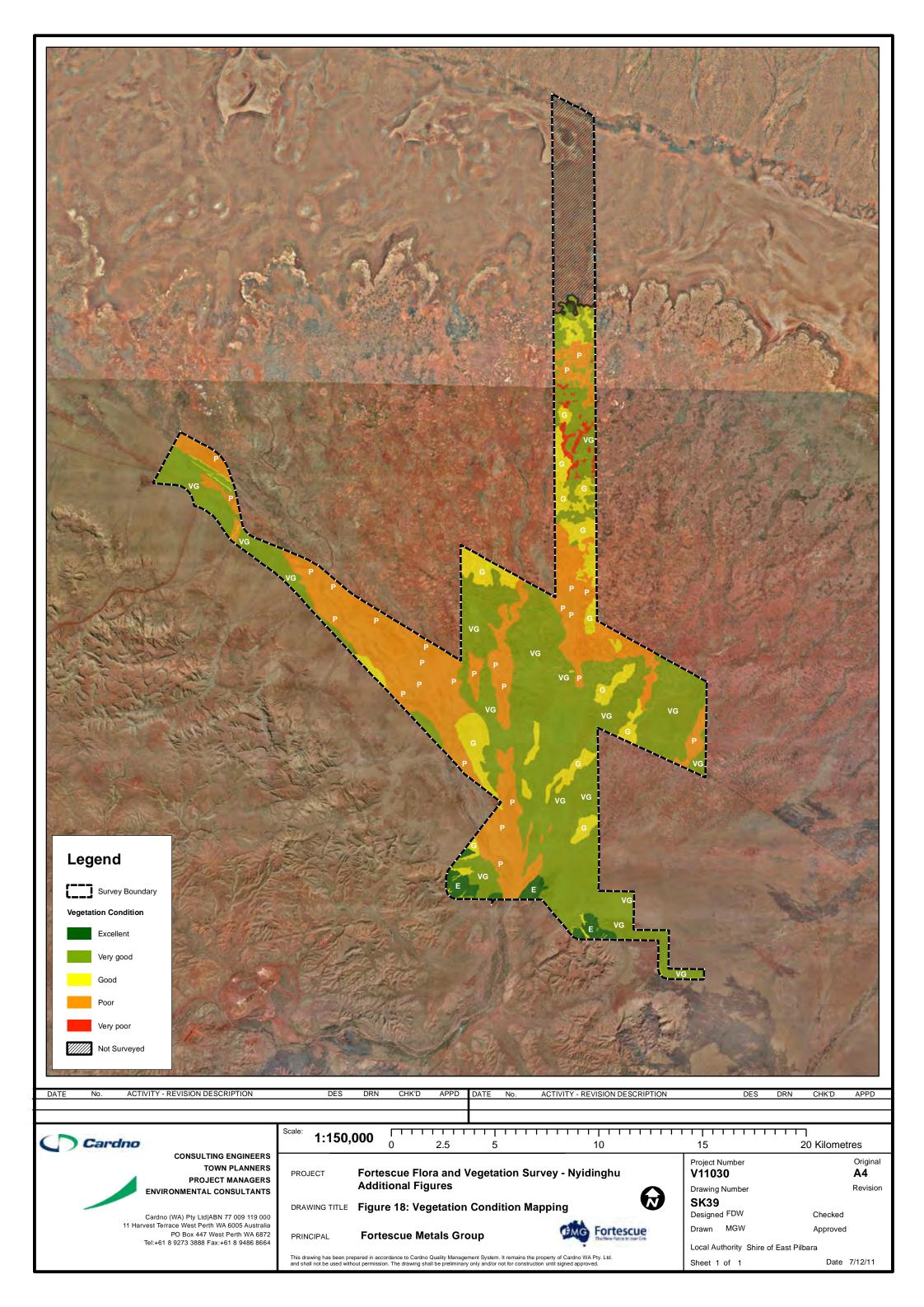
DRAWING TITLE Figure 17: Sheetflow Dependent Vegetation

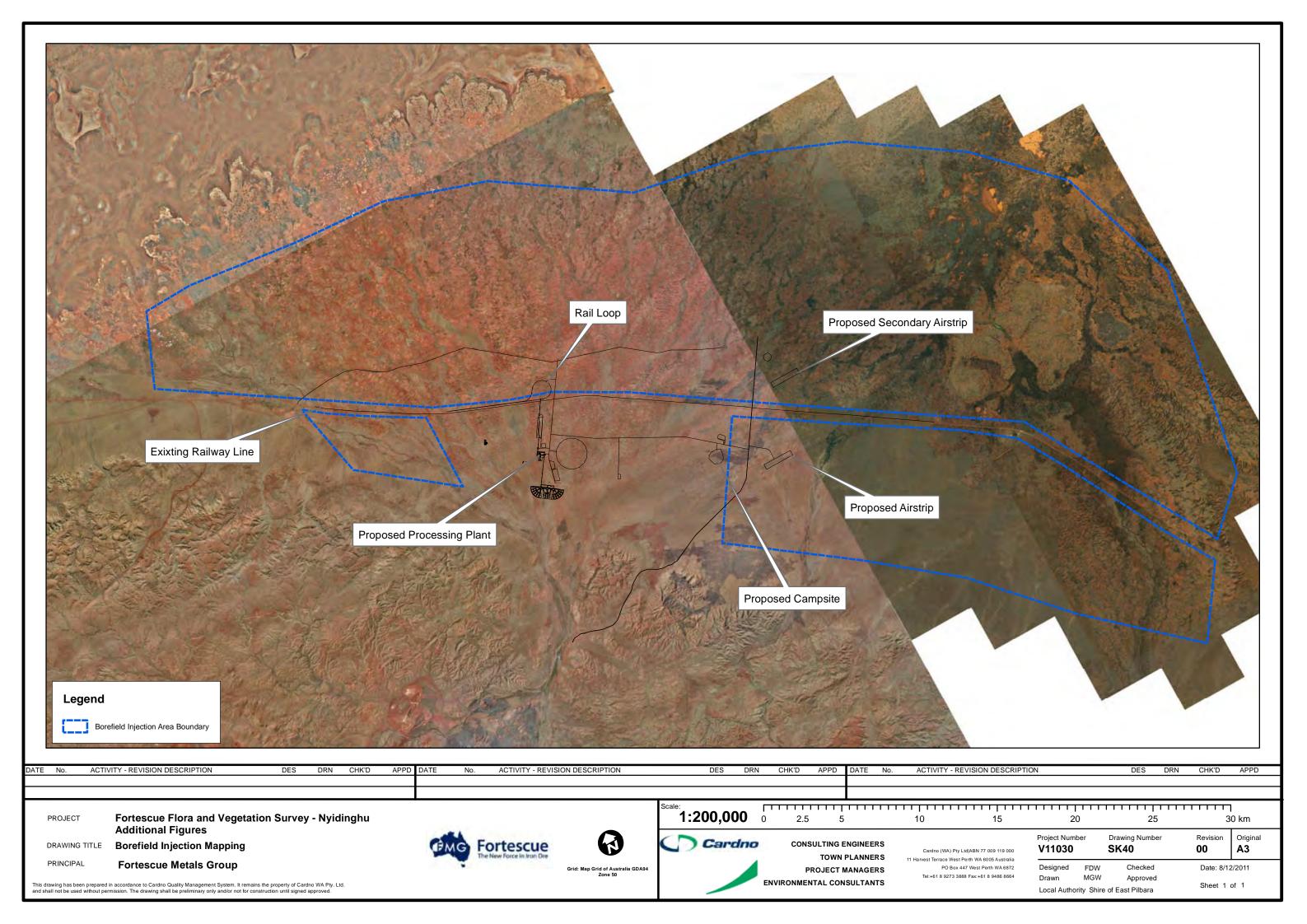
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PRINCIPAL Fortescue Metals Group



Project Number V11030		Original A4
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Appendix A

Desktop Assessment Results

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A total of 45 DRF and Priority Flora were identified in the Desktop Assessment. Of these, Five (5) were previously recorded in the Project Area, these are detailed in the report. Seven (7) Priority species were considered to have potential to occur within the Project Area. These are also detailed in the report.

The remaining 33 species are tabulated below and further described and photograph provided where available.

Species	Cons Code	Potential Presence	Comments
Acacia aphanoclada	P1	Unlikely	Out of range. Previously recorded near Nullagine.
Acacia bromilowiana	P4	Unlikely	Habitat not identified within the Project Area.
Acacia cyperophylla var. omearana	P1	Unlikely	Out of range. Previously recorded near Nullagine.
Acacia fecunda	P3	Unlikely	Out of range and commonly associated with Calcrete.
Acacia sp. Nullagine (B.R. Maslin 4955)	P1	Unlikely	Habitat not identified within the Project Area.
Adiantum capillus-veneris	P2	Unlikely	Associated with gorges and very damp areas.
Atriplex spinulosa	P1	Unlikely	State Herbarium records identify associated species and habitats not present within the Project Area.
<i>Brunonia</i> sp. Long hairs (D.E. Symon 2440)	P1	Unlikely	Habitat not identified in Project Area. Range of species does include the Project Area.
Dampiera metallorum	P3	Unlikely	Habitat not identified within the Project Area.
Eremophila magnifica subsp. velutina	P3	Unlikely	Habitat not identified within the Project Area.
Eremophila spongiocarpa	P1	Unlikely	Known only from saline soils on the Fortescue Marsh.
Eremophila youngii subsp. lepidota	P4	Unlikely	Identified in the northern corridor of the Project Area towards the Fortescue Marsh in association with Mulga woodlands.
Fimbristylis sieberiana	P3	Unlikely	Habitat not identified in the Project Area.
Glycine falcata	P3	Unlikely	Habitat: Cracking clay, basalt, crabhole plain, sumps, black clayey sands. WA Herb record at
Goodenia lyrata	P1	Unlikely	Habitat not identified within the Project Area.
Goodenia sp. East Pilbara (A.A. Mitchell PRP 727)	P1	Unlikely	Habitat not identified within the Project Area.
Indigofera gilesii subsp. gilesii	P3	Unlikely	Habitat not identified within the Project Area. Range of species does include Project Area location.
Indigofera ixocarpa	P2	Unlikely	Habitat not identified within the Project Area.
lotasperma sessilifolium	P3	Unlikely	This species has been previously recorded on cracking clay communities. This

Species	Cons Code	Potential Presence	Comments
			community was not identified within Project Area.
Lepidium catapycnon	R	Unlikely	Preferred habitat not present in Project Area. Individual plants have been recorded outside it's preferred habitat however these incidences are random and do not contribute to the population growth and survival of this species.
Myriocephalus scalpellus	P1	Unknown	This State Herbarium has only one record of this species so information and characteristics of the habit and ecology of this species is limited.
Nicotiana heterantha	P1	Unlikely	Potential habitat would be in the northern corridor in close proximity to the Fortescue Marsh.
Nicotiana umbratica	P3	Unlikely	Habitat not identified in Project Area. Range of species does include Project Area location.
Peplidium sp. Fortescue marsh (S. van Leeuwen 4865)	P1	Unlikely	Limited information available. One record at the State Herbarium was collected on saline flats near the Fortescue Marsh.
Rhynchosia bungarensis	P4	Unlikely	Habitat not identified within the Project Area.
Sida sp. Barlee Range (S. van Leeuwen 1642)	P3	Unlikely	Habitat not identified within the Project Area.
Tecticornia medusa, (recently updated from Tecticorniasp. Roy Hill (H. Pringle 62))	P3	Unlikely	Associated with Fortescue Marsh.
Tecticornia sp. Christmas Creek (K.A. Shepherd & T. Colmer et al. KS 1063)	P1	Unlikely	Associated with Fortescue Marsh.
Tecticornia sp. Fortescue Marsh (K.A. Shepherd et al. KS 1055)	P1	Unlikely	Associated with Fortescue Marsh.
Tephrosia bidwillii	P3	Unlikely	Habitat not located within the Project Area. Previously recorded in north Pilbara near the coast.
Tribulus minutus	P1	Unlikely	The State Herbarium has received only one record of this species which was collected approximately 50 kilometres north of the Fortescue Marsh.
Triodia triticoides	P1	Unlikely	Habitat not identified within the Project Area.

ACANTHACEAE

Rostellularia adscendens var. latifolia - P3

Rostellularia adscendens var. latifolia varies between a herb and a shrub that grows between 0.1-0.3 meters high. Flowers are blue to purple to violet in colour and flowering period is between April and May. Rostellulariaadscendens var. latifolia grows on ironstone soils near creeks and rocky hills. There are currently 12 records of Rostellulariaadscendens var. latifolia at the Western Australia State Herbarium.



Plate 1: Rostellularia adscendens subsp. latifolia Plate from Florabase (WAH 1998-) courtesy of E. Wajon

AMARANTHACEAE

Amaranthus centralis - P3

Amaranthus centralis is an annual erect herb that grows up to 60 cm tall. The stems are angular, sometimes reddish, and their inflorescence are erect terminal spikes that grow up to 60 mm long. A detailed description of Amaranthus centralis was written by Palmer (2009) and published in Nuytsia. There are currently four records of Amaranthus centralis at the Western Australian State Herbarium.

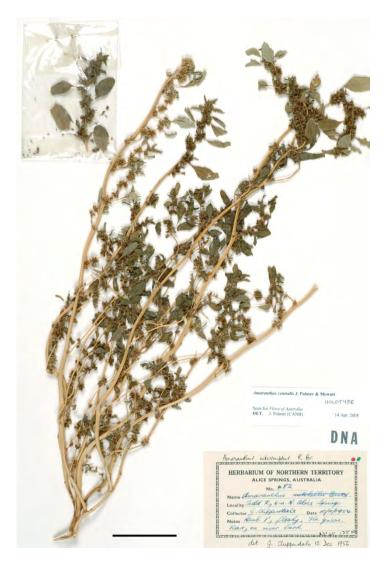


Plate 2: Amaranthus centralisPlate derived from Palmer (2009)

Appendix A – Desktop Assessment Results

Fortescue Metals Group

ASTERACEAE

Brachyscome sp. Wanna Munna Flats (S. van Leeuwen 4662) - P1

Description unavailable. There are 10 records of *Brachyscome* sp. Wanna Munna at the Western Australian State Herbarium.

Iotasperma sessilifolium – P3

lotasperma sessilifolium is an erect herb with pink flowers. It occurs on cracking clay and black loam on edges of waterholes and on plains. There are currently 9 records of *lotasperma sessilifolium* at the Western Australia State Herbarium.

Myriocephalus scalpellus - P1

Myriocephalus scalpellusis a semi-erect herb that grows between 0.03-0.08 meters high. It grows on clay in depressions on floodplains. There is currently only one record of Myriocephalus scalpellusat the Western Australia State Herbarium.

Fortescue Metals Group

BRASSICACEAE

Lepidium catapycnon – R

Lepidium catapycnon is an open, woody perennial herb or shrub that grows between 0.2-0.3 meters high. A significant feature of the *Lepidium catapycnon* is that the stems zigzag. Flowers are white in colour and flowering period is in October. It occurs on skeletal soils and hillsides. There are currently 12 records of *Lepidium catapycnon* at the Western Australia State Herbarium. This species is listed as Vulnerable under the

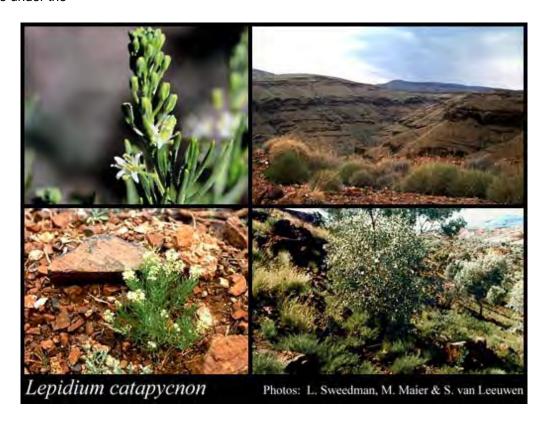


Plate 3: Lepidium catapycnon Plate derived from Florabase (WAH 1998-) courtesy of L. Sweedman, M. Maier and S. van Leeuwen

CHENOPODIACEAE

Atriplex flabelliformis - P3

Monoecious erect rounded perennial herb that grows up to 0.35 m high. Found on clay loam, loam, saline flats and marshes. There are currently 7 records of *Atriplex flabelliformis* at the Western Australian State Herbarium.

Atriplex flabelliformis – P3

Atriplex flabelliformisis a monoecious, erect rounded perennial herb that grows up to 0.35 meters high. It grows on clay loam to loamy soils on saline flats or marshes. There are currently 7 records of Atriplex flabelliformis at the Western Australia State Herbarium.

Atriplex spinulosa – P1

Atriplex spinulosa is a monoecious erect rounded annual herb approximately 0.2 meters high. There are currently 12 records of Atriplex spinulosa the Western Australia State Herbarium.

Tecticorniasp. Christmas Creek (K.A. Shepherd & T. Colmer et al. KS 1063) - P1

Description unavailable for *Tecticornia* sp. Christmas Creek. There are currently 10 records of *Tecticornia* sp. Christmas Creek at the Western Australia State Herbarium.



Plate 4: Tecticornia sp. Christmas CreekPlate derived from Florabase (WAH 1998-) courtesy of G. Byrne

Tecticornia sp. Fortescue Marsh (K.A. Shepherd et al. KS 1055) - P1

Description unavailable for *Tecticornia* sp. Fortescue Marsh. There are currently 10 records of *Tecticornia* sp. Fortescue Marsh at the Western Australia State Herbarium.

Tecticornia sp. Roy Hill (H. Pringle 62) – P3

Tecticornia sp. Roy Hill is an erect yellow-green shrub that grows between 0.4-1.2 meters high. They occur on red clayey sand on flat floodways, lake beds, saline alluvial plains and drainage sumps. There are currently 18 records of *Tecticornia* sp. Roy Hill at the Western Australia State Herbarium.

CYPERACEAE

Fimbristylis sieberiana – P3

A shortly rhizomatous, tufted perennial sedge that grows between 0.25-0.6 meters high. Flowers are brown in colour and flowering period is May-June. Grows on mud and skeletal soil pockets at pool edges and sandstone cliffs. There are currently 14 records of Fimbristylis sieberiana at the Western Australia State Herbarium.



Plate 5: Fimbristylis sieberianaPlate derived from Florabase (WAH 1998-) courtesy of G.R. Guerin

A8

FABACEAE

All Acacia information was derived from the Wattle: Acacias of Australia CD (Maslin 2001) and Florabase (WAH 1998-).

Acacia aphanoclada – P1

Acacia aphanocladais a species known only from the Nullagine area. It is characterised by its wispy habit comprising very slender, single stems (up to 2 cm in DBH) and open crowns with long, narrow, pendulous phylllodes. It grows up to 6 meters high with narrowly linear, almost terete near base or flat phyllodes that are 20-45 centimetres long. Flowers are yellow and flowering period is Aug-Oct. Acacia aphanocladaoccurs on skeletal stony soils on rocky ridges and rises in spinifex country with scattered Eucalyptus species and Acacia species. There are currently 29 records of Acacia aphanoclada at the Western Australia State Herbarium.



Plate 6: Acacia aphanoclada Plate derived from Florabase (WAH 1998-) courtesy of B.R. Maslin and A. Mitchell

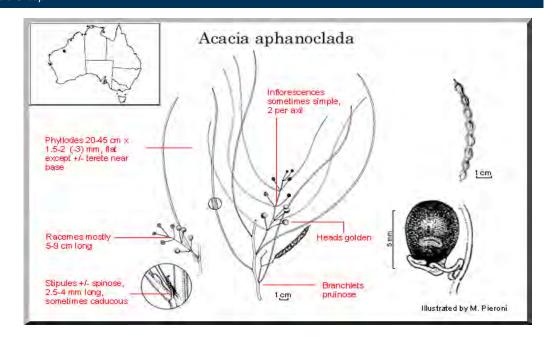


Plate 7: Acacia aphanoclada illustration derived from Maslin (2001) courtesy of M. Pieroni

Acacia bromilowiana - P4

Acacia bromilowiana can be a tree or a shrub that grows up to 12 meters high. The bark is dark grey and fibrous, phyllodes are more or less glaucous and slightly pruinosa, inflorescences are in spikes. Flowers are yellow to pink and flowering period is July-August. Acacia bromilowiana grows on red skeletal stony loam, laterite, banded ironstone and basalt on rocky hills, breakaways, scree slopes, gorges and creek beds. There are currently 24 records of Acacia bromilowiana at the Western Australia State Herbarium.

Acacia cyperophylla var. omearana - P1

Acacia cyperophylla var. omearanais a multistemmed resinous shrub or sometimes a tree that grows up to 12 meteres high with 'Minni Ritchi', reddish or salmon in colour bark. Flowers are yellow and flowering period is March-April. Acacia cyperophylla var. omearanais found on stony and gritty alluvium along drainage lines. There are currently 16 records of Acacia cyperophylla var. omearana at the Western Australia State Herbarium.



Plate 8: Acaciacyperophylla var. omearanaPlate derived from Florabase (WAH 1998-) courtesy of L. Sweedman

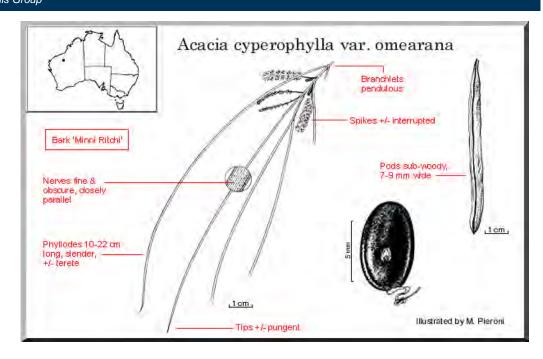


Plate 9: Acacia cyperophylla var. omearana illustration derived from Maslin (2001) courtesy of M. Pieroni

Acacia effusa - P3

Acacia effusa is a low, dense, resinous shrub that grows up to 1 metre high. The bark is 'Minni Ritchi' in grey to grey-red. Acacia effusa is restricted to north-western WA and has only been collected from within the Hamersley Range N.P. where it is locally abundant. It grows on rocky red loam ohn lower slopes particularly along creeks where watercourses leave the hills. Flowers are yellow in colour and flowering period is May-September. There are currently 21 records of Acacia effusa at the Western Australia State Herbarium.



Plate 10: Acacia effusa Plate derived from Florabase (WAH 1998-) courtesy of S. Hopper

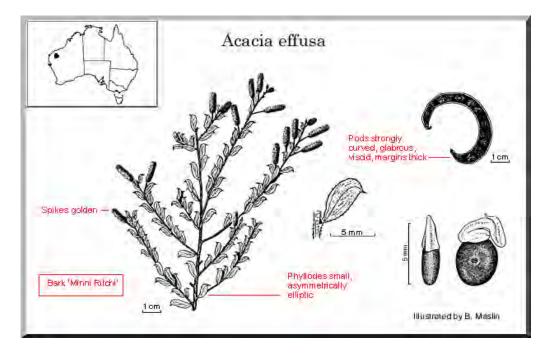


Plate 11: Acacia effusa illustration derived from Maslin (2001) courtesy of B. Maslin

Appendix A – Desktop Assessment Results

Fortescue Metals Group

Acacia fecunda - P3

Acacia fecundais an erect, obconica shrub that grows up to 3 meters high. The bark is grey, smooth and becoming yellow-brown on upper branches. Phyllodes are more or less sub-glaucous with a slight sheen. Flowers are yellow in colour and flowering period is May/August. Acacia fecundagrows on quartzite gibbers over grey-red skeletal soil along shallow creeks and drainage lines, hills and road verges. There are currently 9 records of Acacia fecunda at the Western Australia State Herbarium.

Acacia sp. Nullagine (B.R. Maslin 4955)- P1

Acacia sp. Nullagine is an erect, spindly shrub that grows up to 3 meters high. Bark is 'Minni Ritchi", grey above and red underneath. Acacia sp. Nullagine grows on rocky clay in low-lying areas between rocky hills. There is currently only one record of Acacia sp. Nullagine at the Western Australia State Herbarium.

Acacia subtiliformis – P3

Acacia subtiliformis is a spindly, slender, erect shrub that grows up to 3.5 meters high. Phyllodes are green with slightly viscid new growth, otherwise resinous and aromatic. Inflorescence heads are up to 6 mm in diameter with red peduncles. Flowers are yellow and flowering period is June. Acacia subtiliformis is found on rocky calcrete plateaus. There are currently 11 records of Acacia subtiliformis at the Western Australia State Herbarium.

Glycine falcata - P3

Glycine falcata is a mat-forming perennial herb that grows up to 0.2 meters high. Flowers are blue to purple in colour and flowering period is May-July. Glycine falcata grows on black clayey sand along drainage depressions in crabhole plains on river floodplains. There are 5 records of Glycine falcata at the Western Australia State Herbarium.

Indigofera gilesii subsp. gilesii - P3

Indigofera gilesii subsp. *gilesii* is a shrub that grows up to 1.5 meters high. The flowers are purple to pink in colour and flowering period is May/August. It grows on pebbly loam amongst boulders and outcrops on hills. There are currently 14 records of *Indigofera gilesii* subsp. *gilesii* at the Western Australia State Herbarium.

Indigofera ixocarpa – P2

Indigofera ixocarpa is a shrub that grows up to 1 meter high. Flowers are pink in colour and flowering period is May. *Indigofera ixocarpa*grows on skeletal red soils over massive ironstone. There are currently 12 records of *Indigofera ixocarpa* at the Western Australia State Herbarium.

Rhynchosia bungarensis – P4

Rhynchosia bungarensisis a compact, prostrate shrub that grows up to 0.5 meters high. The flowers are yellow in colour and it grows on pebbly shingly coarse sand amongst boulders. Rhynchosia bungarensiscan be found on banks of flow lines and in the mouth of gullies in a valley wall. There are currently 55 records of Rhynchosia bungarensisat the Western Australia State Herbarium.

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Tephrosia bidwillii - P3

Tephrosia bidwillii is a shrub that grows between 0.3-0.9 meters high. Flowers are orange in colour and flowering period is May/August. There are currently 15 records of *Tephrosia bidwillii* at the Western Australia State Herbarium.



Plate 12: Tephrosia bidwilliiPlate derived from Florabase (WAH 1998-) courtesy of G.F. Craig

GOODENIACEAE

Brunonia sp. Long hairs (D.E. Symon 2440) - P1

Brunonia sp. Long hairs is an erect herb that grows up to 0.07 m high with long spreading hairs on the leaves and spike that grows up to 0.3 m high. It is found along creek lines. There are currently 3 records of *Brunonia* sp. Long hairs at the Western Australia State Herbarium.

Dampiera metallorum

Dampiera metallorum is a rounded multi-stemmed perennial herb up to 0.5 m high. Flowers are blue in colour and flowering period is April–October. Grows on skeletal red-brown gravelly soil over banded ironstone on steep slopes and summits of hills. There are 20 records of *Dampiera metallorum* at the Western Australian State Herbarium.



Plate 13: Dampiera metallorumPlate derived from Florabase (WAH 1998-) courtesy of S. van Leeuwen

Goodenia lyrata- P1

Goodenia lyrata is a prostrate herb with lyrate leaves (shaped like a lyre Ω upside down). Flowers are yellow and flowering period is August. Goodenia lyrata grows on red sandy loam near claypans. There are currently 6 records of Goodenia lyrata at the Western Australia State Herbarium.

Goodenia nuda- P4

Goodenia nuda is an erect to ascending herb that grows up to 0.5 meters high. Flowers are yellow in colour and flowering period is April-August. There are currently 20 records of Goodenia nuda at the Western Australia State Herbarium.



Plate 14: Goodenia nudaPlate derived from Florabase (WAH 1998-) courtesy of K.C. Richardson

Goodenia sp. East Pilbara (A.A. Mitchell PRP 727) - P1

Goodenia sp. East Pilbara is an open, erect annual or biennial herb that grows up to 0.2 meters high. Flowers are yellow in colour and flowering period is August. Goodenia sp. East Pilbara grows on redbrown clay soil, calcrete and pebbles on low undulating or swampy plains. There are currently 14 records of Goodenia sp. East Pilbara at the Western Australia State Herbarium.

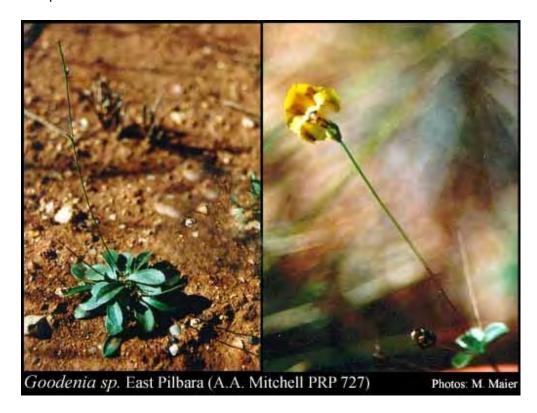


Plate 15: Goodenia sp. East PilbaraPlate derived from Florabase (WAH 1998-) courtesy of M. Maier

MALVACEAE

Sida sp. Barlee Range (S. van Leeuwen 1642) - P3

Sida sp. Barlee Range is a spreading shrub that grows up to 0.5 meters high. The flowers are yellow in colour and its flowering period is in August. Sida sp. Barlee Range grows on skeletal red soil pockets on steep slopes. There are currently 21 records of Sida sp. Barlee Range (S. van Leeuwen 1642) at the Western Australia State Herbarium.



Plate 16: Sida sp. Barlee RangePlate derived from Florabase (WAH 1998-) courtesy of S. van Leeuwen

PHRYMACEAE

Peplidium sp. Fortescue marsh (S. van Leeuwen 4865) – P1

There was no description available for *Peplidium* sp. Fortescue marsh. Currently there is one record of *Peplidium* sp. Fortescue marsh at the Western Australia State Herbarium.

POACEAE

The information for Poaceae species was derived from the AusGrass CD (Sharp and Simon 2002) and Florabase (WAH 1998-).

Aristida jerichoensis var. subspinulifera – P1

Aristida jerichoensis var.subspinulifera is a compactly tufted perennial, grass-like or herb that grows between 0.3-0.8 meters high. The lemma groove is muricate and it grows on hardpan plains. There are currently 7 records of *Aristida jerichoensis* var.subspinulifera at the Western Australia State Herbarium.

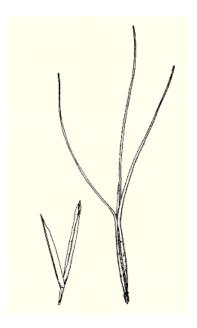


Plate 17: Aristida jerichoensis var. subspinulifera spikelet illustration (Sharp and Simon 2002) courtesy of W. Smith

Fortescue Metals Group

Aristida lazaridis - P2

Aristida lazaridis is a tufted perennial, grass-like or herb that grows between 0.4-1.5 meters high. Flowers are green to purple in colour and flowering period is February to August. Aristida lazaridis grows in Eucalyptus communities on red earths, sandy soils and loams although it has been recorded from clay soils. Aristida lazaridis is characterised by the involute lemma from the furrow of which one margin usually protrudes rather noticeably. There are currently 7 records of Aristida lazaridis at the Western Australia State Herbarium.



Plate 18: Aristida lazaridis spikelet illustration (Sharp and Simon 2002) courtesy of W. Smith

Themeda sp. Hamersley Station (M.E. Trudgen 11431)– P3

Themeda sp. Hamersley Station is a tussocky perennial, grass-like or herb that grows between 0.9-1.8 meters high. Flowering period is in August. *Themeda* sp. Hamersley Station grows on red clay on clay pans and grass plains. There are currently 13 records of *Themeda* sp. Hamersley Station at the Western Australia State Herbarium.

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Appendix A – Desktop Assessment Results Fortescue Metals Group

Triodia triticoides-P1

Triodia triticoides is a tussock-forming perennial, grass-like or herb with culms that grow between 0.45-2 meters high. Flowering period is January-March/June-July. *Triodia triticoides* grows on rocky sandstone and limestone hillslopes. This species is characterised by the spiciform, continuous panicle; asymmetrically lobed glume; deeply and unequally lobed lemmas; broadly winged palea keels; and glumes much shorter than the spikelet. There are currently 6 records of *Triodia triticoides* at the Western Australia State Herbarium.



Plate 19: Triodia triticoides scanned spikelet (Sharp and Simon 2002) courtesy of D. Sharp

PTERIDACEAE

Adiantum capillus-veneris – P2

Rhizomatous perennial herb (fern), 0.1-0.2 meters high. Fronds are 1-2 pinnate with a blackish-brown stipe that is hard and glossy. Sori mariginal between sinuses and oblong in shape. Grows in moist, sheltered sites in gorges and on cliff walls. There are currently 21 records of *Adiantum capillus-veneris* at the Western Australia State Herbarium.

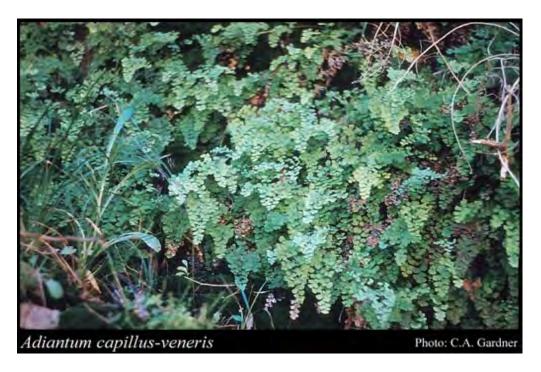


Plate 20: Adiantum capillus-venerisPlate derived from Florabase (WAH 1998-) courtesy of C.A Gardner

SCROPHULARIACEAE

Species details for all Scrophulariaceae was derived from Chinnock (2007) and Florabase (WAH 1998-).

Eremophila magnifica subsp. velutina- P3

Eremophila magnifica subsp. velutina is a shrub that grows between 0.5-1.5 meters high. Flowers are blue to purple in colour and flowering period is August-September. Eremophila magnifica subsp. velutina is known only from between Marandoo and Newman occurring on hillslopes and along ephemeral stream courses on rocky (ironstone) red-brown loams in amongst *Triodia*. There are currently 12 records of Eremophila magnifica subsp. velutina at the Western Australia State Herbarium.

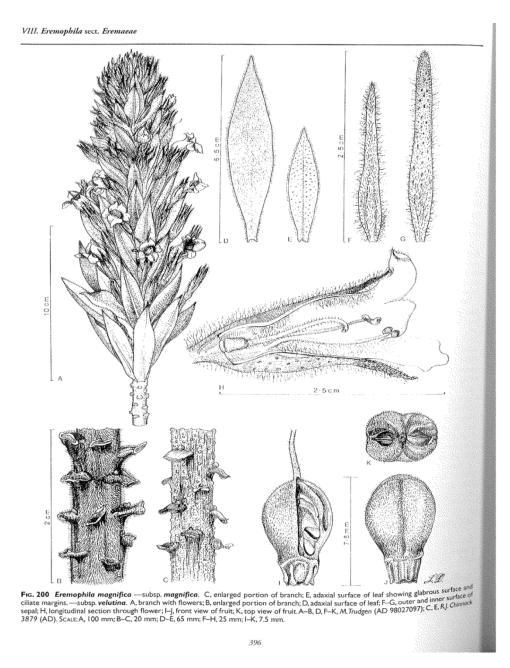


Plate 21: Illustration of Eremophila magnifica subsp. velutina derived from Chinnock (2007)

Eremophila spongiocarpa- P1

Eremophila spongiocarpa is an intricate spreading shrub that grows 0.5-1 meter tall. The branches are rigid and can be spinescent. Leaves are fleshy (7-) 12-24 (-33) x 1.8-4 (-5) mm. Flowers are 1 per axil with a pedicel 3.5-6.5 mm. *Eremophila spongiocarpa* is known only from saline soils on the Fortescue Marsh where it occurs on subsaline red clay loams. There are currently 16 records of *Eremophila spongiocarpa* at the Western Australia State Herbarium.

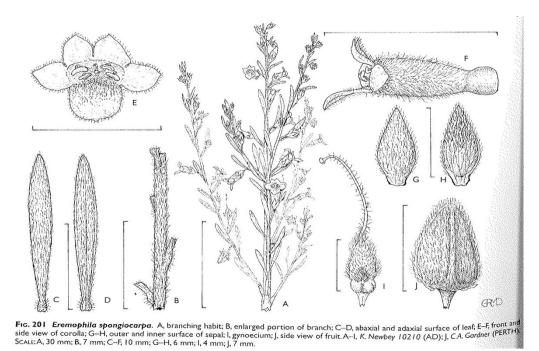


Plate 22: Illustration of *Eremophila spongiocarpa* derived from Chinnock (2007)

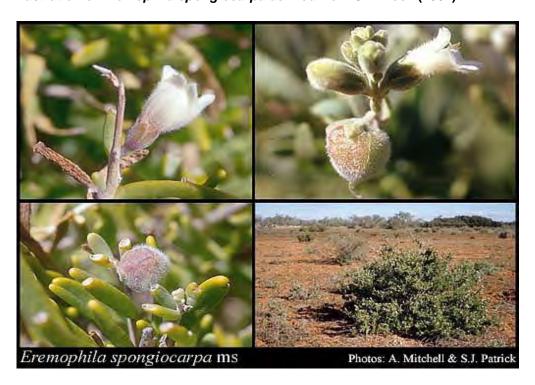


Plate 23: Eremophila spongiocarpa Plate derived from Florabase (WAH 1998-) courtesy of A. Mitchell and S.J. Patrick

Eremophila youngii subsp. lepidota- P4

Eremophila youngii subsp. lepidota is a shrub that has persistent lucid scales on the branches and leaves. The sepals of the flower are imbricate towards the base and are 1.5-2.5 mm long. Flowers are red to pink in colour and flowering period is January-March/June-September. Eremophila youngii subsp. lepidota is restricted to the Carnarvon Botanical District but has some disjunct populations near Fortescue botanical District near Roy Hill, and in the Northern Territory near Mt Doreen Station. Eremophila youngii subsp. lepidota grows in low-lying areas that are subject to periodic flooding, on red-brown clay or sandy loams. They usually occur in Acacia woodland (mulga) and are associated with other species of Eremophila and Senna. There are currently 25 records of Eremophila youngii subsp. lepidota at the Western Australia State Herbarium.

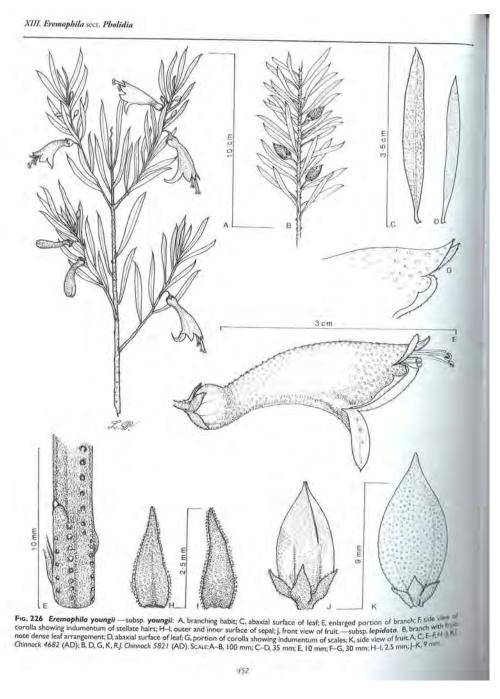


Plate 24: Illustration of Eremophila youngii subsp. youngii derived from Chinnock (2007)



Plate 25: Eremophila youngii subsp. lepidota Plate derived from Florabase (WAH 1998-) courtesy of B. Buirchell and M.J Start

SOLANACEAE

Nicotiana heterantha - P1

Nicotiana heterantha is a decumbent, short-lived annual or perennial herb that forms low spreading colonies and grows up to 0.5 meters high. The flowers are white to cream in colour and flowering period is March-June/September. *Nicotiana heterantha* grows on black clay and seasonally wet flats. There are currently 17 records of *Nicotiana heterantha* the Western Australia State Herbarium.



Plate 26: Nicotiana heterantha Plate derived from Florabase (WAH 1998-) courtesy of G. Byrne

Nicotiana umbratica – P

Nicotiana umbratica is an erect, short-lived annual or perennial herb that grows between 0.3-0.7 meters high. Flowers are white in colour and flowering period is April-June. *Nicotiana umbratica* grows on shallow soils on rocky outcrops. There are currently 12 records of *Nicotiana umbratica* at the Western Australia State Herbarium.

STYLIDIACEAE

Stylidium weeliwolli – P2

Stylidium weeliwolli is an annual herb that grows between 0.1-0.25 meters high. This Stylidium has four throat appendages that are rod-shaped. Flowers are pink to red in colour and flowering period is August-September. Stylidium weeliwolli grows on gritty sand soil and sandy clay on edges of watercourses. There are currently 20 records of Stylidium weeliwolli at the Western Australia State Herbarium.



Plate 27: Stylidium weeliwolli photogrpah derived from Florabase (WAH 1998-) courtesy of S. van Leeuwen

ZYGOPHYLLACEAE

Tribulus minutus - P1

Tribulus minutus is a prostrate herb that is villous (entirely covered with long soft hairs). The leaflet pairs are 5-7 and petals are 2.5-7 mm long with spines on fruit not well-developed. There is currently only one record of *Tribulus minutus*at the Western Australia State Herbarium.

Appendix B

Site Data and Photographs of all Quadrats Monitored in April and July 2011

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Plot	A001	Camera	Brons Cam	era
Date:	29.3.11	Photo #	1050	1051
Date revisit:	1/07/2011	Camera revisit	Lisa Bannis	ster
Initials:	BN	Photo # revisit	lb0247	lb0248
Initials revisit:	SC / LB	Soils	Loams	
Zone:	50	Soil colour:	Red Brown	
Datum:	GDA94	Soil comments:	Rocky	
NW Easting:	744308	Outcrop:	Numerous Ironstone Outcrops	
NW Northing:	7484501	Outcrop Type:	Ironstone	
SE Easting:	744354	Litter cover (%)		
SE Northing:	7484461	Logs	Twigs	Leaves
Topography:	Upper Slope		1	3
Aspect:	Westerly	STRATA	Ht (cm)	% Cover
Slope:	5	Upper		
Time since fire (yrs):	>5	Mid	3000	0.03
Disturbance:	Low	Lower	500	0.4
Condition:	Excellent	Bare ground (%):	0.5	
Observations:	Site bisected by gully			
Species		Height (cm)	% AC	% DC
Acacia bivenosa		350	2	
Eucalyptus leucophloia		300	2	
Fimbristylis simulans			1	
Hakea lorea subsp. lorea				
Keraudrenia nephrosperma		100	0.01	
Ptilotus polystachyus		50	0.001	
Senna glutinosa subsp. glutinosa			0.04	
Senna glutinosa subsp. pruinosa			0.01	
Solanum lasiophyllum		10	0.01	
Solanum sturtianum	·	90	0.02	
Triodia epactia	·	100	5	
Triodia sp. Shovelanna Hil	ll (S. van Leeuwen 3835)		30	





Plot	A002	Camera	Brons Came	era
Date:	29.3.11	Photo #	1052	1053
Date revisit:	1/07/2011	Camera revisit	Lisa Bannist	
Initials:	BN	Photo # revisit	lb0228	lb0229
Initials revisit:	BN / SC	Soils	Loams	100223
Zone:	50	Soil colour:	Red Brown	
Datum:	GDA94	Soil comments:	ixed blown	
NW Easting:	744287	Outcrop:	+	
NW Northing:	7484901	Outcrop Type:		
SE Easting:	744340	Litter cover (%)		
			Turing	1
SE Northing: Topography:	7484851 Flat	Logs	Twigs 5	Leaves 2
		· ·		
Aspect:	N A	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	500	2 7
Time since fire (yrs):	>5	Mid	400	
Disturbance:	Low	Lower	100	60
Condition:	Excellent	Bare ground (%):	30	
Observations:		lee e e e e	1	
Species		Height (cm)	% AC	% DC
Acacia ?sericophylla		250	5	
Acacia ancistrocarpa			2	
Acacia inaequilatera		400	4	
Acacia ligulata		150	1	
Acacia pachyacra			1	
Acacia pruinocarpa			0.1	
Acacia sclerosperma subsp	o. sclerosperma	250	5	
Anthobolus leptomerioides			0.03	
Aristida holathera var. hola	athera		0.5	
Boerhavia coccinea			0.1	
Bonamia rosea			0.1	
Cenchrus ciliaris		50	1	
Cleome viscosa			0.3	
Corchorus sidoides subsp.	sidoides	20	0.1	
Corymbia hamersleyana			3	
Crotalaria medicaginea vai	r neglecta	30	0.1	
Dicrastylis cordifolia	nogrecia	30	0.1	
Eragrostis eriopoda		50	0.3	
Eremophila longifolia		30	5	
Eulalia aurea		60	0.1	
		30	0.1	
Euphorbia alsiniflora		30	0.02	
Euphorbia boophthona				
Fimbristylis simulans	hianidula		0.01	
Grevillea wickhamii subsp.	півріциіа	200	0.03	
Hakea lorea subsp. lorea	No may ro	300	0.6	
Hibiscus sturtii var. platych	namys	30	0.05	
Hybanthus aurantiacus		70	0.5	ļ
Paraneurachne muelleri		70	0.3	
Petalostylis labicheoides			2	
Poaceae sp.		15	0.03	
Rhagodia eremaea			0.04	
Scaevola spinescens		100	0.1	
Senna artemisioides subsp. oligophylla		120	0.3	
Senna artemisioides subsp. oligophylla ? x helmsii		130	0.3	
Senna notabilis			0.1	
Sida sp.			0.03	
Solanum lasiophyllum			0.02	
Trianthema pilosa		20	0.3	
Tribulus macrocarpus			1	
Trichodesma zeylanicum v	ar. zeylanicum	20	0.03	
Triodia epactia	•		15	
Triodia schinzii			15	
l				





Plot	A003	Camera	1	Brons Camer	а
Date:	30.3.11	Photo #		1055	1056
Date revisit:	1/07/2011	Camera		Lisa Banniste	
Initials:	bn	Photo #		lb0236	lb0237
Initials revisit:	SC / LB	Soils	FICVISIC	Loams	100207
Zone:	50	Soil col	our.	Red Brown	
Datum:	gda94		mments:	IXCG DIOWII	
NW Easting:	744069	Outcro		n/a	
NW Northing:	7484937	Outcro		Π/α	
SE Easting:	744119		over (%)		
SE Northing:	7484888	Logs	OVEI (70)	Twigs	Leaves
Topography:	flat	Logs		i wigs	2
Aspect:	n/a		STRATA	Ht (cm)	% Cover
Slope:	n/a	Upper	JINAIA	Tit (Cili)	70 OOVC1
Time since fire (yrs):	>5	Mid		300	1
Disturbance:	moderate	Lower		50	15
Condition:			ound (%):	85	13
Observations:	vg	f grazing grazing			
	Jobylous signs o			% AC	% DC
Species Acacia ?melleodora		Height	(CIII)	0.1	% DC
		200		0.1	
Acacia ancistrocarpa				0.5	
Acacia pachyacra				0.5	
Acacia pruinocarpa					
Acacia sclerosperma subsp.	scierosperma				
Acacia synchronicia				0.00	
Aristida contorta				0.03	
Aristida holathera var. holath	nera			0.3	
Aristida inaequiglumis				0.01	
Boerhavia coccinea				0.3	
Cenchrus ciliaris				0.01	
Cleome viscosa	*.1. *.1			0.05	1
Corchorus sidoides subsp. s	idolaes			0.2	1
Cymbopogon obtectus				0.05	1
Dicrastylis cordifolia				0.05	1
Eragrostis eriopoda				10	1
Euphorbia ?australis				0.03	
Gossypium australe	in a labata			0.2	+
Grevillea wickhamii subsp. h				0.5	+
Hibiscus sturtii var. platychlamys				0.5	
Hibiscus sturtii var. Platychlamys					
Paraneurachne muelleri				0.1	
Poaceae sp.				0.03	
Senna artemisioides subsp. oligophylla				0.1	<u> </u>
Senna notabilis				0.1	<u> </u>
Solanum lasiophyllum					
Stemodia sp.				0.01	
Trianthema pilosa				0.01	
Tribulus macrocarpus				0.5	
Triodia epactia				4	





Plot	A004	Camera	Brons Camer	a
Date:	30.3.11	Photo #	1056	1057
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	
Initials:	bn	Photo # revisit	lb0264	lb0265
Initials revisit:	SC / LB	Soils	Clay Loams	
Zone:	50	Soil colour:	Red Brown	
Datum:	gda94	Soil comments:		
NW Easting:	743353	Outcrop:	n/a	
NW Northing:	7485354	Outcrop Type:		
SE Easting:	743402	Litter cover (%)		
SE Northing:	7485304	Logs	Twigs	Leaves
Topography:	flat		2	2
Aspect:	n/a	STRATA	Ht (cm)	% Cover
Slope:	nonE	Upper	500	0.5
Time since fire (yrs):	>5	Mid	300	5
Disturbance:	low	Lower	100	40
Condition:	Excellent	Bare ground (%):	50	
Observations:				
Species		Height (cm)	% AC	% DC
Acacia inaequilatera			5	
Acacia synchronicia			0.5	
Aristida contorta		25	0.7	
Aristida holathera			0.01	
Boerhavia coccinea			0.3	
Cleome viscosa			0.1	
Corchorus sidoides subs	sp. sidoides		0.1	
Corymbia hamersleyana			0.5	
Cucumis maderaspatant	IS		0.3	
Dysphania rhadinostach	ya		0.01	
Enneapogon polyphyllus			0.5	
Eriachne pulchella subsp	o. <i>pulchella</i>	5	0.01	
Euphorbia ?australis			0.03	
Goodenia microptera			0.01	
Goodenia prostrata		pr	0.01	
Heliotropium inexplicitun		4	0.01	
Hibiscus sturtii var. platy	rchlamys		0.1	
Paraneurachne muelleri			0.5	
Paspalidium basicladum		20	0.1	
Portulaca oleracea		pr	0.1	
Ptilotus exaltatus var. exaltatus		50	0.3	
Ptilotus helipteroides		25	0.05	
Ptilotus obovatus			0.01	
Rhynchosia minima		10	0.03	
Senna artemisioides subsp. oligophylla x helmsii			0.3	
Senna notabilis			0.3	
Solanum lasiophyllum			0.5	
Sporobolus australasicus	S	5	0.02	
Themeda triandra			0.01	
Trianthema pilosa			0.2	
Triodia epactia			35	





Plot	A005	Camera	Brons Carr	nera
Date:	30.3.11	Photo #	1058	1059
Date revisit:	1/07/2011	Camera revisit	Lisa Banni	ster
Initials:	bn	Photo # revisit	lb0295	lb0296
Initials revisit:	SC / LB	Soils	Clay Loam	S
Zone:	50	Soil colour:	red brown	
Datum:	gda9	Soil comments:		
NW Easting:	742340	Outcrop:	n/a	
NW Northing:	7486290	Outcrop Type:		
SE Easting:	742389	Litter cover (%)		
SE Northing:	7486241	Logs	Twigs	Leaves
Topography:	flat		4	2
Aspect:	n/a	STRATA	Ht (cm)	% Cover
Slope:	n/a	Upper	500	2
Time since fire (yrs):	>5	Mid	300	8
Disturbance:	low	Lower	50	40
Condition:	excellent	Bare ground (%):	50	
Observations:				
Species	1	Height (cm)	% AC	% DC
Acacia adoxa var. adoxa	э			
Acacia dictyophleba		80	0.3	
Acacia pachyacra			0.5	
Acacia pruinocarpa			0.03	
Aristida holathera var. h	olathera		0.3	
Bonamia rosea		30	0.05	
Cenchrus ciliaris			1	
Corymbia hamersleyana			2	
Dicrastylis cordifolia			0.3	
Eragrostis eriopoda			0.5	
Eucalyptus gamophylla		300	8	
Euphorbia alsiniflora			0.03	
Gossypium australe			0.2	
Hakea lorea subsp. lore	Hakea lorea subsp. lorea		0.3	
Hybanthus aurantiacus			0.1	
Melhania oblongifolia		50	0.5	
Melhania oblongifolia			0.03	
Mollugo molluginea		20	0.03	
Senna artemisioides subsp. Oligophylla			0.01	
Solanum lasiophyllum			0.02	
Triodia epactia			4	
Triodia schinzii			35	





Plot	A006	Camera	Brons Came	ra
Date:	30.3.11	Photo #	1060	1061
Date revisit:	1/07/2011	Camera revisit		
Initials:	bn	Photo # revisit		
Initials revisit:	SC / LB	Soils	clay loams	.50201
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:		1
NW Easting:	744058	Outcrop:	n/a	
NW Northing:	7486769	Outcrop Type:		
SE Easting:	744107	Litter cover (%)		
SE Northing:	7486720	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:	n/a	STRATA	Ht (cm)	% Cover
Slope:	n/a	Upper	` ′	
Time since fire (yrs):	>5	Mid	250	3
Disturbance:	low	Lower	100	30
Condition:	excellent	Bare ground (%	65	
Observations:		J (//	•	•
Species	L	Height (cm)	% AC	% DC
Acacia ancistrocarpa			0.3	
Acacia bivenosa			0.3	
Acacia inaequilatera			3	
Acacia pruinocarpa			0.4	
Aristida contorta			1	
Aristida holathera var. holather	ra		0.1	
Aristida inaequiglumis	-		0.01	
Boerhavia coccinea			0.2	
Bulbostylis barbata		5	0.1	
Bulbostylis barbata		15	0.03	
Cleome viscosa			0.03	
Corchorus sidoides subsp. sid	oides		0.03	
Cucumis maderaspatanus			0.1	
Cymbopogon obtectus			0.1	
Eragrostis eriopoda			2	
Eulalia aurea			0.03	
Euphorbia alsiniflora			0.01	
Goodenia prostrata			0.02	
Goodenia prostrata			0.02	
Gossypium australe			0.03	
Hibiscus sturtii var. platychlam	<i>y</i> s		0.2	<u> </u>
Indigofera monophylla	•	20	0.03	<u> </u>
Paraneurachne muelleri			1	<u> </u>
Poaceae sp.			0.1	
Portulaca oleracea			0.01	
Ptilotus astrolasius			0.01	<u> </u>
Ptilotus helipteroides			0.01	<u> </u>
Senna artemisioides subsp. oligophylla			0.1	
Senna notabilis			0.05	<u> </u>
Sida sp.			0.03	<u> </u>
Solanum lasiophyllum			0.07	
Solanum sturtianum		10	0.01	<u> </u>
Tephrosia supina		5	0.01	
Trianthema pilosa			0.2	
Tribulus macrocarpus			0.05	
Trichodesma zeylanicum var. 2	zevlanicum		0.03	
Triodia epactia			30	
Yakirra australiensis		<u> </u>	0.01	<u> </u>
Tamila adolianonoio		J U. U I	<u> </u>	





Plot	A007		Camera	Brons Camera	
Date:	30.3.11		Photo #	1062	1063
Date revisit:	1/07/2011		Camera revisit	Lisa Bannister	
Initials:	bn		Photo # revisit		lb0381
Initials revisit:	SC / LB		Soils	Clay Loams	100001
Zone:	50		Soil colour:	red brown	
Datum:	gda94		Soil comments:	rea brown	
NW Easting:	739986		Outcrop:		
NW Northing:	7485991		Outcrop Type:		
SE Easting:	740036		Litter cover (%)		
SE Northing:	7485940		Logs	Twigs	Leaves
Topography:	flat		Logo	2	3
Aspect	n/a		STRATA	Ht (cm)	% Cover
Slope	Tiya		Upper	600	1
Time since fire (yrs):	>5		Mid	300	15
Disturbance:	low		Lower	70	35
Condition:	excellent		Bare ground (%):	60	
Observations:	O.COOHOTIC		-a.o g.ouiiu (70).	1 00	
Species	1		Height (cm)	% AC	% DC
Abutilon lepidum			rioigin (oiii)	0.03	70 2 0
Acacia ancistrocarpa				10	
Acacia inaequilatera				3	
Acacia pachyacra				0.5	
Acacia pruinocarpa				0.1	
Acacia sclerosperma sul	osp sclerosperma		200	0.5	
Anthobolus leptomerioide			180	0.5	
Aristida contorta	50		100	0.5	
Cleome viscosa				0.1	
Corchorus sidoides subs	sp. sidoides			0.06	
Corymbia hamersleyana				1	
Cucumis maderaspatanu				0.1	
Dicrastylis cordifolia				0.1	
Eriachne aristidea				0.01	
Euphorbia ?australis				0.05	
Euphorbia boophthona			50	0.02	
Gomphrena affinis subsp	o, pilbarensis		30	0.03	
Gomphrena cunningham	•		10	0.01	
Grevillea wickhamii subs				0.3	
Hakea chordophylla	' '		300	0.5	
Hakea lorea subsp. lorea				1	
Heliotropium inexplicitum				0.01	
Mollugo molluginea			10		
Phyllanthus maderaspatensis			20	0.03	
Senna artemisioides subsp. oligophylla				0.3	
Senna notabilis				0.22	
Solanum lasiophyllum				0.01	
Trianthema pilosa				0.1	
Trichodesma zeylanicum	var. zeylanicum			0.03	
Triodia epactia	•			30	
Velleia panduriformis			30	0.02	
Yakirra australiensis			10	0.1	
ramina adotrationolo					





Plot	A008	Camera	Brons Camer	а
Date:	31.3.11	Photo #	1064	1065
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	
Initials:	bn	Photo # revisit	lb0342	lb0343
Initials revisit:	SC / LB	Soils	Loams	1.000.0
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:	blocky surface	e gravel
NW Easting:	739793	Outcrop:	n/a	l
NW Northing:	7485686	Outcrop Type:		1
SE Easting:	739843	Litter cover (%)		
SE Northing:	7485637	Logs	Twigs	Leaves
Topography:	Lower slope		1	1
Aspect	north	STRATA	Ht (cm)	% Cover
Slope	n/a	Upper		
Time since fire (yrs):	>5	Mid	200	2
Disturbance:	low	Lower	50	20
Condition:	excellent	Bare ground (%):	80	
Observations				
Species		Height (cm)	% AC	% DC
Acacia inaequilatera			0.3	
Acacia pachyacra			0.1	
Aristida holathera			0.01	
Boerhavia coccinea			0.01	
Cleome viscosa			0.03	
Eriachne aristidea			0.01	
Eriachne pulchella subsp	o. <i>dominii</i>		0.01	
Euphorbia ?australis			0.02	
Fimbristylis simulans			1	
Gomphrena affinis subs	o. <i>pilbarensi</i> s		0.01	
Gomphrena cunningham			0.03	
Grevillea wickhamii subs			2	
Haloragis gossei var. go	ssei		0.01	
Mollugo molluginea			0.05	
Polycarpaea holtzei			0.03	
Portulaca oleracea			0.02	
Ptilotus calostachyus			0.01	
Ptilotus exaltatus var. exaltatus			0.01	
Senna artemisioides subsp. oligophylla			0.02	
Senna artemisioides subsp. oligophylla ? x helmsii			0.01	
Senna glutinosa subsp. pruinosa			0.1	
Solanum lasiophyllum			0.1	
Solanum sturtianum			0.03	
Trachymene oleracea su	•		0.01	
Trianthema glossostigma			0.01	
Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)			18	





Plot	A009	Camera	Brons Camera	
Date:	31.3.11	Photo #	1067	1068
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	1000
Initials:	bn	Photo # revisit	lb0402	lb0403
Initials revisit:	SC / LB	Soils	Loams	100400
Zone:	50 / LB	Soil colour:	red brown	T
			rea brown	
Datum:	gda94	Soil comments:		1
NW Easting:	739453	Outcrop:		
NW Northing:	7486105	Outcrop Type:		
SE Easting:	739503	Litter cover (%)		
SE Northing:	7486057	Logs	Twigs	Leaves
Topography:	flat		3	5
Aspect	n/a	STRATA	Ht (cm)	% Cover
Slope		Upper		
Time since fire (yrs):	5	Mid	300	8
Disturbance:	low	Lower	70	50
Condition:	excellent	Bare ground (%):	40	
Observations				
Species		Height (cm)	% AC	% DC
?Polymeria sp.		7	0.07	
Acacia ?sericophylla			0.01	
Acacia adoxa var. adoxa				
Acacia ancistrocarpa			3	
Acacia dictyophleba		220	0.2	
Acacia elachantha		200	0.1	
Acacia hilliana		100	0.2	
Acacia pachyacra				
Acacia spondylophylla		150	0.5	
Acacia tumida var. pilbarens	sis	50	0.05	
Aristida holathera var. holatl	hera			
Bonamia rosea			0.01	
Bonamia rosea				
Corchorus sidoides subsp. s	sidoides			
Cucumis maderaspatanus			0.1	
Dicrastylis cordifolia				
Eriachne aristidea			0.01	
Eriachne aristidea			0.1	
Eucalyptus gamophylla			0.5	
Euphorbia ?australis				
Goodenia microptera			0.01	
Gossypium robinsonii			0.01	
Grevillea wickhamii subsp. hispidula			1	
Hakea lorea subsp. lorea			0.6	
Indigofera monophylla		30	0.05	
Petalostylis labicheoides			2	
Polycarpaea longiflora			0.01	
Senna glutinosa subsp. pruinosa			0.1	
Senna notabilis			0.5	
Tephrosia sp.			0.01	
Trichodesma zeylanicum var. zeylanicum				
Triodia epactia			35	
Unidentifiable sp.		100	0.05	

Yakirra australiensis	0.1	





DI.	14040	lo.	- In	
Plot	A010	Camera	Brons Came	
Date:	31.3.11	Photo #	1070	1071
Date revisit:	1/07/2011	Camera revisit	Lisa Bannist	1
Initials:	bn	Photo # revisit	lb0390	lb0391
Initials revisit:	SC / LB	Soils	Loams	1
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:		
NW Easting:	739075	Outcrop:	n/a	
NW Northing:	7486246	Outcrop Type:		
SE Easting:	739127	Litter cover (%)		
SE Northing:	7486197	Logs	Twigs	Leaves
Topography:	flat		2	4
Aspect	north	STRATA	Ht (cm)	% Cover
Slope	n/a	Upper	` '	
Time since fire (yrs):	>5	Mid	300	15
Disturbance:	low	Lower	70	60
Condition:	excellent	Bare ground (%):	35	
Observations	- CACCHOIN	(///		
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adoxa		ineight (em)	0.03	
Acacia ancistrocarpa			10	
Acacia arida		170	0.3	+
		170	0.3	+
Acacia elachantha				
Acacia inaequilatera			0.8	
Acacia pachyacra			0.3	
Acacia pruinocarpa			0.02	
Acacia pyrifolia	th		0.03	
Aristida holathera var. hola	tnera		0.05	
Bonamia rosea			0.03	
Cleome viscosa			0.2	
Corchorus sidoides subsp. sidoides			0.1	
Cymbopogon obtectus			0.01	
Dicrastylis cordifolia			0.1	
Eriachne aristidea	- 111 1-		0.1	
Gomphrena affinis subsp. p	olibarensis		0.01	
Gravilla a wieldarrii auban	hiomidula		0.01	
Grevillea wickhamii subsp.	nispidula		0.5	
Hakea chordophylla			0.3	
Hakea chordophylla				
Hakea lorea subsp. lorea	_;		0.5	
Haloragis gossei var. gossei			0.01	1
Hybanthus aurantiacus			0.03	1
Mollugo molluginea			0.01	+
Petalostylis labicheoides			0.03	+
Phyllanthus maderaspaten	313		0.03	+
Polymeria ambigua			0.01	+
Rhynchosia minima			0.01	+
Scaevola parvifolia subsp. parvifolia			0.01	
Senna artemisioides subsp. oligophylla			2	+
Senna notabilis		10	0.01	+
Sida sp. Pilbara (A.A. Mitchell PRP 1543)		20	0.01	
Tephrosia rosea var. glabrior Trachymene oleracea subsp. oleracea		20	0.02	
	p. 0151a05a		0.02	
Trianthema pilosa Trichodesma zeylanicum var. zeylanicum			0.02	+
-	ar. 2 0 ylarılculli		50	
Triodia epactia			0.03	+
Velleia panduriformis			0.03	1
Velleia panduriformis				
Yakirra australiensis			0.2	1

Plot	A011	Camara	Prope Care	oro
Date:	31.3.11	Camera Photo #	Brons Cam 1072	1073
Date:	1/07/2011	Camera revisit	Lisa Bannis	
Initials:	bn	Photo # revisit	lb0400	lb0401
Initials revisit:	SC / LB	Soils	Loams	100401
Zone:	50 / LB	Soil colour:	red brown	
Datum:	gda94	Soil comments:	small rocks	i I
NW Easting:	738599	Outcrop:	n/a	
NW Northing:	7486247	Outcrop Type:		
SE Easting:	738650	Litter cover (%)	Turkers	
SE Northing:	7486197	Logs	Twigs	Leaves
Topography:	low rise	077474	3	1
Aspect:	east	STRATA	Ht (cm)	% Cover
Slope:	1	Upper	200	0
Time since fire (yrs):	>5	Mid	200	8
Disturbance:	low	Lower	80	60
Condition:	excellent	Bare ground (%):	35	
Observations		Uninkt (am)	0/ 4.0	% DC
Species		Height (cm)	% AC	/ ₀ DC
Acacia adoxa var. adoxa			2	
Acacia adoxa var. adoxa				
Acacia ancistrocarpa			5	
Acacia bivenosa			0.2	
Acacia elachantha			0.1	
Acacia elachantha			0.04	
Aristida contorta	- (1		0.01	
Aristida holathera var. holathera			0.00	
Bonamia rosea			0.03	
Bulbostylis barbata			0.01 0.1	
Cleome viscosa Corymbia hamersleyana			0.1	
Dicrastylis cordifolia			0.3	
		100	0.06	
Dodonaea coriacea Dysphania rhadinostachya		10	0.02	
Eragrostis eriopoda	•		0.02	
Eriachne aristidea				
Eriachne pulchella subsp. dominii			0.02	
Eucalyptus gamophylla			0.3	
Euphorbia alsiniflora			0.01	
Gomphrena affinis subsp.	pilbarensis			
Grevillea wickhamii subsp. hispidula			2	
Grevillea wickhamii subsp				
Hakea lorea subsp. lorea			0.3	
Hybanthus aurantiacus			0.1	
Indigofera monophylla			0.02	
Mollugo molluginea				
Paraneurachne muelleri			0.1	
Petalostylis labicheoides			0.3	
Scaevola parvifolia subsp. parvifolia		25	0.1	
Senna artemisioides subsp. oligophylla			0.2	
Senna glutinosa subsp. gl	utinosa			
Senna notabilis			0.01	
Sida sp.		20	0.05	
Trianthema pilosa			0.03	
Trichodesma zeylanicum			0.02	
Triodia epactia			45	

Yakirra australiensis		





Plot	A012	Camera	Brons Camera	a
Date:	31.3.11	Photo #	1074	1075
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	
Initials:	bn	Photo # revisit	lb0362	lb0363
Initials revisit:	SC / LB	Soils	rocky loams	100000
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:	rocky surface	
NW Easting:	738138	Outcrop:	TOCKY Surface	
		-		
NW Northing:	7486249	Outcrop Type:		
SE Easting:	738188	Litter cover (%)	—	l
SE Northing:	7486199	Logs	Twigs	Leaves
Topography:	low rise	1	·	1
Aspect:	north east	STRATA	Ht (cm)	% Cover
Slope:	1	Upper	222	
Time since fire (yrs):	>5	Mid	300	2
Disturbance:	low	Lower	70	25
Condition:	excellent	Bare ground (%):	70	
Observations		T	ı	
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adoxa			1	
Acacia bivenosa			0.5	
Acacia pachyacra			0.3	
Aristida contorta			0.01	
Aristida holathera var. ho	olathera		0.05	
Bonamia media var. villo	sa	pr	0.01	
Codonocarpus cotinifoliu	s	90	0.3	
Dicrastylis cordifolia			0.1	
Dysphania rhadinostachy	/a		0.01	
Eragrostis eriopoda			0.01	
Eriachne obtusa				0.02
Eriachne pulchella			0.01	
Euphorbia ? australis			0.01	
Fimbristylis simulans			0.03	
Gomphrena affinis subsp	o. pilbarensis		0.05	
Goodenia microptera		20	0.03	
Grevillea wickhamii subs	p. hispidula		2	
Hakea chordophylla			0.3	
Heliotropium ? pachyphy		10	0.01	
Heliotropium pachyphyllu	ım		0.01	
Indigofera monophylla		20	0.02	
Mollugo molluginea			0.1	
Petalostylis labicheoides			0.1	
Polycarpaea corymbosa			0.01	
Polycarpaea holtzei			0.01	
Ptilotus astrolasius		20	0.01	
Ptilotus calostachyus		90	1	
Senna artemisioides sub			0.01	
Senna glutinosa subsp. μ	oruinosa		0.1	
Sida arenicola		100	0.05	
Solanum lasiophyllum			0.03	
Trianthema glossostigma			0.02	
Trianthema glossostigma	9	pr	0.01	

Triodia epactia	10	
Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)	10	





Plot	A013	Camera	brons came	era
Date:	1.4.11	Photo #	1079	1080
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	bn	Photo # revisit	lb0490	lb0491
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:		
NW Easting:	734388	Outcrop:		
NW Northing:	7497071	Outcrop Type:		
SE Easting:	734438	Litter cover (%)		
SE Northing:	7497019	Logs	Twigs	Leaves
Topography:	flat		2	5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:	n/a	Upper	600	5
Time since fire (yrs):	>5	Mid	250	2
Disturbance:	high	Lower	60	25
Condition:	poor	Bare ground (%):	655	
Observations	This area has been used for	or cattle grazing and	is heavily d	_
Species		Height (cm)	% AC	% DC
Acacia aneura		100	0.1	
Acacia citrinoviridis		400	1	
Acacia inaequilatera			0.03	
Acacia pruinocarpa			3	
Acacia sclerosperma subs	sp. sclerosperma	200	0.5	
Acacia synchronicia		200	1	
Atalaya hemiglauca		250	0.7	
Cenchrus ciliaris			25	
Cleome viscosa			0.01	
Corymbia hamersleyana			2	
Dysphania sp.		10	0.03	
Hakea lorea subsp. lorea			1	
Ipomoea muelleri				





Plot	A014	Camera	Brons Cam	nera
Date:	1.4.11	Photo #	1080	1081
Date revisit:	1/07/2011	Camera revisit	Lisa Bannis	ster
Initials:	bn	Photo # revisit	lb0477	lb0478
Initials revisit:	SC / LB	Soils	Loams	
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:		
NW Easting:	733489	Outcrop:		
NW Northing:	7496757	Outcrop Type:		
SE Easting:	733541	Litter cover (%)		
SE Northing:	7496707	Logs	Twigs	Leaves
Topography:	flat		3	5
Aspect:	n/a	STRATA	Ht (cm)	% Cover
Slope:		Upper	600	0.5
Time since fire (yrs):	>5	Mid	400	4
Disturbance:	low	Lower	80	50
Condition:	excellent	Bare ground (%):	40	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia			0.2	
Acacia dictyophleba			0.3	
Acacia inaequilatera			3	
Acacia pachyacra			1	
Aristida holathera var. ho	olathera		0.03	
Bonamia rosea			0.1	
Cenchrus ciliaris			0.5	
Corymbia hamersleyana			0.5	
Dicrastylis cordifolia			0.01	
Eragrostis eriopoda			0.02	
Grevillea sp.			0.03	
Hybanthus aurantiacus			0.03	
Petalostylis labicheoides			0.1	
Ptilotus astrolasius			0.01	
Solanum lasiophyllum			0.3	
Trianthema pilosa			0.01	
Triodia epactia			50	





Plot:	A015	Camera	Brons Camera	
Date:	1.4.11	Photo #	1084	1083
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	ı
Initials:	bn	Photo # revisit	lb0486	lb0487
Initials revisit:	SC / LB	Soils	Loams	<u>I</u>
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:		
NW Easting:	734068	Outcrop:		
NW Northing:	7496420	Outcrop Type:		1
SE Easting:	734118	Litter cover (%)		
SE Northing:	7496370	Logs	Twigs	Leaves
Topography:	flat		2	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	` /	
Time since fire (yrs):	>5	Mid	200	15
Disturbance:	low	Lower	80	55
Condition:	excellent	Bare ground (%):	40	
Observations			•	•
Species	•	Height (cm)	% AC	% DC
Abutilon otocarpum			0.01	
Acacia ancistrocarpa			12	
Acacia dictyophleba			0.5	
Acacia elachantha			0.05	
Acacia hilliana				
Acacia inaequilatera			0.1	
Acacia sclerosperma sul	bsp. <i>sclerosperma</i>			
Acacia spondylophylla			0.03	
Aristida holathera var. h	olathera		0.01	
Aristida inaequiglumis			0.02	
Boerhavia coccinea				
Cenchrus ciliaris			0.01	
Chrysopogon fallax			0.03	
Cleome viscosa				
Corchorus sidoides subs	sp. sidoides		0.01	
Dicrastylis cordifolia			0.01	
Eriachne aristidea			0.01	
Gomphrena affinis subsp	o. piibarensis		0.01	
Gossypium australe				
Hybanthus aurantiacus			0.0	
Petalostylis labicheoides			0.3	
Senna artemisioides sub	pap. uligupriyila		0.03	
Solanum lasiophyllum			0.02	
Trianthema pilosa Tribulus macrocarpus			0.01	
Triodia epactia			55	
тпоша врасна		1	JJJ	





Plot:	A016	Camera	brons came	era
Date:	1.4.11	Photo #	1085	1086
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	bn	Photo # revisit	lb0488	lb0489
Initials revisit:	SC / LB	Soils	loamS	
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:		
NW Easting:	734164	Outcrop:		
NW Northing:	7496744	Outcrop Type:		
SE Easting:	734216	Litter cover (%)		
SE Northing:	7496695	Logs	Twigs	Leaves
Topography:	flat	1		1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	1
Time since fire (yrs):	5	Mid	300	2
Disturbance:	high	Lower	50	25
Condition:	poor	Bare ground (%):	70	
Observations	significant burnt logs evident not			
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		300	2	
Acacia inaequilatera			0.4	
Acacia pachyacra		250	2	
Cenchrus ciliaris			25	
Cleome viscosa			0.01	
Cucumis maderaspatant	us		0.03	
Eucalyptus victrix		700	1	
Euphorbia australis			0.01	
Hakea lorea subsp. lore	a		0.2	





Plot:	A017	Camera	Brons Cam	nera
Date:	1.4.11	Photo #	1087	1088
Date revisit:	1/07/2011	Camera revisit	Lisa Banni	ster
Initials:	bn	Photo # revisit	lb0506	lb0507
Initials revisit:	SC / LB	Soils	Loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	736852	Outcrop:		
NW Northing:	7497675	Outcrop Type:		
SE Easting:	736904	Litter cover (%)		
SE Northing:	7497625	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	2
Time since fire (yrs):	>5	Mid	250	3
Disturbance:	high	Lower	50	20
Condition:	poor	Bare ground (%):	75	
Observations	grazing by cattle		ı	
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia			0.3	
Acacia ancistrocarpa			0.3	
Acacia citrinoviridis		700	0.3	
Acacia pruinocarpa			1	
Acacia sclerosperma su	bsp. <i>sclerosperma</i>		3	
Acacia synchronicia		50	0.04	
Acacia tetragonophylla		170	0.1	
Cenchrus ciliaris			20	
Chrysopogon fallax			0.05	
Corymbia hamersleyana	1		1	
Dysphania sp.			0.01	
Enneapogon polyphyllus	3		20	





Diete	10040	0	D O	
Plot:	A018	Camera	Brons Camera	4000
Date:	2.4.11	Photo #	1090	1089
Date revisit:	N/A	Camera revisit		
Initials:	bn	Photo # revisit		
Initials revisit:		Soils	Clay loams	
Zone:	50	Soil colour:	orange brown	
Datum:	GDA94	Soil comments:	salt scald in cent	er of plot
NW Easting:	743199	Outcrop:		
NW Northing:	7513850	Outcrop Type:		
SE Easting:	743249	Litter cover (%)		
SE Northing:	7513799	Logs	Twigs	Leaves
Topography:	flat	1	5	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	350	15
Disturbance:	high	Lower	80	20
Condition:	poor	Bare ground (%):	70	
Observations	the area has been used			
Species		Height (cm)	% AC	% DC
0.4 - (
?Asteraceae sp.		5	0.01	
Acacia synchronicia		5	0.01 5	
		5		
Acacia synchronicia		100	5	
Acacia synchronicia Acacia tetragonophylla			5 1	
Acacia synchronicia Acacia tetragonophylla Atriplex sp.		100	5 1 1	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella		100	5 1 1 0.01	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea		100	5 1 1 0.01 0.03	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens		100	5 1 1 0.01 0.03 0.01	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus		100 10 5	5 1 1 0.01 0.03 0.01 0.1	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa		100 10 5	5 1 1 0.01 0.03 0.01 0.1 0.03	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus		100 10 5 50	5 1 1 0.01 0.03 0.01 0.1 0.03 20	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus Eremophila youngii subsp.		100 10 5 5 200	5 1 1 0.01 0.03 0.01 0.1 0.03 20 6	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus Eremophila youngii subsp. Melaleuca xerophila Neptunia dimorphantha Poaceae sp.		100 10 5 50 200 300	5 1 1 0.01 0.03 0.01 0.1 0.03 20 6 1 0.01 0.1	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus Eremophila youngii subsp. Melaleuca xerophila Neptunia dimorphantha Poaceae sp. Scaevola spinescens	. lepidota	100 10 5 5 200 300	5 1 1 0.01 0.03 0.01 0.1 0.03 20 6 1	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus Eremophila youngii subsp. Melaleuca xerophila Neptunia dimorphantha Poaceae sp. Scaevola spinescens Senna artemisioides subs	. lepidota p. oligophylla	100 10 5 50 200 300	5 1 1 0.01 0.03 0.01 0.1 0.03 20 6 1 0.01 0.1 0.1 0.05	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus Eremophila youngii subsp. Melaleuca xerophila Neptunia dimorphantha Poaceae sp. Scaevola spinescens	. lepidota p. oligophylla	100 10 5 50 200 300	5 1 1 0.01 0.03 0.01 0.1 0.03 20 6 1 0.01 0.1 0.1 0.01	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus Eremophila youngii subsp. Melaleuca xerophila Neptunia dimorphantha Poaceae sp. Scaevola spinescens Senna artemisioides subs	. lepidota p. oligophylla	100 10 5 5 50 200 300 50 110	5 1 1 0.01 0.03 0.01 0.1 0.03 20 6 1 0.01 0.1 0.1 0.05	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus Eremophila youngii subsp. Melaleuca xerophila Neptunia dimorphantha Poaceae sp. Scaevola spinescens Senna artemisioides subsp. Senna glutinosa subsp. gl. Solanum lasiophyllum Solanum sturtianum	. lepidota p. oligophylla	100 10 5 50 200 300 50 110	5 1 1 0.01 0.03 0.01 0.1 0.03 20 6 1 0.01 0.1 0.1 0.1 0.05 0.3 0.03 0.03	
Acacia synchronicia Acacia tetragonophylla Atriplex sp. Blumea tenella Boerhavia coccinea Corchorus tridens Cucumis maderaspatanus Enchylaena tomentosa Enneapogon polyphyllus Eremophila youngii subsp. Melaleuca xerophila Neptunia dimorphantha Poaceae sp. Scaevola spinescens Senna artemisioides subs Senna glutinosa subsp. gl. Solanum lasiophyllum	. lepidota p. oligophylla	100 10 5 5 50 200 300 50 110	5 1 1 0.01 0.03 0.01 0.1 0.03 20 6 1 0.01 0.1 0.1 0.05 0.3	





Plot:	A019	Camera	brons camera	
Date:	2.4.11	Photo #	1091	1092
Date revisit:	N/A	camera revisit		
Initials:	BN / SC	Photo # revisit		
Initials revisit:		Soils	sand	
Zone:	50	Soil colour:	red	
Datum:	GDA94	Soil comments:	small salt scald in	n basin
NW Easting:	742533	Outcrop:		
NW Northing:	7513610	Outcrop Type:		
SE Easting:	742584	Litter cover (%)		
SE Northing:	7513561	Logs	Twigs	Leaves
Topography:	slightly undulated small dunes			3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	400	5
Disturbance:	high	Lower	70	20
Condition:	poor	Bare ground (%):	75	
Observations	the area has been used for			
Species		Height (cm)	% AC	% DC
Acacia sclerosperma su	ıbsp. <i>sclerosperma</i>	300	2	
Acacia synchronicia			0.5	
Acacia xiphophylla		300	3	
Atriplex sp.			1	
Enchylaena tomentosa			0.2	
Enneapogon polyphyllu	s		20	





Plot:	A020	Camera	Brons Camera	
Date:	2.4.11	Photo #	1093	1094
Date revisit:	N/A	Camera revisit		
Initials:	bn	Photo # revisit		
Initials revisit:		Soils	loamy sand	
Zone:	50	Soil colour:	red	
Datum:	gda94	Soil comments:	wind erosion	
NW Easting:	743003	Outcrop:		
NW Northing:	7512753	Outcrop Type:		
SE Easting:	743055	Litter cover (%)		
SE Northing:	7512703	Logs	Twigs	Leaves
Topography:	mostly flat with some 1	metre dunes	1	33
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	400	10
Disturbance:	high	Lower	50	25
Condition:	poor	Bare ground (%):	70	
Observations				_
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia			6	
Acacia aneura var ?		700	1	
Acacia sclerosperma su	bsp. <i>sclerosperma</i>		3	
Atriplex sp.			1	
Cleome viscosa			0.01	
Enneapogon polyphyllus			25	
Euphorbia tannensis sul	bsp. <i>eremophila</i>	20	0.01	
Grevillea striata		700		
Maireana pyramidata			0.5	





Plot:	A021	Camera	Brons Camera	
Date:	2/04/2011	Photo #	1095	1096
Date revisit:	N/A	Camera revisit		
Initials:	BN / SC	Photo # revisit		
Initials revisit:		Soils	Clay Loams	
Zone:	50	Soil colour:	red	
Datum:	GDA94	Soil comments:	sodic soils and	l surface gra
NW Easting:	742979	Outcrop:		
NW Northing:	7512277	Outcrop Type:		
SE Easting:	743029	Litter cover (%)		
SE Northing:	7512228	Logs	Twigs	Leaves
Topography:	flat		1	1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	500	5
Disturbance:	low	Lower	100	10
Condition:	very good	Bare ground (%):	90	
Observations				
Species		Height (cm)	% AC	% DC
?Eragrostis sp.		110	0.01	
Acacia ?synchronicia			0.03	
acacia tetragonophylla			0.1	
Acacia xiphophylla			5	
Atriplex ?amnicola		100	2	
Brachyachne prostrata		3	0.01	
Enchylaena tomentosa			0.3	
Enneapogon polyphyllus	S		2	
Enteropogon ramosus		30	0.03	
Eremophila longifolia		200	0.4	
Maireana pyramidata		110	8	
Marsilea hirsuta		5	0.02	
Portulaca oleracea			0.01	
Rhagodia eremaea		100	0.2	
Scaevola spinescens			0.5	
Sclerolaena cuneata			0.03	
Sporobolus australasicu	'S		0.03	
Trianthema triquetra		pr	0.01	





Plot:	A022	Camera	brons cam	era
Date:	3.4.11	Photo #	1097	1098
Date revisit:	N/A	Camera revisit		
Initials:	bn	Photo # revisit		
Initials revisit:		Soils	clay loamS	3
Zone:	50	Soil colour:	red	
Datum:	gda94	Soil comments:		
NW Easting:	743277	Outcrop:		
NW Northing:	7500466	Outcrop Type:		
SE Easting:	743327	Litter cover (%)		
SE Northing:	7500417	Logs	Twigs	Leaves
Topography:	flat	2	5	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	3
Time since fire (yrs):	>5	Mid	300	5
Disturbance:	moderate	Lower	80	15
Condition:	very good	Bare ground (%):	70	
Observations	many dead acacia			
Species		Height (cm)	% AC	% DC
Acacia arida			2	
Acacia pruinocarpa			1	
Acacia sclerosperma sul	osp. sclerosperma		2	
Acacia synchronicia			2	
Chrysopogon fallax			0.03	
Cleome viscosa			0.03	
Dactyloctenium radulans		10	0.03	
Dysphania sp.			0.01	
Enneapogon polyphyllus			3	
Eragrostis eriopoda			0.03	
Eriachne aristidea		15	0.01	
Euphorbia ?australis			0.01	
Euphorbia alsiniflora			0.03	
Gomphrena affinis subsp	•		0.01	
Hakea lorea subsp. lorea			0.03	
Indigofera sp. (juvenile)		4	0.01	
Perotis rara		10	0.01	
Portulaca oleracea Ptilotus exaltatus var. exaltatus			0.04	
		20	0.01	
Salsola australis		30	0.04	
Senna notabilis			0.2	
Solanum lasiophyllum Sporobolus australasicus	`		0.1	
Triodia epactia			0.3	
тпоша ераста			12	





Plot:	A023	Camera	brons camera	
Date:	3.4.11	Photo #	1099	1100
Date revisit:	N/A	Camera revisit		
Initials:	bn	Photo # revisit		
Initials revisit:		Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	surface grave	I
NW Easting:	743929	Outcrop:		
NW Northing:	7500637	Outcrop Type:		
SE Easting:	743979	Litter cover (%)		
SE Northing:	7500587	Logs	Twigs	Leaves
Topography:	flat			
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	100	0.2
Disturbance:	low	Lower	20	0.5
Condition:	excellent	Bare ground (%):	99	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia				
Acacia aneura		150	0.1	
Aristida contorta			0.1	
Boerhavia coccinea			0.05	
Cleome oxalidea		5	0.01	
Cleome viscosa			0.03	
Dactyloctenium radulans			0.01	
Eremophila cuneifolia		50		
Eriachne pulchella subsp. doi	minii	5	0.03	
Goodenia prostrata			5	
Heliotropium inexplicitum			0.01	
Portulaca ?cyclophylla			0.04	
Portulaca oleracea			0.01	
Salsola australis Senna notabilis			0.03	
Solanum lasiophyllum			0.03	
Sporobolus australasicus			0.1	
Tribulus astrocarpus			0.1	
าทอนเนร สรแบบสายนร			0.01	





Plot:	A024	Camera	brons came	era
Date:	3.4.11	Photo #	1101	1102
Date revisit:	N/A	Camera revisit		1.102
Initials:	bn	Photo # revisit		
Initials revisit:		Soils	clay loams	
Zone:	50	Soil colour:	red	
Datum:	gda94	Soil comments:		l depressions
NW Easting:	743059	Outcrop:	como cimar	Гаоргоссіоно
NW Northing:	7503310	Outcrop Type:		
SE Easting:	743109	Litter cover (%)		
SE Northing:	7503260	Logs	Twigs	Leaves
Topography:	flat	Logs	1 Wigs	2
Aspect:	nat	STRATA	Ht (cm)	% Cover
Slope:		Upper	Tit (Cili)	78 COVEI
Time since fire (yrs):	>5	Mid	300	3
Disturbance:	high	Lower	50	15
Condition:	poor to reasonable	Bare ground (%):		13
Observations	obvious grazing	pare ground (70).	00	
Species	ODVIOUS GIUZIIIG	Height (cm)	% AC	% DC
Abutilon malvifolium		10	0.01	
Acacia aneura		10	0.5	
Acacia synchronicia			3	
Aristida holathera var. h	olathera		0.1	
Boerhavia coccinea	Sidinord		0.05	
Cleome viscosa			0.6	
Convolvulus remotus		10	0.01	
Corchorus sidoides subs	sp. sidoides	10	0.02	
Cucumis maderaspatanu	•		0.03	
Dactyloctenium radulans			0.03	
Dichanthium sericeum s		30	0.05	
Dysphania sp.	<u>'</u>		0.02	
Enneapogon polyphyllus			1	
Enteropogon ramosus			0.2	
Eragrostis setifolia			10	
Fimbristylis microcarya		115	0.1	
Goodenia prostrata			0.03	
Gossypium australe			0.03	
Malvastrum americanum		25	0.01	
Oldenlandia crouchiana		2	0.01	
Phyllanthus maderaspate	ensis		0.03	
Portulaca oleracea			0.02	
Ptilotus gomphrenoides		5	0.01	
Ptilotus gomphrenoides		15	0.01	
Salsola australis			0.02	
Sclerolaena costata		10	0.02	
Senna artemisioides subsp. oligophylla			0.03	
Senna glutinosa subsp. chatelainiana		2		
Senna notabilis			0.3	
Sida fibulifera			0.03	
Solanum lasiophyllum			0.3	
Sporobolus australasicus	3		0.2	
Streptoglossa sp.		40	0.02	
Tribulus astrocarpus			0.02	





Date 3.4.11	Plot:	A025	Camera	brons camera	<u></u> а	
Initials:	Date:	3.4.11	Photo #	1104	1105	
Initials revisit: Soil Clay loams	Date revisit:	N/A	Camera revisit			
Zone: 50 Soil colour: brown Datum: GDA94 Soil comments: surface gravel NW Easting: 743307 Outcrop: NW Northing: 7504109 Outcrop Type: SE Easting: 743357 Litter cover (%) SE Northing: 7504058 Logs Twigs Leaves Topography: flat 0.5 0.5 0.5 Aspect: STRATA Ht (cm) % Cover Slope: Upper Time since fire (yrs): >5 Mid 300 3 Aspections Species Height (cm) % AC % DC Observations Species Height (cm) % AC % DC Acacia synchronicia Acacia synchronicia 2 Acacia synchronicia 2 Acacia synchronicia 0.1 Cleome viscosa 0.03 Enneapogon polyphyllus 20 0.1 Gomphrena affinis subsp. pilbarensis 0.01 Ceodenia prostrata Heliotropium inexplicitum pr 0.01 Lepidium pholidogynum pr 0.1 Portulaca oleracea 0.01 Salsola australis Sclerolaena cuneata 0.01 Sclerolaena cuneata Sclerolaena cuneata Sclerolaena lanicuspis Senna ?sp. Meekatharra (E. Bailey 1-26) 80 0.1 Solanum lasiophyllum 0.04 Sporobolus australasicus 0.01 Sporobolus australasicu	Initials:	BN / SC	Photo # revisit			
Datum: GDA94 Soil comments: Surface grave	Initials revisit:		Soil	clay loams		
NW Easting: 743307	Zone:	50	Soil colour:	brown		
NW Northing: 7504109	Datum:	GDA94	Soil comments:	surface grave	el	
SE Easting: 743357 Litter cover (%) SE Northing: 7504058 Logs Twigs Leaves Topography: flat 0.5 0.5 0.5 Aspect: STRATA Ht (cm) % Cover Slope: Upper Upper Time since fire (yrs): 5 Mid 300 3 Disturbance: low Lower 20 2 Condition: pretty good Bare ground (%): 97 Observations Bare ground (%): 97 Observations Bare ground (%): 97 Observations Protuck 2 Acacia synchronicia 2 Acacia synchronicia 2 Acacia synchronicia 0.1 0.1 Company (cm) 4 Company (cm) Company (cm) </th <th>NW Easting:</th> <th>743307</th> <th>Outcrop:</th> <th></th> <th></th>	NW Easting:	743307	Outcrop:			
SE Northing: 7504058 Logs Twigs Leaves Topography: flat 0.5 0.5 Aspect: STRATA Ht (cm) % Cover Slope: Upper Upper Time since fire (yrs): >5 Mid 300 3 Disturbance: low Lower 20 2 Condition: pretty good Bare ground (%): 97 Observations Species Height (cm) % AC % DC Acacia synchronicia 2 Acacia synchronicia 1 Acacia synchronicia 1 Acacia synchronicia 0.1 Complex constructs 0.01 Complex constructs 0.03 Enneapogon polyphyllus 2 0.01 Complex constructs 0.01 Complex c	NW Northing:	7504109	Outcrop Type:			
Topography: flat 0.5 0.5 Aspect: STRATA Ht (cm) % Cover Slope: Upper Time since fire (yrs): >5 Mid 300 3 Disturbance: Iow Lower 20 2 Condition: pretty good Bare ground (%): 97 Observations Acacia synchronicia 2 Acacia synchronicia 2 Acacia synchronicia 2 Acacia synchronicia 2 Acacia synchronicia 1 Acacia synchronicia	SE Easting:	743357	Litter cover (%)			
STRATA	SE Northing:	7504058	Logs	Twigs	Leaves	
Slope: Upper	Topography:	flat		0.5	0.5	
Time since fire (yrs): >5 Mid 300 3 Disturbance: low Lower 20 2 Condition: pretty good Bare ground (%): 97 Observations Species Height (cm) % AC % DC Acacia synchronicia 2 Acacia xiphophylla 1 Atriplex ?amnicola 0.1 Cleome viscosa 0.03 Enneapogon polyphyllus 20 0.1 Goodenia prostrata 1 Heliotropium inexplicitum 1 Heliotropium inexplicitum pr 0.01 Lepidium pholidogynum pr 0.01 Portulaca oleracea 0.01 Prilotus exaltatus var. exaltatus 0.01 Salsola australis 0.01 Sclerolaena costata 0.01 Sclerolaena costata 0.01 Sclerolaena lanicuspis 5 0.01 Sclerolaena lanicuspis 5 0.01 Sclerolaena lanicuspis 5 0.01 <td row<="" th=""><th>Aspect:</th><th></th><th>STRATA</th><th>Ht (cm)</th><th>% Cover</th></td>	<th>Aspect:</th> <th></th> <th>STRATA</th> <th>Ht (cm)</th> <th>% Cover</th>	Aspect:		STRATA	Ht (cm)	% Cover
Disturbance: low Lower 20 2 Condition: pretty good Bare ground (%): 97 Observations	Slope:		Upper			
Condition: pretty good Bare ground (%): 97 Observations	Time since fire (yrs):	>5	Mid	300	3	
Observations Height (cm) % AC % DC Acacia synchronicia 2 Acacia synchronicia 1 Acacia xiphophylla 1 1 Atriplex ?amnicola 0.1 0.1 Cleome viscosa 0.03 0.03 Enneapogon polyphyllus 20 0.1 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 1 1 Heliotropium inexplicitum pr 0.01 Lepidium pholidogynum pr 0.1 Portulaca oleracea 0.01 0.01 Prillotus exaltatus var. exaltatus 0.01 Salsola australis 0.1 0.01 Sclerolaena costata 0.01 0.01 Sclerolaena cuneata 0.01 0.01 Sclerolaena lanicuspis 5 0.01 Senna ?sp. Meekatharra (E. Bailey 1-26) 80 0.1 Solanum lasiophyllum 0.04 0.04 Sporobolus australasicus 0.01	Disturbance:	low	Lower	20	2	
Species Height (cm) % AC % DC Acacia synchronicia 2 Acacia xiphophylla 1 1 Atriplex ?amnicola 0.1 0.1 Cleome viscosa 0.03 0.01 Enneapogon polyphyllus 20 0.1 Gomphrena affinis subsp. pilbarensis 0.01 0.01 Goodenia prostrata 1 Heliotropium inexplicitum pr 0.01 Lepidium pholidogynum pr 0.1 0.01 Portulaca oleracea 0.01 0.01 Ptilotus exaltatus var. exaltatus 0.01 0.01 Salsola australis 0.01 0.01 Sclerolaena costata 0.01 0.01 Sclerolaena lanicuspis 5 0.01 Senna ?sp. Meekatharra (E. Bailey 1-26) 80 0.1 Solanum lasiophyllum 0.04 Sporobolus australasicus 0.01	Condition:	pretty good	Bare ground (%):	97		
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Sporobolus australasicus 0.01	· · · · · · · · · · · · · · · · · · ·			+		
	Tribulus astrocarpus	<u> </u>		+		





Date Sale Sale	Plot:	A026	Camera	Bronwyn	
Date revisit: N/A Initials: BN / SC Photo # revisit Soils Clay loams					1107
Initials: Initials revisit: Soils Clay loams				1100	1107
Initials revisit: Soils Clay loams					
Zone: 50 Soil colour: red brown Datum: GDA94 Soil comments: crab hole clays NW Easting: 743193 Outcrop:		BIN / SC		-11	
Datum: GDA94 Soil comments: crab hole clays NW Easting: 743193 Outcrop: Outcrop: NW Northing: 7505887 Outcrop Type: SE Easting: 743244 Litter cover (%) SE Northing: 7505846 Logs Twigs Leaves Topography: flat 1 3 Aspect: STRATA Ht (cm) % Cover Slope: Upper 800 2 Time since fire (yrs): >5 Mid 300 5 Disturbance: moderate Lower 100 220 Condition: very good Bare ground (%): 70 Observations Properties Height (cm) % AC % DC Acacia aneura 7 Acacia exprehronicia 0.3 Acacia exprehronicia 0.5 C Chrysopogon fallax 100 15 C Chrysopogon fallax 100 0.1 C C Chrysopogon fallax 100 0.1 C C				_	
NW Easting: 743193 Outcrop:					
NW Northing: 7505897 Outcrop Type:				crab hole	clays
SE Easting: 743244 Litter cover (%) SE Northing: 7505846 Logs Twigs Leaves Topography: flat 1 3 Aspect: STRATA Ht (cm) % Cover Slope: Upper 800 2 Time since fire (yrs): >5 Mid 300 5 Disturbance: moderate Lower 100 220 Condition: very good Bare ground (%): 70 Observations Species Height (cm) % AC % DC Acacia aneura 7 Acacia synchronicia 0.3 Acacia synchronicia 0.3 Acacia synchronicia 0.5 C Acacia synchronicia 100 15 Chrysopogon fallax 100 15 C Chrysopogon fallax 100 15 C Chrysopogon fallax 100 0.1 D Chrysopogon fallax 100 0.1 D C Chrysopogon fallax 100 0.1					
SE Northing: 7505846 Logs Twigs Leaves Topography: flat 1 3 Aspect: STRATA Ht (cm) % Cover Slope: Upper 800 2 Time since fire (yrs): >5 Mild 300 5 Disturbance: moderate Lower 100 220 Condition: very good Bare ground (%): 70 Observations Total Condition: 70 Pocada Synchronicia 0.3 Acacia aneura 7 Acacia synchronicia 0.3 Acacia synchronicia 0.3 Acacia synchronicia 0.3 Acacia synchronicia 0.5 DC Acacia synchronicia 0.3 Acacia synchronicia 0.3 Acacia stargonic aneura 0.5 DC Acacia synchronicia 0.3 Acacia stargonic aneura 0.0 DC DC Acacia synchronicia 0.1 D.1 DC DC DC Acacia synchronicia 0.1 0.1 DC DC DC Acacia synchronicia 0.1		7505897			
Topography: flat		743244	Litter cover (%)		
STRATA	SE Northing:	7505846	Logs	Twigs	Leaves
Slope: Upper 800 2	Topography:	flat		1	3
Time since fire (yrs): >5 Mid 300 5 Disturbance: moderate Lower 100 220 Condition: very good Bare ground (%): 70 Observations: Species Height (cm) % AC % DC Acacia aneura 7 Acacia synchronicia 0.3 Acacia synchronicia 0.3 Acacia synchronicia 0.5 Chrysopogon fallax 100 15 Chrysopogon fallax 100 0.1 Desponsation for a contract of a contra	Aspect:		STRATA	Ht (cm)	% Cover
Disturbance: moderate Lower 100 220 Condition: very good Bare ground (%): 70 Observations Figure 1 Species Height (cm) % AC % DC Acacia aneura 7 Acacia synchronicia 0.3 Acacia synchronicia 0.5 Acacia tetragonophylla 0.1 D.1 D.2 D.1 D.2 D.2 <td>Slope:</td> <td></td> <td>Upper</td> <td>800</td> <td>2</td>	Slope:		Upper	800	2
Name	Time since fire (yrs):	>5	Mid	300	5
Species Height (cm) % AC % DC % Accia aneura 7 7 7	Disturbance:	moderate	Lower	100	220
Species Height (cm) % AC % DC Acacia aneura 7 7 Acacia synchronicia 0.3 0.5 Acacia tetragonophylla 0.5 0.5 Chrysopogon fallax 100 15 Chrysopogon fallax 100 0.1 Cleome viscosa 0.1 0.1 Dactyloctenium radulans 0.1 0.1 Dysphania sp. 1 1 Enneapogon polyphyllus 3 3 Eragrostis setifolia 5 5 Eremophila lanceolata 50 1 Eriachne benthamii 30 0.01 Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.01 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3	Condition:	very good	Bare ground (%):	70	
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Chrysopogon fallax 100 0.1 Cleome viscosa 0.1 0.1 Dactyloctenium radulans 0.1 0.1 Dysphania sp. 1 1 Enneapogon polyphyllus 3 3 Eragrostis setifolia 5 5 Eremophila lanceolata 50 1 Eriachne benthamii 30 0.01 Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Senna artemisioides subsp. oligophylla 0.1 0.1 Sida fibulifera 0.1 0.03 Sporobolus australasicus 0.1 0.02			100	15	
Cleome viscosa 0.1 Dactyloctenium radulans 0.1 Dysphania sp. 1 Enneapogon polyphyllus 3 Eragrostis setifolia 5 Eremophila lanceolata 50 Eriachne benthamii 30 Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 Rhagodia eremaea 100 Rhynchosia minima 0.1 Salsola australis 3 Senna artemisioides subsp. oligophylla 0.1 Sida fibulifera 0.1 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02			100	0.1	
Dysphania sp. 1 Enneapogon polyphyllus 3 Eragrostis setifolia 5 Eremophila lanceolata 50 1 Eriachne benthamii 30 0.01 Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Senna artemisioides subsp. oligophylla 0.1 0.03 Sporobolus australasicus 0.1 0.03 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02 Yakirra australiensis 0.02 0.02				0.1	
Dysphania sp. 1 Enneapogon polyphyllus 3 Eragrostis setifolia 5 Eremophila lanceolata 50 1 Eriachne benthamii 30 0.01 Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Senna artemisioides subsp. oligophylla 0.1 0.03 Sporobolus australasicus 0.1 0.03 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02 Yakirra australiensis 0.02 0.02	Dactyloctenium radulans			0.1	
Enneapogon polyphyllus 3 Eragrostis setifolia 5 Eremophila lanceolata 50 Eriachne benthamii 30 Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 Rhagodia eremaea 100 Rhynchosia minima 0.1 Salsola australis 3 Senna artemisioides subsp. oligophylla 0.1 Sida fibulifera 0.1 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02				1	
Eragrostis setifolia 5 Eremophila lanceolata 50 1 Eriachne benthamii 30 0.01 Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Senna artemisioides subsp. oligophylla 0.1 0.1 Sida fibulifera 0.1 0.03 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02 Yakirra australiensis 0.02				3	
Eremophila lanceolata 50 1 Eriachne benthamii 30 0.01 Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Sida fibulifera 0.1 0.3 Solanum lasiophyllum 0.03 0.3 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02				_	
Euphorbia tannensis subsp. eremophila 0.01 Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Senna artemisioides subsp. oligophylla 0.1 0.03 Sporobolus australasicus 0.1 0.03 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02 Yakirra australiensis 0.02	Eremophila lanceolata		50	1	
Gomphrena affinis subsp. pilbarensis 0.03 Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 Rhagodia eremaea 100 Rhynchosia minima 0.1 Salsola australis 3 Senna artemisioides subsp. oligophylla 0.1 Sida fibulifera 0.1 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02	Eriachne benthamii		30	0.01	
Goodenia prostrata 0.02 Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Sida fibulifera 0.1 0.03 Solanum lasiophyllum 0.03 0.03 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02 Yakirra australiensis 0.02 0.02	Euphorbia tannensis sub	sp. <i>eremophila</i>		0.01	
Gossypium australe 0.1 Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.3 Salsola australis 3 0.1 Senna artemisioides subsp. oligophylla 0.1 0.1 Sida fibulifera 0.1 0.03 Sporobolus australasicus 0.1 0.03 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02	Gomphrena affinis subsp	. pilbarensis		0.03	
Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Senna artemisioides subsp. oligophylla 0.1 0.1 Sida fibulifera 0.1 0.03 Solanum lasiophyllum 0.03 0.03 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02 Streptoglossa sp. 0.02 0.02	Goodenia prostrata			0.02	
Malvastrum americanum 0.01 Operculina aequisepala 0.1 Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 2 Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 0.1 Salsola australis 3 0.1 Senna artemisioides subsp. oligophylla 0.1 0.1 Sida fibulifera 0.1 0.03 Solanum lasiophyllum 0.03 0.03 Sporobolus australasicus 0.1 0.02 Yakirra australiensis 0.1 0.02 Streptoglossa sp. 0.02 0.02	Gossypium australe			0.1	
Phyllanthus maderaspatensis0.01Ptilotus obovatus602Rhagodia eremaea1000.3Rhynchosia minima0.1Salsola australis3Senna artemisioides subsp. oligophylla0.1Sida fibulifera0.1Solanum lasiophyllum0.03Sporobolus australasicus0.1Streptoglossa sp.0.02Yakirra australiensis0.1Streptoglossa sp.0.02				0.01	
Phyllanthus maderaspatensis 0.01 Ptilotus obovatus 60 Rhagodia eremaea 100 Rhynchosia minima 0.1 Salsola australis 3 Senna artemisioides subsp. oligophylla 0.1 Sida fibulifera 0.1 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02	Operculina aequisepala			0.1	
Rhagodia eremaea 100 0.3 Rhynchosia minima 0.1 Salsola australis 3 Senna artemisioides subsp. oligophylla 0.1 Sida fibulifera 0.1 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02		ensis		0.01	
Rhynchosia minima 0.1 Salsola australis 3 Senna artemisioides subsp. oligophylla 0.1 Sida fibulifera 0.1 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02	Ptilotus obovatus		60	2	
Rhynchosia minima 0.1 Salsola australis 3 Senna artemisioides subsp. oligophylla 0.1 Sida fibulifera 0.1 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02			100	0.3	
Senna artemisioides subsp. oligophylla0.1Sida fibulifera0.1Solanum lasiophyllum0.03Sporobolus australasicus0.1Streptoglossa sp.0.02Yakirra australiensis0.1Streptoglossa sp.0.02				0.1	
Sida fibulifera 0.1 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02	Salsola australis			3	
Solanum lasiophyllum 0.03 Sporobolus australasicus 0.1 Streptoglossa sp. 0.02 Yakirra australiensis 0.1 Streptoglossa sp. 0.02	Senna artemisioides subsp. oligophylla			0.1	
Sporobolus australasicus0.1Streptoglossa sp.0.02Yakirra australiensis0.1Streptoglossa sp.0.02	Sida fibulifera			0.1	
Streptoglossa sp.0.02Yakirra australiensis0.1Streptoglossa sp.0.02	Solanum lasiophyllum			0.03	
Yakirra australiensis0.1Streptoglossa sp.0.02	Sporobolus australasicus			0.1	
Streptoglossa sp. 0.02	Streptoglossa sp.			0.02	
	Yakirra australiensis	Yakirra australiensis		0.1	
Yakirra australiensis 0.1	Streptoglossa sp.			0.02	
	Yakirra australiensis			0.1	





Plot:	A028	Camera	brone come	ro.
Date:	4/04/2011		brons came 1111	1112
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	BN / SC	Photo # revisit		
			lb0128	100129
Initials revisit:	SC / LB	Soils	loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	744079	Outcrop:		
NW Northing:	7499339	Outcrop Type:		
SE Easting:	744130	Litter cover (%)		
SE Northing:	7499289	Logs	Twigs	Leaves
Topography:	flat	1	4	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	10
Time since fire (yrs):	>5	Mid	300	5
Disturbance:	low	Lower	50	4
Condition:	excellent	Bare ground (%):	90	
Observations				
Species		Height (cm)	% AC	% DC
Acacia inaequilatera			0.3	
Acacia incurvaneura		700	15	
Acacia pruinocarpa			0.5	
Acacia synchronicia			1	
Acacia tetragonophylla			0.03	
Atriplex ?amnicola			0.05	
Boerhavia coccinea			0.1	
Chrysopogon fallax			0.05	
Cleome viscosa			0.03	
Corchorus tridens			0.01	
Cucumis maderaspatanus			0.03	
Dactyloctenium radulans			0.01	
Dichanthium sericeum sub	sp. <i>humiliu</i> s		0.01	
Enneapogon polyphyllus			0.1	
Enneapogon polyphyllus			0.05	
Eragrostis setifolia			0.03	
Euphorbia ?australis			0.01	
Gomphrena affinis subsp.	pilbarensis		0.01	
Goodenia prostrata			0.01	
Ipomoea muelleri			0.05	
Perotis rara			0.02	
Polycarpaea corymbosa		15	0.01	
Portulaca oleracea			0.01	
Psydrax latifolia		50	0.1	
Rhagodia eremaea			0.03	
Salsola australis			0.03	
Sclerolaena costata			0.01	
Senna artemisioides subsp. oligophylla			0.05	
Senna notabilis			0.1	
Solanum lasiophyllum			0.03	
Sporobolus australasicus			0.01	
Triodia epactia			0.05	





Plot:	A029	Camera	brons cam	era
Date:	4.4.11	Photo #	1113	1114
Date revisit:	1/07/2011	Camera revisit	Lisa Banni	
Initials:	bn	Photo # revisit	lb0126	lb0127
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		<u>.</u>
NW Easting:	744229	Outcrop:		
NW Northing:	7498700	Outcrop Type:		<u>.</u>
SE Easting:	744278	Litter cover (%)		
SE Northing:	7498652	Logs	Twigs	Leaves
Topography:	flat	3	10	15
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	35
Time since fire (yrs):	>5	Mid	300	8
Disturbance:	low	Lower	500	3
Condition:	excellent	Bare ground (%):	40	
Observations		1 5 2 2 (13)		1
Species	l	Height (cm)	% AC	% DC
Abutilon lepidum		20	0.01	
Acacia aneura			20	
Acacia aneura			5	
Acacia synchronicia			1	
Acacia tetragonophylla			0.3	
Bulbostylis barbata			0.01	
Cheilanthes sieberi subsp. s.	ieberi	10	0.01	
Chrysopogon fallax			0.3	
Corchorus tridens			0.01	
Cucumis maderaspatanus			0.05	
Dodonaea petiolaris		60	0.03	
Eragrostis setifolia			0.05	
Eremophila forrestii ?subsp.	forrestii	60	0.05	
Eremophila lanceolata			0.1	
Evolvulus alsinoides var. villo	osicalyx	15	0.02	ļ
Hakea lorea subsp. lorea			0.3	ļ
Malvastrum americanum			0.01	-
Perotis rara			0.01	-
Polycarpaea corymbosa			0.01	
Portulaca oleracea			0.01	-
Psydrax latifolia			1	
Phagadia cromaca		1.4	0.1	1
Rhagodia eremaea Senna artemisioides subsp. oligophylla		1.4	0.03	
Senna artemisioides subsp. oligophylla ? x helmsii			0.1	-
Senna glutinosa subsp. x luerssenii		200	0.1	
Sporobolus australasicus		200	0.1	1
Streptoglossa sp.			0.01	1
on optogrossa sp.			JU.U I	





Plot:	A030	Camera	brons came	era
Date:	4.4.11	Photo #	1115	1116
Date revisit:	1/07/2011	Camera revisit	N/A	
Initials:	BN / SC	Photo # revisit	N/A	
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	743216	Outcrop:		
NW Northing:	7499001	Outcrop Type:		
SE Easting:	743267	Litter cover (%)		
SE Northing:	7498950	Logs	Twigs	Leaves
Topography:	flat		2	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	100	5
Disturbance:	moderate	Lower	50	15
Condition:	very good	Bare ground (%):	80	
Observations	adjacent to road			
Species		Height (cm)	% AC	% DC
Acacia dictyophleba			5	
Acacia pachyacra			0.3	
Acacia synchronicia			0.1	
Cenchrus ciliaris			0.01	
Cleome viscosa			0.01	
Enneapogon polyphyllus			1	
Enneapogon polyphyllus			0.01	
Eragrostis eriopoda			0.03	
Eragrostis setifolia			0.01	
Gomphrena affinis subsp.	pilbarensis		0.01	
Hakea lorea subsp. lorea			0.3	
Salsola australis			0.01	
Sclerolaena cornishiana			0.01	
Senna artemisioides subsp. oligophylla			0.05	
Senna artemisioides subs	p. oligophylla x helmsii		0.01	
Senna notabilis			0.01	
Solanum lasiophyllum			0.03	
Sporobolus australasicus			0.01	
Triodia epactia			15	





Plot:	A031	Camera	brons came	era
Date:	4/04/2011	Photo #	1117	1118
Date revisit:	1/07/2011	Camera revisit	Lisa Bannis	ster
Initials:	BN / SC	Photo # revisit	lb0130	lb0131
Initials revisit: SC / LB		Soils	loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	743493	Outcrop:		
NW Northing:	7499286	Outcrop Type:		
SE Easting:	743544	Litter cover (%)		
SE Northing:	7499236	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	3
Time since fire (yrs):	3 to 5	Mid	150	0.5
Disturbance:	high	Lower	50	25
Condition:	poor	Bare ground (%):	70	
Observations	impacted by			
Species		Height (cm)	% AC	% DC
Acacia dictyophleba			0.03	Х
Acacia pachyacra			0.3	х
Acacia pruinocarpa			2	Х
Acacia sclerosperma subsp. se	clerosperma		0.05	Х
Cenchrus ciliaris			20	
Corymbia hamersleyana			0.7	Х
Eragrostis eriopoda			0.01	
Senna artemisioides subsp. of	igophylla		0.02	Х
Senna notabilis			0.01	
Sporobolus australasicus			0.01	
Triodia epactia			5	Х





Plot:	Plot: A032		brons cam	era
Date:	4.4.11	Photo #	1119	1120
Date revisit:	1/07/2011	Camera revisit	Lisa Banni	ster
Initials:	bn	Photo # revisit	b0139/	b01390
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	743411	Outcrop:		
NW Northing:	7498091	Outcrop Type:		1
SE Easting:	743461	Litter cover (%)		
SE Northing:	7498041	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	350	5
Disturbance:	high	Lower	50	25
Condition: poor		Bare ground (%):	70	
Observations heavy grazing				
Species	Species		% AC	% DC
Acacia dictyophleba			5	
Acacia pruinocarpa			0.4	
Boerhavia coccinea			0.01	
Cenchrus ciliaris			20	
Cleome viscosa			0.011	
Corchorus tridens			0.01	
Eragrostis eriopoda			0.03	
Eremophila longifolia		50	0.01	
Gomphrena affinis subsp. pilba	rensis		0.01	
Hakea lorea subsp. lorea			0.3	
_ , ,	Indigofera monophylla		0.02	
Malvastrum americanum			0.01	
Perotis rara			0.01	
	Polycarpaea corymbosa		0.01	
Portulaca oleracea			0.01	
Salsola australis			0.02	
Senna artemisioides subsp. olig	_Ј орпуна		0.01	
Senna notabilis			0.03	
Sporobolus australasicus			5	
Triodia epactia			ပ	l



Plot: A033		Camera	brons came	era
Date:	4.4.11	Photo #	1120 1121	
Date revisit:	1/07/2011	Camera revisit	Lisa Bannis	
Initials:	bn	Photo # revisit	lb0141 lb0142	
Initials revisit:	SC / LB	Soils	clay loams	100112
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	red blowii	
NW Easting:		Outcrop:		
NW Northing:	7497366	Outcrop Type:		
SE Easting:	743394	Litter cover (%)		
SE Northing:	7497317	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:	_	Upper	700	1
Time since fire (yrs):	>5	Mid	300	5
Disturbance:	lower	Lower	70	30
Condition:	very good	Bare ground (%):	60	
Observations			1	
Species		Height (cm)	% AC	% DC
Abutilon lepidum		40	0.02	
Acacia aneura			0.2	
Acacia dictyophleba			1	
Acacia pachyacra			0.3	
Acacia pruinocarpa			0.1	
Acacia synchronicia			1	
Acacia tetragonophylla			0.03	
Cenchrus ciliaris			1	
Cleome viscosa			0.01	
Corchorus tridens			0.01	
Corymbia hamersleyana			1	
Cucumis maderaspatanus			0.03	
Dactyloctenium radulans			0.01	
Enneapogon polyphyllus			0.01	
Eragrostis eriopoda			0.01	
Eremophila longifolia			0.1	
Eriachne aristidea			0.01	
Euphorbia alsiniflora			0.01	
Gomphrena affinis subsp. pilbarensis			0.01	
Gossypium australe			0.01	
Hakea lorea subsp. lorea			0.1	
Indigofera sp. (juvenile)			0.01	
Poaceae sp.			0.01	
Senna artemisioides subsp. oligo	phylla ? x helmsii	130	0.05	
Senna notabilis			0.05	
Trianthema pilosa			0.01	
Tribulus occidentalis			0.03	
Triodia epactia			25	
Yakirra australiensis			0.01	





Plot:	A034	Camera	brons came	era
Date:	5.4.11	Photo #	1122	1124
Date revisit:	1/07/2011	Camera revisit	Lisa Bannis	ster
Initials:	BN / SC	Photo # revisit	lb0153	lb0154
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	743177	Outcrop:		
NW Northing:	7495220	Outcrop Type:		
SE Easting:	743230	Litter cover (%)		
SE Northing:	7495170	Logs	Twigs	Leaves
Topography:	flat			1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	300	3
Disturbance:	low	Lower	100	25
Condition:	excellent	Bare ground (%):	70	
Observations				
Species		Height (cm)	% AC	% DC
Acacia aneura			0.05	
Acacia dictyophleba			1	
Acacia pachyacra			0.3	
Acacia sclerosperma subsp. sclerosperma			0.5	
Acacia synchronicia			0.4	
Chrysopogon fallax			0.3	
Hakea lorea subsp. lorea			0.5	
Rhynchosia minima			0.01	
Senna glutinosa subsp. pruinosa	9		0.1	
Triodia epactia			25	





Date	Plot:	Plot: A035		brons camera	
Initials:	Date:	5.4.11	Camera Photo #	1125 1126	
Initials revisit:	Date revisit:	1/07/2011	Camera revisit		
Zone: 50 Soil colour: red brown orange	Initials:	BN / SC	Photo # revisit	b0149/	b01490
Zone: 50 Soil colour: red brown orange	Initials revisit:	SC / LB	Soils	clay loams	
NW Easting: 744443 Outcrop:	Zone:	50	Soil colour:		orange
NW Northing: 7496666 Outcrop Type: SE Easting: 744493 Litter cover (%) SE Northing: 7496616 Logs Twigs Leaves Topography: flat 1 Aspect: STRATA Ht (cm) % Cover Slope: Upper Time since fire (yrs): >5 Mid 400 2 Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations	Datum:	GDA94	Soil comments:		
SE Easting: 744493 Litter cover (%) SE Northing: 7496616 Logs Twigs Leaves Topography: flat 1 Aspect: STRATA Ht (cm) % Cover Slope: Upper Time since fire (yrs): >5 Mid 400 2 Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations Bare ground (%): 96 Observations Height (cm) % AC % DC Acacia aneura 0.5 Acacia aneura 0.5 Acacia aneura 0.1 Arcacia aneura 0.0 DC Acacia aneura 0.0 DC Acacia aneura 0.1 Arcacia aneura 0.0 DC Acacia aneura 0.0 Acacia aneura 0.0 DC Acacia aneura 0.0 Acacia pruincearpa 2 Acacia aneura 0.0 Acacia aneura 0.0 Acacia aneura 0.0 Acacia aneura 0.0 0.0 Cleome oxalidea	NW Easting:	744443	Outcrop:		
SE Northing: 7496616 Logs Twigs Leaves Topography: flat 1	NW Northing:	7496666	Outcrop Type:		•
Topography: flat 1 Aspect: STRATA Ht (cm) % Cover Slope: Upper Time since fire (yrs): >5 Mid 400 2 Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations Bare ground (%): 96 Observations % AC % DC Acacia aneura 0.5 Acacia synchronicia 0.1 Acacia pruinocarpa 2 Acacia synchronicia 0.1 % AC % DC <td>SE Easting:</td> <td>744493</td> <td>Litter cover (%)</td> <td></td> <td></td>	SE Easting:	744493	Litter cover (%)		
STRATA	SE Northing:	7496616	Logs	Twigs	Leaves
Upper	Topography:	flat		1	
Time since fire (yrs): >5 Mid 400 2 Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations Height (cm) % AC % DC Acacia aneura 0.5 Acacia pruinocarpa 2 Acacia synchronicia 0.1 Acacia synchronicia 0.1 Acacia synchronicia 0.1 Acacia synchronicia 0.01 0.03 Beart synchronicia 0.01 Acacia synchronicia 0.01 0.03 Beart synchronicia 0.01 0.03 Beart synchronicia 0.01 0.03 Beart synchronicia 0.01 0.02 Cereme viscosa 0.02 0.03 0.02 0.03 0.02 0.01	Aspect:		STRATA	Ht (cm)	% Cover
Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations Height (cm) % AC % DC Acacia aneura 0.5 Acacia pruinocarpa 2 Acacia synchronicia 0.1 Aristida contorta 0.03 Boerhavia coccinea 0.1 Cleome oxalidea 0.02 Cleome oxalidea 0.02 Cleome viscosa 0.03 Dactyloctenium radulans 0.01 Doughania rhadinostachya 0.01 Dysphania rhadinostachya 0.01 Doughania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 0.01 Gomphrena affinis subsp. pilbarensis 0.01 0.01 Goodenia prostrata 0.01 0.01 0.01 Height (cm) 0.01 0.01 0.01 Height (cm) 0.01 0.01 0.01 Goodenia prostrata 0.01 0.01 0.01 Height (cm) 0.02 0.03 0.02 Salsola aus	Slope:		Upper		
Condition: excellent Bare ground (%): 96 Observations Feeter Height (cm) % AC % DC Acacia aneura 0.5 Acacia pruinocarpa 2 Acacia synchronicia 0.1 Aristida contorta 0.03 Boerhavia coccinea 0.1 Cleome oxalidea 0.02 Cleome oxalidea 0.02 0.03 Dactyloctenium radulans 0.01 Dysphania rhadinostachya 0.01 0.01 Dysphania sp. 0.01 0.01 Eriachne pulchella subsp. pulchella 0.01 <t< td=""><td>Time since fire (yrs):</td><td>>5</td><td>Mid</td><td>400</td><td>2</td></t<>	Time since fire (yrs):	>5	Mid	400	2
Observations Height (cm) % AC % DC Acacia aneura 0.5 Acacia pruinocarpa 2 Acacia synchronicia 0.1 Aristida contorta 0.03 Boerhavia coccinea 0.1 Cleome oxalidea 0.02 Cleome viscosa 0.03 Dactyloctenium radulans 0.01 Dysphania rhadinostachya 0.01 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 0.01 Gomphrena affinis subsp. pilbarensis 0.01 0.01 Goodenia prostrata 0.01 0.01 Heliotropium inexplicitum 0.01 0.01 Portulaca oleracea 1 0.02 Salsola australis 0.03 0.02 Salsola australis 0.05 0.05 Sida platycalyx 0.03 0.03 Solanum lasiophyllum 0.02 Sporobolus australasicus 0.02	Disturbance:	low	Lower	50	3
Species Height (cm) % AC % DC Acacia aneura 0.5 0.5 Acacia pruinocarpa 2 0.1 Acacia synchronicia 0.1 0.03 Aristida contorta 0.03 0.01 Boerhavia coccinea 0.1 0.02 Cleome oxalidea 0.02 0.02 Cleome viscosa 0.03 0.01 Dactyloctenium radulans 0.01 0.01 Dysphania rhadinostachya 0.01 0.01 Dysphania rhadinostachya 0.01 0.01 Eriachne pulchella subsp. pulchella 0.01 0.01 Gomphrena affinis subsp. pilbarensis 0.01 0.01 Goodenia prostrata 0.01 0.01 Heliotropium inexplicitum 0.01 0.01 Portulaca oleracea 1 0.02 Salsola australis 0.03 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 0.05 Sida platycalyx 0.03 Sporobolus aust	Condition:	excellent	Bare ground (%):	96	
Acacia aneura 0.5 Acacia pruinocarpa 2 Acacia synchronicia 0.1 Aristida contorta 0.03 Boerhavia coccinea 0.1 Cleome oxalidea 0.02 Cleome viscosa 0.03 Dactyloctenium radulans 0.01 Dysphania rhadinostachya 0.01 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 1 Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 Sida platycalyx 0.03 Sporobolus australasicus 0.02	Observations				
Acacia pruinocarpa 2 Acacia synchronicia 0.1 Aristida contorta 0.03 Boerhavia coccinea 0.1 Cleome oxalidea 0.02 Cleome viscosa 0.03 Dactyloctenium radulans 0.01 Dysphania rhadinostachya 0.01 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 1 Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 Sida platycalyx 0.03 Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02	Species		Height (cm)		% DC
Acacia synchronicia 0.1 Aristida contorta 0.03 Boerhavia coccinea 0.1 Cleome oxalidea 0.02 Cleome viscosa 0.03 Dactyloctenium radulans 0.01 Dysphania rhadinostachya 0.01 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 1 Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 Sida platycalyx 0.03 Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02	Acacia aneura				
Aristida contorta 0.03 Boerhavia coccinea 0.1 Cleome oxalidea 0.02 Cleome viscosa 0.03 Dactyloctenium radulans 0.01 Dysphania rhadinostachya 0.01 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 1 Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 Sida platycalyx 0.03 Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02	Acacia pruinocarpa			2	
Boerhavia coccinea 0.1 Cleome oxalidea 0.02 Cleome viscosa 0.03 Dactyloctenium radulans 0.01 Dysphania rhadinostachya 0.01 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 1 Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 Sida platycalyx 0.03 Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02	Acacia synchronicia				
Cleome oxalidea 0.02 Cleome viscosa 0.03 Dactyloctenium radulans 0.01 Dysphania rhadinostachya 0.01 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 1 Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 Sida platycalyx 0.03 Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02					
Cleome viscosa Dactyloctenium radulans Dysphania rhadinostachya Dysphania sp. Double Eriachne pulchella subsp. pulchella Gomphrena affinis subsp. pilbarensis Goodenia prostrata Heliotropium inexplicitum Portulaca oleracea 1 Ptilotus obovatus Salsola australis Senna notabilis Solanum lasiophyllum Speriodorea Double D					
Dactyloctenium radulans0.01Dysphania rhadinostachya0.01Dysphania sp.0.01Eriachne pulchella subsp. pulchella0.01Gomphrena affinis subsp. pilbarensis0.01Goodenia prostrata0.01Heliotropium inexplicitum0.01Portulaca oleracea1Ptilotus obovatus0.02Salsola australis0.03Sclerolaena cornishiana15Senna notabilis0.05Sida platycalyx0.03Solanum lasiophyllum0.3Sporobolus australasicus0.02					
Dysphania rhadinostachya0.01Dysphania sp.0.01Eriachne pulchella subsp. pulchella0.01Gomphrena affinis subsp. pilbarensis0.01Goodenia prostrata0.01Heliotropium inexplicitum0.01Portulaca oleracea1Ptilotus obovatus0.02Salsola australis0.03Sclerolaena cornishiana15Sida platycalyx0.03Solanum lasiophyllum0.3Sporobolus australasicus0.02					
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Eriachne pulchella subsp. pulchella Gomphrena affinis subsp. pilbarensis Goodenia prostrata Heliotropium inexplicitum Portulaca oleracea 1 Ptilotus obovatus Salsola australis Sclerolaena cornishiana 15 0.01 Senna notabilis Solanum lasiophyllum Sporobolus australasicus 0.01 0.01 0.01 0.01 0.02 0.03 0.03 0.03 0.05 0.03 0.03 0.03 0.03					
Gomphrena affinis subsp. pilbarensis Goodenia prostrata Heliotropium inexplicitum Portulaca oleracea Ptilotus obovatus Salsola australis Sclerolaena cornishiana 15 0.01 Senna notabilis Solanum lasiophyllum Sporobolus australasicus 0.01 0.01 0.01 0.02 0.03 0.03 0.03 0.03 0.03	• •	<i>II</i> -			
Goodenia prostrata 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 1 Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 Senna notabilis 0.05 Sida platycalyx 0.03 Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02	' '				
Heliotropium inexplicitum Portulaca oleracea Ptilotus obovatus Salsola australis Sclerolaena cornishiana 15 0.01 Senna notabilis Sida platycalyx Solanum lasiophyllum Sporobolus australasicus 0.01 0.02 0.03 0.05 0.03 0.03 0.03		11818			
Portulaca oleracea 1 Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 Sida platycalyx 0.03 Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02					
Ptilotus obovatus 0.02 Salsola australis 0.03 Sclerolaena cornishiana 15 0.01 Senna notabilis 0.05 Sida platycalyx 0.03 Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02					
Salsola australis0.03Sclerolaena cornishiana150.01Senna notabilis0.05Sida platycalyx0.03Solanum lasiophyllum0.3Sporobolus australasicus0.02					
Sclerolaena cornishiana150.01Senna notabilis0.05Sida platycalyx0.03Solanum lasiophyllum0.3Sporobolus australasicus0.02					
Senna notabilis0.05Sida platycalyx0.03Solanum lasiophyllum0.3Sporobolus australasicus0.02			15		
Sida platycalyx0.03Solanum lasiophyllum0.3Sporobolus australasicus0.02			1.0		
Solanum lasiophyllum 0.3 Sporobolus australasicus 0.02					
Sporobolus australasicus 0.02					
	-				





Date: 5.4.11 Photo # 1127 1128 Date revisit: 1/07/2011 Camera revisit N/A Initials: bn Photo # revisit Initials revisit: SC / LB Soils clay loams Zone: 50 Soil colour: red brown Datum: GDA94 Soil comments: surface gravel and a few rown NW Easting: 744114 Outcrop: NW Northing: 7497403 Outcrop Type: SE Easting: 744164 Litter cover (%) SE Northing: 7497354 Logs Twigs Leaves Topography: flat 1	Plot:	A036	Camera	brons camera	
Initials:	Date:	5.4.11	Photo #		1128
Initials revisit: SC / LB Soils Clay loams	Date revisit:	1/07/2011	Camera revisit	N/A	
Zone: 50 Soil colour: red brown Datum: GDA94 Soil comments: surface gravel and a few rown NW Easting: 744114 Outcrop: Word of the property of the prop	Initials:	bn	Photo # revisit		
Soil colour: red brown Datum: GDA94 Soil comments: surface gravel and a few rown NW Easting: 744114 Outcrop:	Initials revisit:	SC / LB	Soils	clay loams	
NW Easting: 744114	Zone:	50	Soil colour:	T T	
NW Northing: 7497403 Outcrop Type: SE Easting: 744164 Litter cover (%) SE Northing: 7497354 Logs Twigs Leaves Topography: flat 1 *** *** Cove STRATA Ht (cm) % Cove Cove *** *** Cove *** *** *** Cove *** *** *** *** Cove ***	Datum:	GDA94	Soil comments:	surface gravel	and a few rocks
NW Northing: 7497403 Outcrop Type: SE Easting: 744164 Litter cover (%) SE Northing: 7497354 Logs Twigs Leaves Topography: flat 1 *** *** Cove STRATA Ht (cm) % Cove Cove *** *** Cove *** *** *** Cove *** *** *** *** Cove ***	NW Easting:	744114	Outcrop:		
SE Easting: 744164 Litter cover (%) SE Northing: 7497354 Logs Twigs Leaves Topography: flat 1 4		7497403	Outcrop Type:	•	
Topography: flat 1 Aspect: STRATA Ht (cm) % Cove Slope: Upper Time since fire (yrs): >5 Mid 150 0.1 Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations Height (cm) % AC % DC Abutilon otocarpum 0.03 Acacia aneura 0.03 Acacia aneura 0.03 Acacia synchronicia 0.1 Boerhavia coccinea 1 0.01 Cenchrus ciliaris 0.01 0.01 Cleome oxalidea 0.01 0.01 Cleome viscosa 0.01 0.02 Corchorus sidoides subsp. sidoides 0.03 Corchorus sp. 15 0.02 Dysphania rhadinostachya 0.5 0.03	SE Easting:	744164	Litter cover (%)		
Topography: flat 1 Aspect: STRATA Ht (cm) % Cove Slope: Upper Time since fire (yrs): >5 Mid 150 0.1 Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations Height (cm) % AC % DC Abutilon otocarpum 0.03 Acacia aneura 0.03 Acacia aneura 0.03 Acacia synchronicia 0.1 Boerhavia coccinea 1 0.01 Cenchrus ciliaris 0.01 0.01 Cleome oxalidea 0.01 0.01 Cleome viscosa 0.01 0.02 Corchorus sp. 15 0.02 Dysphania rhadinostachya 0.5 Dysphania sp. 0.03	SE Northing:	7497354	Logs	Twigs	Leaves
STRATA	Topography:	flat			
Time since fire (yrs): >5 Mid 150 0.1 Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations Height (cm) % AC % DC Abutilon otocarpum 0.03 Acacia aneura 0.03 Acacia aneura 0.03 Acacia synchronicia 0.1 Boerhavia coccinea 1 0.01 Cenchrus ciliaris 0.01 0.01 Cleome oxalidea 0.01 0.01 Cleome viscosa 0.01 0.03 Corchorus sidoides subsp. sidoides 0.03 Corchorus sp. 15 0.02 Dysphania rhadinostachya 0.5 Dysphania sp. 0.03			STRATA	Ht (cm)	% Cover
Disturbance: low Lower 50 3 Condition: excellent Bare ground (%): 96 Observations Height (cm) % AC % DC Abutilon otocarpum 0.03 Acacia aneura 0.03 Acacia synchronicia 0.1 Boerhavia coccinea 1 Cenchrus ciliaris 0.01 Cleome oxalidea 0.01 Cleome viscosa 0.01 Corchorus sidoides subsp. sidoides 0.03 Corchorus sidoides subsp. sidoides 0.03 0.02 Dysphania rhadinostachya 0.5 Dysphania sp. 0.03 0.03 0.03 0.03	Slope:		Upper		
Condition: excellent Bare ground (%): 96 Observations Species Height (cm) % AC % DC Abutilon otocarpum 0.03 0.03 0.03 0.03 0.03 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.03 0.02 0.02 0.05 0.05 0.03 0.03 0.05 0.03 0.03 0.05 0.03 0.03 0.03 0.05 0.03 0.03 0.03 0.05 0.03 0.03 0.03 0.05 0.03 0.03 0.03 0.05 0.03 0.03 0.03 0.05 0.03	Time since fire (yrs):	>5	Mid	150	0.1
ObservationsHeight (cm)% AC% DCAbutilon otocarpum0.03Acacia aneura0.03Acacia synchronicia0.1Boerhavia coccinea1Cenchrus ciliaris0.01Cleome oxalidea0.01Cleome viscosa0.01Corchorus sidoides subsp. sidoides0.03Corchorus sp.150.02Dysphania rhadinostachya0.5Dysphania sp.0.03	Disturbance:	low	Lower	50	3
Species Height (cm) % AC % DC Abutilon otocarpum 0.03 0.03 Acacia aneura 0.03 0.01 Acacia synchronicia 0.1 0.1 Boerhavia coccinea 1 0.01 Cenchrus ciliaris 0.01 0.01 Cleome oxalidea 0.01 0.01 Cleome viscosa 0.01 0.03 Corchorus sidoides subsp. sidoides 0.03 0.02 Dysphania rhadinostachya 0.5 0.03 Dysphania sp. 0.03 0.03	Condition:	excellent	Bare ground (%):	96	
Abutilon otocarpum Acacia aneura Acacia synchronicia Boerhavia coccinea Cenchrus ciliaris Cleome oxalidea Cleome viscosa Corchorus sidoides subsp. sidoides Corchorus sp. Dysphania rhadinostachya Dysphania sp. 0.03 0.03 0.01 0.01 0.02 0.03	Observations				
Acacia aneura 0.03 Acacia synchronicia 0.1 Boerhavia coccinea 1 Cenchrus ciliaris 0.01 Cleome oxalidea 0.01 Cleome viscosa 0.01 Corchorus sidoides subsp. sidoides 0.03 Corchorus sp. 15 Dysphania rhadinostachya 0.5 Dysphania sp. 0.03	Species		Height (cm)	% AC	% DC
Acacia synchronicia 0.1 Boerhavia coccinea 1 Cenchrus ciliaris 0.01 Cleome oxalidea 0.01 Cleome viscosa 0.01 Corchorus sidoides subsp. sidoides 0.03 Corchorus sp. 15 0.02 Dysphania rhadinostachya 0.5 0.03 Dysphania sp. 0.03 0.03	Abutilon otocarpum			0.03	
Boerhavia coccinea 1 Cenchrus ciliaris 0.01 Cleome oxalidea 0.01 Cleome viscosa 0.01 Corchorus sidoides subsp. sidoides 0.03 Corchorus sp. 15 0.02 Dysphania rhadinostachya 0.5 0.03 Dysphania sp. 0.03 0.03	Acacia aneura			0.03	
Cenchrus ciliaris0.01Cleome oxalidea0.01Cleome viscosa0.01Corchorus sidoides subsp. sidoides0.03Corchorus sp.150.02Dysphania rhadinostachya0.5Dysphania sp.0.03	Acacia synchronicia			0.1	
Cleome oxalidea0.01Cleome viscosa0.01Corchorus sidoides subsp. sidoides0.03Corchorus sp.150.02Dysphania rhadinostachya0.5Dysphania sp.0.03	Boerhavia coccinea			1	
Cleome viscosa0.01Corchorus sidoides subsp. sidoides0.03Corchorus sp.150.02Dysphania rhadinostachya0.5Dysphania sp.0.03	Cenchrus ciliaris			0.01	
Corchorus sidoides subsp. sidoides0.03Corchorus sp.150.02Dysphania rhadinostachya0.5Dysphania sp.0.03	Cleome oxalidea			0.01	
Corchorus sp. 15 0.02 Dysphania rhadinostachya 0.5 Dysphania sp. 0.03					
Dysphania rhadinostachya0.5Dysphania sp.0.03	· · · · · · · · · · · · · · · · · · ·	ides			
Dysphania sp. 0.03	•		15		
				_	
Eriacnne puicneila subsp. puicneila 10.01 10.01	• •	# -			
		nella			
Euphorbia ?australis 0.01	·				
Goodenia prostrata 0.01 Portulaca oleracea 2					
Portulaca oleracea 2 Ptilotus aervoides 0.01	Portulaca oleracea				
Salsola australis 0.5					
Sclerolaena cornishiana 0.01					
Senna artemisioides subsp. oligophylla 0.03					
Senna artemisioides subsp. oligophylla				1000	
Senna notabilis 0.03	·			0.03	
Sida platycalyx 20 0.04			20		
Solanum lasiophyllum 0.03				-	
Sporobolus australasicus 0.01					
Tribulus astrocarpus 0.03	•				





Plot:	A037	Camera	brons camera	
Date:	5.4.11	Photo #	1129	1130
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	1100
Initials:	BN / SC	Photo # revisit	lb0145	lb0146
Initials revisit:	SC / LB	Soils	clay loams	100110
				1
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	743248	Outcrop:		
NW Northing:	7496834	Outcrop Type:		
SE Easting:	743298	Litter cover (%)		
SE Northing:	7496795	Logs	Twigs	Leaves
Topography:	flat	1	4	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	35
Time since fire (yrs):	>5	Mid	200	5
Disturbance:	low	Lower	50	10
Condition:	excellent	Bare ground (%):	70	
Observations				
Species	1	Height (cm)	% AC	% DC
Acacia aneura		Troight (om)	35	
Acacia synchronicia			0.2	
			0.01	
acacia tetragonophylla Aristida contorta			0.01	
Boerhavia coccinea			0.03	
Bulbostylis barbata			0.01	
Calotis multicaulis		15	0.01	
Cenchrus ciliaris			0.03	
Cheilanthes sieberi subsp. sie	eberi		0.02	
Chrysopogon fallax			1	
Cleome viscosa			0.02	
Corchorus tridens			0.01	
Corymbia hamersleyana		50	0.01	
Cucumis maderaspatanus			0.02	
Dactyloctenium radulans			0.01	
Dichanthium sericeum subsp.	humilius		0.01	
Digitaria ctenantha		40	0.01	
Dodonaea petiolaris		00	0.03	
Duperreya commixta Dysphania sp.		20	0.01	
			0.01	
Enchylaena tomentosa			0.02	
Enteropogon ramosus Eragrostis setifolia			0.02	
Eragrostis setirolia Eremophila forrestii ?subsp. forrestii			0.02	
Eremophila forrestii ?subsp. forrestii		50	0.03	
Eremophila lanceolata			0.1	
Eriachne pulchella subsp. dominii			0.01	
Euphorbia ?australis			0.01	
Evolvulus alsinoides var. villosicalyx			0.01	
Gomphrena affinis subsp. pilb	arensis		0.03	
Goodenia prostrata			0.011	
Hakea lorea subsp. lorea			0.05	
Malvastrum americanum			0.01	
	Malvastrum americanum			I

Paspalidium basicladum		0.01	
Perotis rara		0.02	
Polycarpaea corymbosa		0.01	
Portulaca oleracea		0.02	
Psydrax latifolia		0.05	
Ptilotus obovatus		0.02	
Senna artemisioides subsp. oligophylla		0.02	
Senna notabilis		0.03	
Sporobolus australasicus		0.03	
Stenopetalum nutans	20	0.01	
Triodia epactia		5	
Yakirra australiensis		0.01	





Plot: A038		Camera	brons camera	
Date:	5.4.11	Photo #	1131	1133
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	1 1100
Initials:	BN / SC	Photo # revisit	lb0147	lb0148
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	Tod Brown	
NW Easting:	743436	Outcrop:		
NW Northing:	7496493	Outcrop Type:		
SE Easting:	743487	Litter cover (%)		
SE Northing:	7496443	Logs	Twigs	Leaves
Topography:	flat	5	1 Wigs	10
Aspect:	liat	STRATA	Ht (cm)	% Cover
Slope:		Upper	700	30
Time since fire (yrs):	>5	Mid	300	3
Disturbance:	moderate	Lower	50	15
Condition:			45	10
Observations	good / very good	Bare ground (%):	45	
Species		Height (cm)	% AC	% DC
· ·		Height (Cili)	0.02	70 20
Abutilon lepidum Acacia aneura			30	
			0.05	
Acacia tetragonophylla Bidens bipinnata		25	2	
Blumea tenella		15	0.01	
Boerhavia coccinea		10	0.1	
Cenchrus ciliaris			1	
Chrysopogon fallax			10	
Convolvulus remotus			0.01	
Corchorus tridens			0.011	
Cucumis maderaspatanus			0.04	
Dactyloctenium radulans			0.03	
Dichanthium sericeum subsp. hu	ımilius		0.02	
Enchylaena tomentosa			0.03	
Enteropogon ramosus			0.01	
Eragrostis setifolia			0.01	
Eremophila forrestii ?subsp. forre	estii		0.2	
Eremophila lanceolata			0.1	
Evolvulus alsinoides var. villosicalyx			0.01	
Gomphrena affinis subsp. pilbarensis			0.02	
Hakea lorea subsp. lorea			0.03	
Malvastrum americanum			0.02	
Paspalidium basicladum			0.01	
Perotis rara			0.01	
Portulaca oleracea			0.02	
Psydrax latifolia			2	
Senna artemisioides subsp. oligo	ophylla		0.1	
Senna notabilis			0.5	
Triodia epactia			0.1	
Yakirra australiensis			0.02	





Plot:	A039	Camera	brons camera		
Date:	5.4.11	Photo #	1134 1135		
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	nnister	
Initials:	bn	Photo # revisit	lb0151	lb0152	
Initials revisit:	SC / LB	Soils	clay loams		
Zone:	50	Soil colour:	red brown		
Datum:	GDA94	Soil comments:	100 5101111		
NW Easting:	743885	Outcrop:			
NW Northing:	7495952	Outcrop Type:			
SE Easting:	743936	Litter cover (%)			
SE Northing:	7495903	Logs	Twigs	Leaves	
Topography:	flat		1	3	
Aspect:		STRATA	Ht (cm)	% Cover	
Slope:		Upper	700	2	
Time since fire (yrs):	>5	Mid	300	3	
Disturbance:	moderate	Lower	70	25	
Condition:	good	Bare ground (%):	70		
Observations	grazing				
Species		Height (cm)	% AC	% DC	
Acacia dictyophleba			0.5		
Acacia inaequilatera			2		
Acacia pruinocarpa			2		
Acacia pyrifolia			0.03		
Acacia sclerosperma subsp. so	clerosperma		0.2		
Boerhavia coccinea			0.03		
Capparis umbonata (Juv)		170	0.1		
Cenchrus ciliaris			15		
Cleome viscosa			0.01		
Corymbia hamersleyana			0.1		
Cucumis maderaspatanus			0.03		
Ehretia saligna var. saligna		230	0.1		
Eragrostis eriopoda			0.01		
Euphorbia ?australis			0.01		
Evolvulus alsinoides var. villos	icalyx		0.01		
Hakea lorea subsp. lorea			0.5		
Indigofera monophylla		4.5	0.03		
Notoleptopus decaisnei		15	0.01		
Portulaca oleracea			0.01		
Ptilotus exaltatus var. exaltatus	S		0.03 0.05		
Salsola australis Sclerolaena cornishiana			0.03		
Senna notabilis			0.05		
Streptoglossa sp.			0.03		
Themeda triandra			0.02		
Triodia epactia			10		
тпоша ерасна			1.5		





Plot:	A040	Camera	brons camera	a
Date:	6.4.11	Photo #	1136 1137	
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	BN / SC	Photo # revisit	lb0664 lb0665	
Initials revisit:	SC / LB	Soils	sandy loams	
Zone:	50	Soil colour:	red	
Datum:	GDA94	Soil comments:		
NW Easting:	724073	Outcrop:		
NW Northing:	7506290	Outcrop Type:		
SE Easting:	724122	Litter cover (%)		
SE Northing:	7506239	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	40636	Mid	200	10
Disturbance:	low	Lower	100	20
Condition:	excellent	Bare ground (%):	70	
Observations				
Species		Height (cm)	% AC	% DC
Acacia sclerosperma subsp. sc	elerosperma		1	
Aristida holathera var. holather	a		0.03	
Bonamia rosea			1	
Corchorus sidoides subsp. sidoides			0.01	
Dicrastylis cordifolia			0.1	
Eragrostis eriopoda			0.3	
Eriachne aristidea			0.01	
Eucalyptus gamophylla			3	
Hibiscus sturtii var. platychlamy	/S		0.02	
Indigofera monophylla			0.01	
Petalostylis labicheoides			6	
Portulaca oleracea			0.01	
Ptilotus astrolasius			4	
Ptilotus exaltatus var. exaltatus			0.01	
Ptilotus polystachyus		50	0.03	
Salsola australis			0.02	
Scaevola parvifolia subsp. parv	rifolia		0.2	
Senna notabilis			0.01	
Sida arenicola			0.01	
Sida cardiophylla		30	0.01	
Stylobasium spathulatum		110	2	
Trianthema pilosa			0.03	
Triodia basedowii			15	





Plot:	A041	Camera	Brons Carr	nera
Date:	5.4.11	Photo #	1138 1139	
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	bn	Photo # revisit	b0659/ b06590	
Initials revisit:	SC / LB	Soils	sand loams	
Zone:	50	Soil colour:	red	
Datum:	GDA94	Soil comments:		
NW Easting:	725231	Outcrop:		
NW Northing:	7505844	Outcrop Type:		
SE Easting:	725281	Litter cover (%)		
SE Northing:	7505794	Logs	Twigs	Leaves
Topography:	flat		1	1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	3 to 4	Mid	200	2
Disturbance:	excellent	Lower	50	20
Condition:		Bare ground (%):	75	
Observations			•	•
Species		Height (cm)	% AC	% DC
Acacia inaequilatera			1	
Acacia sclerosperma subsp. s	sclerosperma		3	
Aristida contorta			0.01	
Aristida holathera var. holathe	era		0.03	
Boerhavia coccinea			0.02	
Bonamia rosea			0.05	
Bulbostylis barbata			0.01	
Cleome viscosa			0.01	
Corchorus sidoides subsp. sid	doides		0.05	
Dicrastylis cordifolia			0.03	
Dysphania sp.			0.01	
Eragrostis eriopoda			0.1	
Eriachne aristidea			0.01	
Eucalyptus gamophylla			1	
Euphorbia ?australis			0.01	
Goodenia microptera			0.01	
Hakea lorea subsp. lorea			0.2	
Hibiscus sturtii var. platychlan	nys		0.01	
Indigofera monophylla			0.01	
Paraneurachne muelleri			0.01	
Portulaca oleracea			0.03	
Ptilotus astrolasius			4	
Ptilotus obovatus			0.03	
Ptilotus polystachyus			0.01	
Scaevola parvifolia subsp. pa			0.3	
Senna artemisioides subsp. c	ligophylla		0.06	
Sida cardiophylla			0.01	
Solanum lasiophyllum			0.01	
Stylobasium spathulatum			0.5	
Trianthema pilosa			0.02	
Tribulus macrocarpus			0.01	

Triodia basedowii	15	





Plot:	A042	Camera	brons camera	
Date:	5.4.11	Photo #	1139	1140
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	
Initials:	BN / SC	Photo # revisit		lb0634
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	large areas of	hardpan clav
NW Easting:	725995	Outcrop:	3	,
NW Northing:	7505508	Outcrop Type:		
SE Easting:	726045	Litter cover (%)		
SE Northing:	7505460	Logs	Twigs	Leaves
Topography:	flat	2	4	4
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	15
Time since fire (yrs):	>5	Mid	300	10
Disturbance:	high	Lower	60	15
Condition:	poor	Bare ground (%):	75	
Observations		, ,	1	
Species	•	Height (cm)	% AC	% DC
Acacia aneura			15	
Acacia sclerosperma subsp. sclero	osperma		0.05	
Acacia synchronicia			4	
Boerhavia coccinea			0.01	
Calotis multicaulis			0.01	
Cenchrus ciliaris			10	
Chrysopogon fallax			5	
Cleome viscosa			0.01	
Corchorus tridens			0.01	
Enchylaena tomentosa			0.01	
Eremophila forrestii ?subsp. forres	tii		0.05	
Eremophila lanceolata			0.01	
Euphorbia australis			1	
Goodenia microptera			0.01	
Hakea lorea subsp. lorea			0.01	
Ipomoea muelleri			0.2	
Maireana planifolia		50	0.02	
Portulaca oleracea			0.01	
Psydrax latifolia			0.03	
Pterocaulon sp.		15	0.01	
Ptilotus calostachyus			0.01	
Ptilotus obovatus			0.03	
Salsola australis			0.03	
Scaevola spinescens		200	2	
Sclerolaena cornishiana			0.01	
Senna artemisioides subsp. oligop			0.01	
Senna glutinosa subsp. chatelainia	ana		0.01	
Solanum lasiophyllum			0.01	
Spermacoce brachystema			0.01	
Sporobolus australasicus			0.01	
Trianthema triquetra			0.01	

Vachellia farnesiana	0.1	1	_



Plot:	A043	Camera	Brons Camera	
Date:	6.4.11	Photo #	1141	1142
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	bn	Photo # revisit	lb0649 lb0650	
Initials revisit:	SC / LB	Soils	Clay Loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	large areas of	l clav hardnan
NW Easting:	726221	Outcrop:	large areas or	пау пагарап
NW Northing:	7505439	Outcrop Type:		
SE Easting:	726270	Litter cover (%)		
SE Northing:	7505389	Logs	Twigs	Leaves
Topography:	flat	Logs	3	3
Aspect:	nat	STRATA	Ht (cm)	% Cover
Slope:		Upper	Tit (Citi)	78 COVEI
Time since fire (yrs):	>5	Mid	300	15
Disturbance:	high	Lower	60	15
Condition:				13
Observations	poor	Bare ground (%):	70	
Species	1	Height (cm)	% AC	% DC
Acacia ? paraneura		3	0.05	70 00
Acacia aneura		3	0.05	
Acacia synchronicia			15	
Aerva javanica		110	0.03	
Atriplex ?amnicola		110	0.05	
Boerhavia coccinea			0.03	
Calotis multicaulis			0.01	
Cenchrus ciliaris			15	
Chrysopogon fallax			0.1	
Cleome viscosa			0.01	
Corchorus tridens			0.01	
Dactyloctenium radulans			0.01	
Dysphania rhadinostachya			0.01	
Enteropogon ramosus			0.01	
Eragrostis eriopoda			0.01	
Eremophila forrestii ?subsp	forrestii		0.01	
Eremophila lanceolata			0.01	
Euphorbia australis			0.02	
Maireana pyramidata			0.05	
Portulaca oleracea			0.01	
Pterocaulon sp.			0.01	
Pterocaulon sphaeranthoide	25		0.01	
Ptilotus exaltatus var. exalt			0.01	
Ptilotus helipteroides			0.01	
Ptilotus obovatus			0.05	
Rhagodia eremaea			0.03	
Salsola australis			0.01	
Scaevola spinescens			0.05	
Sclerolaena cornishiana			0.01	
Sporobolus australasicus			0.01	
Trianthema triquetra			0.01	
Tribulus macrocarpus			0.01	
Triodia basedowii				
Triodia basedowii			0.5	
			1	





Plot:	A044	Camera	bronwyn cam	era
Date:	13.4.11	Photo #	662	σια
Date revisit:	1/07/2011	Camera revisit:	Lisa Banniste	r
Initials:	BN / SC	Photo # revisit	lb0276	N/A
Initials revisit:	SC / LB	Soils	sand loams	IN/ /\
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:	ICG DIOWII	
NW Easting:	744618	Outcrop:		
NW Northing:	7486971	Outcrop Type:		
SE Easting:	744669	Litter cover (%)		
SE Northing:	7486923	Logs	Twigs	Leaves
Topography:	flat	Logo	1 Wigs	1
Aspect:	nat .	STRATA	Ht (cm)	% Cover
Slope:		Upper	Tit (om)	70 00 701
Time since fire (yrs):	patchy between 1 and 3 years	Mid	400	1
Disturbance:	low	Lower	100	15
Condition:	excellent	Bare ground (%):		
Observations	excellent	Dare ground (70).	03	
Species	L	Height (cm)	% AC	% DC
		Height (cm)	% AC 0.01	/0 DC
Abutilon otocarpum Acacia ancistrocarpa		20	0.01	
Acacia ancistrocarpa Acacia pachyacra			0.5	
Aristida contorta			0.3	
Boerhavia coccinea			0.05	
Bulbostylis barbata			0.03	
Cenchrus ciliaris			0.02	
Cleome viscosa			0.02	
	en sidoidos		0.05	
Corchorus sidoides subsp. sidoides Corymbia hamersleyana			1	
Cucumis maderaspatan			0.01	
Dysphania rhadinostachya			0.01	
Eragrostis eriopoda			4	
Eriachne aristidea			0.05	
Euphorbia ?australis			0.01	
Goodenia microptera			0.01	
Hakea lorea subsp. lore	ea .		0.1	
Heliotropium inexplicitur			0.01	
Hibiscus sturtii var. platy			0.03	
Indigofera monophylla	, ,		0.05	
Paraneurachne muelleri			0.1	
Polycarpaea corymbosa			0.01	
Portulaca oleracea			0.01	
Ptilotus astrolasius			0.03	
Ptilotus helipteroides			0.01	
Ptilotus polystachyus		30	0.02	
Senna artemisioides sul	osp. <i>oligophylla</i>		0.05	
Senna notabilis			0.05	
Sida cardiophylla			0.01	
Sida platycalyx			0.02	
Solanum lasiophyllum			0.1	
Solanum lasiophyllum			0.03	
Sporobolus australasicu	S		0.01	
Streptoglossa ? bubakii		40	0.02	
Streptoglossa sp.			0.03	
Tephrosia supina		20	0.01	
Trianthema pilosa			0.11	
Triodia epactia			10	
Yakirra australiensis			0.01	





Plot:	A045	Camera	nw	
Date:	13.4.11	Photo #	664	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r
Initials:	BN / SC	Photo # revisit	lb0291	N/A
Initials revisit:	SC / LB	Soils	sand loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	743882	Outcrop:		
NW Northing:	7486398	Outcrop Type:		
SE Easting:	743931	Litter cover (%)		
SE Northing:	7486348	Logs	Twigs	Leaves
Topography:	flat		190	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	111 (0111)	70 00101
Time since fire (yrs):	>5	Mid	300	4
Disturbance:	low	Lower	100	30
Condition:	excellent	Bare ground (%):		
Observations				
Species		Height (cm)	% AC	% DC
Acacia inaequilatera		lioigiii (oiii)	4	,,,,,
Aristida contorta			0.3	
Aristida holathera			0.01	
Aristida inaequiglumis			0.01	
Boerhavia coccinea			0.05	
Bulbostylis barbata			0.01	
Cenchrus ciliaris			0.03	
Cleome viscosa			0.01	
Corchorus sidoides sub	sn sidoides		0.01	
Cucumis maderaspatan	•		0.02	
Cymbopogon obtectus	us	80	0.02	
Dicrastylis cordifolia		00	0.01	
Eragrostis eriopoda			10	
Eriachne aristidea			0.01	
Euphorbia ?australis			0.01	
Goodenia microptera			0.01	
			0.01	
Gossypium australe Hakea lorea subsp. lore			0.02	
Heliotropium inexplicitur			0.2	
Hibiscus sturtii var. plat			0.03	
Indigofera monophylla	Cilianiys		0.03	
Paraneurachne muelleri			1	
Polycarpaea corymbosa			0.01	
Ptilotus astrolasius			0.03	
Ptilotus astroiasius Ptilotus helipteroides			0.01	
			0.01	
Ptilotus polystachyus Senna artemisioides subsp. oligophylla x helmsii			0.055	
Senna notabilis	oop. Siigopriyiid x rioiiridii		0.03	
Sida cardiophylla			0.01	
Solanum lasiophyllum			0.05	
Streptoglossa ? bubakii			0.01	
Trianthema pilosa			0.3	
Tribulus macrocarpus			0.01	
Triodia epactia			12	
oaia opaolia			. 4	





Plot:	A046	Camera	brons camera	ì
Date:	13.4.11	Photo #	666	667
Date revisit:	1/07/2011	Camera revisit:	Lisa Banniste	r
Initials:	bn	Photo # revisit	lb0293	lb0294
Initials revisit:	SC / LB	Soils	sand loamS	
Zone:	50	Soil colour:	red brown	
Datum:	gda94	Soil comments:		
NW Easting:	743101	Outcrop:		
NW Northing:	7486367	Outcrop Type:		
SE Easting:	743150	Litter cover (%)		
SE Northing:	7486318	Logs	Twigs	Leaves
Topography:	flat			1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	2
Time since fire (yrs):	>5	Mid	300	1
Disturbance:	low	Lower	100	45
Condition:	excellent	Bare ground (%):	50	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon otocarpum			0.01	
Acacia sclerosperma subsp. s			0.5	
Aristida holathera var. holathe	ra		0.02	
Atalaya hemiglauca			0.1	
Boerhavia coccinea			0.01	
Cenchrus ciliaris			0.5	
Chrysopogon fallax			0.3	
Corymbia hamersleyana			2	
Eragrostis eriopoda			0.03	
Euphorbia ?australis			0.01	
Gossypium australe Hakea lorea subsp. lorea			0.03 0.2	
Hibiscus sturtii var. platychlam	11/9		0.2	
Paraneurachne muelleri			0.01	
Rhynchosia minima			0.03	
Scaevola spinescens			0.3	
Senna artemisioides subsp. ol	igophylla		0.1	
Tephrosia rosea var. glabrior	<u> </u>		0.01	
Tephrosia supina			0.01	
Triodia epactia			45	





Plot:	A047	Camera	brons camera	
Date:	13.4.11	Photo #	668	669
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	
Initials:	bn	Photo # revisit	lb238\	lb2389
Initials revisit:	SC / LB	Soils	river sand	
Zone:	50	Soil colour:	brown	
Datum:	GDA94	Soil comments:	loose gravel a	and rocks
NW Easting:	740389	Outcrop:	1003e graver a	ind rocks
NW Northing:				
	7486601	Outcrop Type:		
SE Easting:	740439	Litter cover (%)		
SE Northing:	7486550	Logs	Twigs	Leaves
Topography:	MaC	2	3	5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1500	5
Time since fire (yrs):	>5	Mid	400	10
Disturbance:	high	Lower	50	30
Condition:	degraded	Bare ground (%):		55
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?coriacea subsp. pende	ens	130	0.03	
Acacia citrinoviridis			8	
Acacia elachantha			1	
Acacia pyrifolia var. pyrifolia		400	2	
Amaranthus undulatus		30	0.1	
Aristida contorta			0.03	
Aristida holathera var. holather	a		0.01	
Atalaya hemiglauca			0.1	
Boerhavia coccinea			0.08	
Cenchrus ciliaris			25	
Cleome viscosa		100	0.03	
Cymbonogon on		100	1	
Cymbopogon sp.		100	0.04 0.05	
Duperreya commixta Enneapogon robustissimus			0.03	
Eriachne pulchella subsp. dom	inii		0.02	
Eucalyptus victrix			4	
Euphorbia ?australis			0.01	
Gomphrena cunninghamii			0.4	
Gossypium robinsonii		120	0.07	
Heliotropium cunninghamii		15	0.01	
Hybanthus aurantiacus		-	0.03	
Indigofera monophylla			0.03	
Notoleptopus decaisnei			0.01	
Phyllanthus maderaspatensis		30	0.01	
Polycarpaea longiflora		40	0.03	
Ptilotus auriculifolius			0.01	
Ptilotus obovatus var. obovatus	3	60	0.06	
Solanum sturtianum		50	0.01	
Tephrosia rosea var. glabrior		30	0.04	
Triodia epactia			0.1	





Plot:	A048	Camera	brons camera	[
Date:	13.4.11	Photo #	670	671
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	
Initials:	BN / SC	Photo # revisit	lb301\	lb3012
Initials revisit:	SC / LB	Soils	river sand	
Zone:	50	Soil colour:	brown	
Datum:	GDA94	Soil comments:	loose gravel a	and rocks
NW Easting:	740445	Outcrop:	g.a.ra.ra	
NW Northing:	7485996	Outcrop Type:		
SE Easting:	740495	Litter cover (%)		
SE Northing:	7485947	Logs	Twigs	Leaves
Topography:	MaC	5	5 5	5
Aspect:	IVIAC	STRATA		% Cover
Slope:		Upper	Ht (cm) 700	% Cover 5
Time since fire (yrs):	. <i>E</i>	Mid	+	
	>5		400	5
Disturbance:	low	Lower	100	15
Condition:	excellent	Bare ground (%):	: 70	
Observations		T		0/ 00
Species		Height (cm)	% AC	% DC
Acacia ?coriacea subsp. per	ndens		1	
Acacia citrinoviridis			4	
Acacia pyrifolia var. pyrifolia			1	
Amaranthus undulatus			1	
Aristida contorta			0.03	
Aristida holathera var. holath	era		0.01	
Atalaya hemiglauca			0.05	
Boerhavia coccinea			0.05	
Cenchrus ciliaris			1	
Cleome viscosa			0.3	
Corchorus crozophorifolius			5	
Cucumis maderaspatanus			0.01	
Duperreya commixta			0.02	
Enneapogon polyphyllus Enneapogon robustissimus			0.05 0.03	
Eriachne pulchella subsp. do	ominii		0.03	
Eucalyptus victrix	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		8	
Euphorbia ?australis			0.01	
Gomphrena cunninghamii			0.01	
Gossypium robinsonii			0.05	
Heliotropium cunninghamii			0.01	
Hybanthus aurantiacus			0.01	
Indigofera monophylla			3	
Notoleptopus decaisnei			0.2	
Phyllanthus maderaspatensis	<u> </u>		0.01	
Polycarpaea longiflora			0.03	
Ptilotus exaltatus var. exalta	tus		0.03	
Ptilotus obovatus var. obova	tus		0.3	
Tephrosia rosea var. glabrio	r		1	





Plot:	A049	Camera	brons camera	ı
Date:	13.4.11	Photo #	672	673
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r
Initials:	BN / SC	Photo # revisit	lb297/	lb2978
Initials revisit:	SC / LB	Soils	clay loamS	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	stony surface	
NW Easting:	740771	Outcrop:		
NW Northing:	7485669	Outcrop Type:		
SE Easting:	740823	Litter cover (%)		
SE Northing:	7485619	Logs	Twigs	Leaves
Topography:	flat	2	2	4
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	1
Time since fire (yrs):	>5	Mid	300	2
Disturbance:	high	Lower	60	60
Condition:	poor	Bare ground (%):	35	
Observations				
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis			0.1	
Acacia inaequilatera			0.03	
Acacia pruinocarpa			2	
Acacia sclerosperma subsp.	sclerosperma		1	
Atalaya hemiglauca			0.05	
Boerhavia coccinea			0.01	
Cenchrus ciliaris			60	
Euphorbia ?australis			0.01	
Portulaca oleracea			0.01	
Ptilotus obovatus			0.1	
Salsola australis			0.01	
Solanum lasiophyllum			0.02	





Plot:	A050	Camera		
Date:	14.4.11	Photo #	674	675
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Initials:	bn	Photo # revisit	lb0457	lb0458
Initials revisit:	SC / LB	Soils	clay loamS	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	742937	Outcrop:		
NW Northing:	7489779	Outcrop Type:		
SE Easting:	742988	Litter cover (%)		
SE Northing:	7489730	Logs	Twigs	Leaves
Topography:	flat			1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	200	2
Disturbance:	low	Lower	100	50
Condition:	excellent	Bare ground (%):	50	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		200	0.3	
Acacia inaequilatera			0.3	
Acacia pachyacra			0.5	
Acacia pruinocarpa			0.5	
Acacia sclerosperma subsp. sc	lerosperma		1	
Atalaya hemiglauca			0.3	
Boerhavia coccinea			0.01	
Bulbostylis barbata			0.01	
Cenchrus ciliaris			0.1	
Chrysopogon fallax		00	0.02	
Crotalaria medicaginea var. neg	уюста	20	0.01	
Dactyloctenium radulans Hakea lorea subsp. lorea			0.01	
			0.3 0.01	
Indigofera monophylla			0.01	
Perotis rara Polycarpaea corymbosa			0.01	
Scaevola spinescens			0.5	
Senna artemisioides subsp. olig	gophvlla		0.05	
Sporobolus australasicus	- · · · · · · · · · · · · · · · · · · ·		0.03	
Streptoglossa sp.			0.01	
Tephrosia supina			0.01	
Triodia epactia			50	





Plot:	A051	Camera	brons camer	а
Date:	14/04/2011		676	677
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	BN / SC	Photo # revisit	lb0435	lb0436
Initials revisit:	SC / LB	Soils	loamS	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	740153	Outcrop:		
NW Northing:	7488748	Outcrop Type:		
SE Easting:	740203	Litter cover (%)		
SE Northing:	7488699	Logs	Twigs	Leaves
Topography:	flat	2	1	5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	3
Time since fire (yrs):	>5	Mid	400	5
Disturbance:	high	Lower	50	35
Condition:	poor	Bare ground (%):	55	
Observations	gently undulating			
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis			0.3	
Acacia pruinocarpa			2	
Atalaya hemiglauca			0.5	
Boerhavia coccinea			0.03	
Cenchrus ciliaris			20	
Cleome viscosa			0.01	
Corymbia hamersleyana			3	
Cucumis maderaspatanus		0.50	0.01	
Eremophila longifolia		250	0.5	
Gossypium australe			0.01	
Hakea lorea subsp. lorea			0.01	
Malvastrum americanum			0.01	
Ptilotus obovatus		50	0.03	
Rhagodia eremaea Senna notabilis		30	0.03	
Triodia epactia			10	
Thoula opacia			10	





Plot:	A052	Camera	brons camera	l
Date:	14.4.11	Photo #	679	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r
Initials:	bn	Photo # revisit	lb0406	lb0407
Initials revisit:	SC / LB	Soils	sand loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	739620	Outcrop:		
NW Northing:	7488242	Outcrop Type:		
SE Easting:	739671	Litter cover (%)		
SE Northing:	7488193	Logs	Twigs	Leaves
Topography:	flat	1		3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	2
Time since fire (yrs):	>5	Mid	200	1
Disturbance:	high	Lower	50	25
Condition:	poor	Bare ground (%):	75	
Observations				
Species		Height (cm)	% AC	% DC
Species Acacia ancistrocarpa	1	Height (cm)	0.03	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis		Height (cm)	0.03 0.5	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa		Height (cm)	0.03 0.5 1	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica		Height (cm)	0.03 0.5 1 0.01	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca		Height (cm)	0.03 0.5 1 0.01 0.03	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea		Height (cm)	0.03 0.5 1 0.01 0.03 0.01	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris		Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa		Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa Codonocarpus cotinifolius	loides	Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01 0.05	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa Codonocarpus cotinifolius Corchorus sidoides subsp. sid	loides	Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01 0.05 0.03	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa Codonocarpus cotinifolius	loides	Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01 0.05	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa Codonocarpus cotinifolius Corchorus sidoides subsp. sid Corchorus tridens Dysphania rhadinostachya Eucalyptus victrix		Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01 0.05 0.03 0.02	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa Codonocarpus cotinifolius Corchorus sidoides subsp. sid Corchorus tridens Dysphania rhadinostachya		Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01 0.05 0.03 0.02 0.01	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa Codonocarpus cotinifolius Corchorus sidoides subsp. sid Corchorus tridens Dysphania rhadinostachya Eucalyptus victrix Gomphrena affinis subsp. pilb		Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01 0.05 0.03 0.02 0.01	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa Codonocarpus cotinifolius Corchorus sidoides subsp. sid Corchorus tridens Dysphania rhadinostachya Eucalyptus victrix Gomphrena affinis subsp. pilb Polycarpaea longiflora Portulaca oleracea		Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01 0.05 0.03 0.02 0.01 1 0.01 0.01	% DC
Species Acacia ancistrocarpa Acacia citrinoviridis Acacia pruinocarpa Aerva javanica Atalaya hemiglauca Boerhavia coccinea Cenchrus ciliaris Cleome viscosa Codonocarpus cotinifolius Corchorus sidoides subsp. sid Corchorus tridens Dysphania rhadinostachya Eucalyptus victrix Gomphrena affinis subsp. pilb		Height (cm)	0.03 0.5 1 0.01 0.03 0.01 25 0.01 0.05 0.03 0.02 0.01 1 0.01	% DC





Plot:	A053	Camera	brons camera	<u> </u>
Date:	14.4.11	Photo #	680	I
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	<u> </u>
Initials:	bn	Photo # revisit	Ib0415	lb0416
Initials revisit:	SC / LB			100410
		Soils	sand loams	T
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	rocks on surfa	ace
NW Easting:	739394	Outcrop:		
NW Northing:	7488046	Outcrop Type:		
SE Easting:	739443	Litter cover (%)		
SE Northing:	7487994	Logs	Twigs	Leaves
Topography:	mac	3	2	20
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	15
Time since fire (yrs):	>5	Mid	400	5
Disturbance:	low	Lower	100	10
Condition:	very good	Bare ground (%):	55	
Observations	floodplain	(///		
Species	1	Height (cm)	% AC	% DC
Abutilon lepidum sensl.		3 7 (4 7	0.03	
Acacia citrinoviridis			20	
Acacia pyrifolia var. pyrifolia			0.05	
Amaranthus undulatus			0.01	
Amyema fitzgeraldii			0.03	
Aristida contorta			0.01	
Aristida holathera			0.01	
Atalaya hemiglauca			0.5	
Boerhavia coccinea			0.03	
Cenchrus ciliaris			5	
Cleome viscosa			0.055	
Clerodendrum floribundum var	. angustifolium	150	0.05	
Corchorus crozophorifolius			8	
Duperreya commixta			0.1	
Enneapogon robustissimus			0.05	
Eriachne pulchella subsp. dom	ninii		0.02	
Eucalyptus victrix			4	
Euphorbia ?australis		20	0.01	
Euphorbia biconvexa		30	0.01	
Gomphrena cunninghamii			0.01	
Gossypium robinsonii			0.05 0.02	
Hybanthus aurantiacus Indigofera monophylla			0.02	
Notoleptopus decaisnei			0.03	
Phyllanthus maderaspatensis			0.01	
Polycarpaea longiflora			0.01	
Ptilotus obovatus var. obovatu	S		0.05	
Solanum sturtianum			0.01	
Tephrosia rosea var. glabrior			0.03	
Triodia epactia			1	





Plot:	A054	Camera	brons camera	a
Date:	14.4.11	Photo #	682	<u> </u>
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Initials:	bn	Photo # revisit	lb0455	lb0456
Initials revisit:	SC / LB	Soils	clay loams	.50.00
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	+	rea brown	<u>l</u>
		Soil comments:		1
NW Easting:	740071	Outcrop:		
NW Northing:	7490575	Outcrop Type:		
SE Easting:	740121	Litter cover (%)		Т.
SE Northing:	7490527	Logs	Twigs	Leaves
Topography:	flat			3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	400	3
Disturbance:	low	Lower	50	35
Condition:	very good -excellent	Bare ground (%):	60	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon lepidum			0.01	
Acacia dictyophleba			0.4	
Acacia inaequilatera			2	
Acacia pruinocarpa			1	
Acacia synchronicia			0.1	
Aristida contorta			0.01	
Aristida holathera var. h	nolathera		0.01	
Boerhavia coccinea			0.03	
Bulbostylis barbata			0.01	
Cenchrus ciliaris			5	
Corchorus sidoides sub	sp. sidoides		0.01	
Dysphania sp.			0.01	
Eragrostis eriopoda			0.01	
Eriachne aristidea			0.01	
Euphorbia ?australis			0.01	
Euphorbia boophthona Gomphrena affinis subs	n nilharansis		0.02	
Goodenia microptera	אווימו פווטוט		0.01 0.001	
Mollugo molluginea			0.001	
	1	-	0.01	-
Polycarpaea corymbosa			0.01	
Portulaca oleracea Pterocaulon sp.			0.01	
Ptilotus exaltatus var. exaltatus		1	0.01	
Sclerolaena cornishiana			0.01	
Senna artemisioides subsp. oligophylla x helmsii			0.01	
Senna notabilis			0.01	
Solanum lasiophyllum			0.02	
Sporobolus australasicu			0.01	
Trichodesma zeylanicur	n var. zeylanicum		0.01	
Triodia epactia			25	





Plot:	A055	Camera	brons camera	1
Date:	14.4.11	Photo #	685	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r
Initials:	bn	Photo # revisit	lb0461	lb0462
Initials revisit:	SC / LB	Soils	clay loams	•
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	737981	Outcrop:		
NW Northing:	7492719	Outcrop Type:		
SE Easting:	738031	Litter cover (%)		
SE Northing:	7492669	Logs	Twigs	Leaves
Topography:	flat	3	1	4
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	8
Time since fire (yrs):	>5	Mid	200	1
Disturbance:	high	Lower	50	30
Condition:	poor	Bare ground (%):	55	
Observations	undulating swale			
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis			0.5	
Acacia pruinocarpa			2	
Aerva javanica			0.02	
Atalaya hemiglauca			0.06	
Cenchrus ciliaris			25	
Codonocarpus cotinifolio	us		0.02	
Corchorus tridens			0.03	
Corymbia hamersleyana			1	
Cucumis maderaspatanus			0.01	
Duperreya commixta			0.05	
Eucalyptus victrix		400	5	
Hakea lorea subsp. lore		130	0.04	
Hakea lorea subsp. lorea Malvastrum americanum			0.5 0.01	
Ptilotus obovatus	1		0.01	
Solanum lasiophyllum			0.02	
Solarium lasiophyllum			0.01	





Date 15/04/2011	Plot:	A056	Comoro	hrana samara	
Date revisit:					i I
Initials:					<u> </u>
Initials revisit: SC / LB Soils clay loams					
Soil colour: red brown 00					100450
Datum: GDA94 Soil comments: NW Easting: 739713 Outcrop:				-	ı
NW Northing: 739713				red brown 00	
NW Northing: 7491917 Outcrop Type:		GDA94	Soil comments:		_
SE Easting: 739765 Litter cover (%) SE Northing: Leaves SE Northing: 7491866 Logs Twigs Leaves Topography: flat 1 2 Aspect: STRATA Ht (cm) % Cover Slope: Upper 600 2 Time since fire (yrs): -5 Mid 300 2 Disturbance: low Lower 100 20 2 Condition: excellent Bare ground (%): 75 O 0 Observations Species Height (cm) % AC % DC % DC Acacia aneura 0.03 0.03 Acacia inaequilatera 0.5 Acacia inaequilatera 0.5 Acacia inaequilatera 0.5 Acacia inaequilatera 0.5 Acacia inaequilatera 0.01 Acacia inaequilatera 0.01 0.01 0.01	NW Easting:	739713	•		
SE Northing: 7491866 Logs Twigs Leaves	NW Northing:	7491917	Outcrop Type:		
Topography: flat	SE Easting:	739765	Litter cover (%)		
Topography: flat	SE Northing:	7491866	Logs	Twigs	Leaves
STRATA	Topography:	flat			2
Upper 600 2			STRATA	Ht (cm)	% Cover
Time since fire (yrs): >5 Mild 300 2 Disturbance: low Lower 100 20 Condition: excellent Bare ground (%): 75 Observations					
Disturbance:		>5			
Secondition:					_
Species Height (cm) % AC % DC					20
Species		CAUGIIGIIL	Daie giounu (70):	13	<u> </u>
Acacia aneura			Height (cm)	% AC	% DC
Acacia citrinoviridis 0.5 Acacia inaequilatera 2 Acacia pruinocarpa 0.5 Aristida contorta 0.01 Aristida holathera 0.01 Boerhavia coccinea 0.022 Cenchrus cillaris 3 Chrysopogon fallax 0.01 Cleome viscosa 0.01 Corchorus sidoides subsp. sidoides 0.01 Corchorus sidoides subsp. sidoides 0.01 Corymbia hamersleyana 2 Cucumis maderaspatanus 0.01 Enchylaena tomentosa 0.02 Eragrostis eriopoda 0.02 Eragrostis eriopoda 0.02 Eremophila forrestii ?subsp. forrestii 0.03 Eriachne aristidea 0.01 Euphorbia ?australis 0.01 Euphorbia Posophthona 0.01 Goodenia prostrata 0.01 Hakea lorea subsp. lorea 0.05 Hibiscus sturtii var. platychlamys 0.01 Perotis rara 0.01 Polycarpaea corymbosa 0.01 Petrocaulon serrulatum	•		ricigit (om)		
Acacia inaequilatera 2 Acacia pruinocarpa 0.5 Aristida contorta 0.01 Aristida holathera 0.01 Boerhavia coccinea 0.022 Cenchrus ciliaris 3 Chrysopogon fallax 0.01 Cleome viscosa 0.01 Corchorus sidoides subsp. sidoides 0.01 Corriba hamersleyana 2 Cucumis maderaspatanus 0.01 Enchylaena tomentosa 0.02 Eragrostis eriopoda 0.02 Erremophila forrestii ?subsp. forrestii 0.03 Eriachne aristidea 0.01 Euphorbia ?australis 0.01 Euphorbia Postratal 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Hakea lorea subsp. lorea 0.05 Hibiscus sturtii var. platychlamys 0.01 Perotis rara 0.01 Perotaena corrishiana 0.01 Sclerolaena comishiana 0.01 Sclerolaena comishiana 0.01 Scenna artemisioi					
Acacia pruinocarpa 0.5 Aristida contorta 0.01 Aristida holathera 0.01 Boerhavia coccinea 0.022 Cenchrus ciliaris 3 Chrysopogon fallax 0.01 Cleome viscosa 0.01 Corchorus sidoides subsp. sidoides 0.01 Corymbia hamersleyana 2 Cucumis maderaspatanus 0.01 Enchylaena tomentosa 0.02 Eragrostis eriopoda 0.02 Eramophila forrestii ?subsp. forrestii 0.03 Eriachne aristidea 0.01 Euphorbia ?australis 0.01 Euphorbia boophthona 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Hakea lorea subsp. lorea 0.05 Hibiscus sturtii var. platychlamys 0.01 Perotis rara 0.01 Polycarpaea corymbosa 0.01 Peterocaulon serrulatum 0.01 Pitlotus helipteroides 0.01 Sclerolaena cornishiana 0.01 Scerolaen					
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Tribulus macrocarpus 0.01					
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monodooma zoyianioani van zoyianioani	Trichodesma zeylanicum var.	zeylanicum		0.01	

Triodia epactia	18	





In .	I. o.==		1.	
Plot:	A057	Camera	brons camera	
Date:	15.4.11	Photo #	691	
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	BN / SC	Photo # revisit	lb0110	lb0111
Initials revisit:	SC / LB	Soils	sand loams	1
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		•
NW Easting:	747994	Outcrop:		
NW Northing:	7483418	Outcrop Type:		
SE Easting:	748045	Litter cover (%)		
SE Northing:	7483368	Logs	Twigs	Leaves
Topography:	flat		3	7
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	500	3
Time since fire (yrs):	3 to 5	Mid	300	4
Disturbance:	low	Lower	100	20
Condition:	excellent	Bare ground (%):	70	
Observations				
Species		Height (cm)	% AC	% DC
Acacia dictyophleba			0.05	
Acacia inaequilatera			0.2	
Acacia pachyacra			0.03	
Acacia tumida var. pilbarensis			0.05	
Aristida holathera var. holather	a		1	
Boerhavia coccinea			0.03	
Cenchrus ciliaris			0.05	
Cleome viscosa			0.03	
Corchorus sidoides subsp. sido	oides		0.3	
Corymbia hamersleyana			3	
Cucumis maderaspatanus			0.01	
Cymbopogon obtectus			0.03	
Dicrastylis cordifolia Eragrostis eriopoda			0.05	
Eragrostis eriopoda Eremophila longifolia			1	
Euphorbia ?australis			0.01	
Euphorbia biconvexa			0.01	
Goodenia microptera			0.01	
Gossypium australe		100	0.05	
Grevillea wickhamii subsp. hisp	oidula			
Hakea lorea subsp. lorea			3	
Hibiscus sturtii var. platychlam	ys		0.1	
Hybanthus aurantiacus		20	0.01	
Hybanthus aurantiacus			0.001	
Indigofera colutea		20	0.01	
Indigofera georgei		80	0.01	
Mollugo molluginea			0.01	
Paraneurachne muelleri			0.2	
Poaceae sp. Ptilotus exaltatus var. exaltatus			0.01	
Ptilotus exaitatus var. exaitatus Ptilotus polystachyus	•		2	
Rhyncharrhena linearis			0.01	
Rhynchosia minima			0.01	
Salsola australis			0.01	
Scaevola parvifolia subsp. parv			0.03	
Senna artemisioides subsp. oli			0.03	
Senna artemisioides subsp. oli	gophylla ? x helmsii		0.05	
Senna notabilis			0.03	
Sida sp. Trianthema pilosa			0.05	
Tribulus macrocarpus			0.03	
Trichodesma zeylanicum var. z	zeylanicum		0.01	
Triodia epactia			1	
Triodia schinzii			10	
Yakirra australiensis			0.01	

Acacia dictyophleba	0.05	





Plot:	A058	Camera	brons camer	2
Date:	15.4.11	Photo #	693	
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	bn	Photo # revisit	lb0120 lb0121	
Initials revisit:	SC / LB	Soils	l l	
Zone:	50		sand loams	I
		Soil colour:	red brown	
Datum:	GDA94	Soil comments:	1	I
NW Easting:	746840	Outcrop:		
NW Northing:	7483856	Outcrop Type:		
SE Easting:	746889	Litter cover (%)		1
SE Northing:	7483806	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	2 to 3	Mid	400	3
Disturbance:	low	Lower	120	30
Condition:	excellent	Bare ground (%):	65	
Observations			•	
Species		Height (cm)	% AC	% DC
Acacia bivenosa			0.02	
Acacia dictyophleba			0.03	
Acacia pachyacra			0.01	
Acacia pruinocarpa			0.03	
Acacia sclerosperma subsp. sclerosperma		300		
Anthobolus leptomerioid			0.03	
Aristida holathera var. I	nolathera		0.01	
Bonamia rosea			0.01	
Cleome viscosa			0.01	
Cymbopogon obtectus			0.01	
Dicrastylis cordifolia			0.03	
Eragrostis eriopoda		00	0.01	
Eriachne helmsii		60	0.01	
Hakea chordophylla			0.01	
Hybanthus aurantiacus Indigofera monophylla			0.01	
Petalostylis labicheoide	<u> </u>		0.5	
Poaceae sp.	<u> </u>	60	0.01	
Poaceae sp.			0.01	
Scaevola parvifolia sub	sp. <i>parvifolia</i>		0.05	
Senna notabilis	. ,		0.01	
Trianthema pilosa			0.03	
Triodia epactia			0.01	
Triodia schinzii			30	





Plot:	A059	Camera	brons camera	1
Date:	15.4.11	Photo #	695	
Date revisit:	1/07/2011	Camera revisit	N/A	
Initials:	bn	Photo # revisit	-	
Initials revisit:	SC / LB	Soils	sand loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	100 5101111	
NW Easting:	726297	Outcrop:		
NW Northing:	7504448	Outcrop Type:		
SE Easting:	726347	Litter cover (%)		
SE Northing:	7504400	` '	Twigo	Lagyaga
Topography:	flat	Logs	Twigs	Leaves
	liai	OTD ATA	1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:	0.1.0	Upper	000	0
Time since fire (yrs):	2 to 3	Mid	300	2
Disturbance:	low	Lower	70	35
Condition:	excellent	Bare ground (%):	60	
Observations			0/ 10	% DC
Species		Height (cm)	% AC	70 DC
Acacia ancistrocarpa			1	
Acacia dictyophleba			0.3	
Acacia inaequilatera			0.05	
Acacia pachyacra			0.1	
Acacia sclerosperma subs			0.5	
Aristida holathera var. holathera		00	0.03	
Aristida inaequiglumis Boerhavia coccinea		90	0.03	
Bonamia rosea			0.01	
Cenchrus ciliaris			0.05	
Cleome viscosa			0.01	
Corchorus sidoides subsp	o. sidoides		0.2	
Dicrastylis cordifolia			0.03	
Eragrostis eriopoda			0.05	
Eucalyptus gamophylla			0.03	
Euphorbia ?australis			0.01	
Gomphrena affinis subsp.	pilbarensis		0.01	
Gossypium australe			0.01	
Grevillea wickhamii subsp	o. hispidula		0.05	
Hakea lorea subsp. lorea			0.03	
Indigofera monophylla			0.03	
Ptilotus exaltatus var. exaltatus			0.01	
Ptilotus polystachyus			2	
Senna notabilis			0.01	
Sida sp.			0.01	
Solanum lasiophyllum			0.01	
Trianthema pilosa Tribulus macrocarpus			0.03 0.01	
Trichodesma zeylanicum	var. zevlanicum		0.01	
Triodia ? basedowii		70	25	
Triodia basedowii			30	





Plot:	A060	Camara	hrone comerc	<u> </u>
Date:	15.4.11	Camera Photo #	brons camera 697	
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	BN / SC	Photo # revisit		
Initials revisit:	SC / LB			
		Soils	sand loams	I
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		·
NW Easting:	725297	Outcrop:		
NW Northing:	7504628	Outcrop Type:		
SE Easting:	725347	Litter cover (%)		
SE Northing:	7504579	Logs	Twigs	Leaves
Topography:	flat		3	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	500	1
Time since fire (yrs):	3 to 5	Mid	250	3
Disturbance:	low	Lower	50	30
Condition:	excellent	Bare ground (%):	65	
Observations		, ,		
Species	•	Height (cm)	% AC	% DC
Abutilon lepidum			0.01	
Acacia ancistrocarpa			0.03	
Acacia inaequilatera			2	
Acacia sclerosperma su	ıbsp. <i>sclerosperma</i>	l	0.5	
Aristida contorta	· · · · · · · · · · · · · · · · · · ·		0.01	
Aristida holathera var. holathera			0.03	
Aristida inaequiglumis			0.03	
Atalaya hemiglauca			0.01	
Boerhavia coccinea			0.01	
Bonamia rosea			3	
Cenchrus ciliaris			1	
Corchorus sidoides sub	sp. sidoides		0.05	
Corymbia hamersleyana	7		1	
Cymbopogon obtectus			0.03	
Dicrastylis cordifolia			0.05	
Dysphania rhadinostach	iya		0.01	
Eragrostis eriopoda			0.02	
Eriachne aristidea			0.01	
Eucalyptus gamophylla			0.5	
Euphorbia biconvexa Gomphrena affinis subs	n nilharansis		0.01 0.01	
Goodenia microptera	יף. אווטמו פווטוט		0.01	
Goodeniaceae sp.		15	0.01	
Hakea lorea subsp. lore	ea	10	0.01	
Indigofera monophylla			0.03	
Ptilotus astrolasius			0.5	
Ptilotus astrolasius Ptilotus exaltatus var. exaltatus			0.03	
Ptilotus obovatus			0.02	
Scaevola parvifolia subs	sp. <i>parvifolia</i>		0.03	
Senna glutinosa subsp.			0.01	
Senna notabilis			0.01	
Sida sp.			0.01	
Sporobolus australasicu	'S		0.01	
Trianthema pilosa			0.03	
Tribulus macrocarpus			0.01	
Triodia basedowii			25	





Plot:	A061	Camera	brons camera	
Date:	15.4.11	Photo #	700	
Date revisit:		Camera revisit	Lisa Banniste	r
Initials:	bn	Photo # revisit	lb0672	lb0673
Initials revisit:	SC / LB	Soils	sand loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	724597	Outcrop:		
NW Northing:	7505461	Outcrop Type:		
SE Easting:	724645	Litter cover (%)		
SE Northing:	7505410	Logs	Twigs	Leaves
Topography:	flat		1	1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	400	1
Time since fire (yrs):	3 to 5	Mid	250	3
Disturbance:	low	Lower	50	25
Condition:	excellent	Bare ground (%):	70	20
Observations	CXCCIICITE	Bare ground (70).	70	
Species		Height (cm)	% AC	% DC
Acacia adsurgens		50	0.01	75 - 5
Acacia ancistrocarpa			0.05	
Acacia aneura			1	
Acacia inaequilatera			3	
Acacia sclerosperma subsp. sc	elerosperma		0.3	
Acacia sclerosperma subsp. sc	•		0.1	
Anthobolus leptomerioides	,		0.03	
Aristida holathera var. holather	а		0.01	
Aristida inaequiglumis			0.02	
Bonamia rosea			2	
Corchorus sidoides subsp. sido	oides		0.05	
Dicrastylis cordifolia			0.3	
Eragrostis eriopoda			0.01	
Eucalyptus gamophylla			0.5	
Euphorbia alsiniflora			0.01	
Euphorbia boophthona	ua ma ia		0.01	
Goodonia migrantara	rerisis		0.01	
Goodenia microptera			0.01	
Hakea lorea subsp. lorea			0.01	
Indigofera monophylla Petalostylis labicheoides			3	
Poaceae sp.			0.01	
Ptilotus astrolasius			0.03	
Ptilotus polystachyus			0.03	
Rhyncharrhena linearis			0.03	
Scaevola parvifolia subsp. parv	vifolia		1	
Sida sp.			0.01	
Solanum lasiophyllum			0.01	
Triodia basedowii			15	





Plot:	A062	Camera	brons camera	a
Date:	16.4.11	Photo #	702	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Initials:	bn	Photo # revisit	lb0190	lb0191
Initials revisit:	SC / LB	Soils	sand loams	•
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	748983	Outcrop:		
NW Northing:	7482014	Outcrop Type:		
SE Easting:	749034	Litter cover (%)		
SE Northing:	7481966	Logs	Twigs	Leaves
Topography:	flat		1	4
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	3 to 5	Mid	250	2
Disturbance:	low	Lower	150	35
Condition:	excellent	Bare ground (%):	60	
Observations				
Species		Height (cm)	% AC	% DC
Acacia pachyacra			0.3	
Acacia sclerosperma su			0.05	
Acacia tumida var. pilba			0.03	
Aristida holathera var. h	nolathera		0.3	
Bonamia rosea			0.05	
Corchorus sidoides sub	•		0.03	
Corymbia hamersleyana	9		0.5	
Dicrastylis cordifolia			0.1	
Eragrostis eriopoda			0.4	
,	on highidula		0.1	
Grevillea wickhamii sub			0.05	
Grevillea wickhamii sub Hakea lorea subsp. lore	ea .		0.05 0.05	
Grevillea wickhamii sub Hakea lorea subsp. lore Petalostylis labicheoides	ea .		0.05 0.05 0.05	
Grevillea wickhamii sub Hakea lorea subsp. lore Petalostylis labicheoides Poaceae sp.	ea .		0.05 0.05 0.05 0.03	
Grevillea wickhamii sub Hakea lorea subsp. lore Petalostylis labicheoides	ea S		0.05 0.05 0.05 0.03 0.01	
Grevillea wickhamii sub Hakea lorea subsp. lore Petalostylis labicheoides Poaceae sp. Ptilotus polystachyus	ea S		0.05 0.05 0.05 0.03	
Grevillea wickhamii sub Hakea lorea subsp. lore Petalostylis labicheoides Poaceae sp. Ptilotus polystachyus Scaevola parvifolia subs	ea S		0.05 0.05 0.05 0.03 0.01 0.03	
Grevillea wickhamii sub Hakea lorea subsp. lore Petalostylis labicheoides Poaceae sp. Ptilotus polystachyus Scaevola parvifolia subs Sida sp.	ea S		0.05 0.05 0.05 0.03 0.01 0.03 0.02	





Plot:	A063	Camera	brons came	ra
Date:	16.4.11	Photo #	708	
Date revisit:	1/07/2011	Camera revisit	Lisa Bannister	
Initials:	bn	Photo # revisit	lb0171	lb0172
Initials revisit:	SC / LB	Soils	sand loams	•
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		•
NW Easting:	749590	Outcrop:		
NW Northing:	7481723	Outcrop Type:		•
SE Easting:	749640	Litter cover (%)		
SE Northing:	7481673	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	2 to 3	Mid	300	3
Disturbance:	low	Lower	60	20
Condition:	excellent	Bare ground (%):	75	
Observations	boundary with	•	•	•
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa			0.03	
Acacia dictyophleba			0.1	
Acacia pachyacra			0.1	
Bonamia rosea			0.03	
Corchorus sidoides subsp. s	sidoides		0.03	
Dicrastylis cordifolia			0.1	
Eragrostis eriopoda			1	
Grevillea wickhamii subsp. h	піѕрідиіа		0.03	
Hakea lorea subsp. lorea			2	
Paraneurachne muelleri			0.03	
Petalostylis labicheoides Ptilotus astrolasius			0.01	
Scaevola parvifolia subsp. p	narvifolia		0.01	
Senna notabilis	ai vii Olia		0.1	
LOGITICA FIOLICIONIA				1
			10.05	
Sida sp.			0.05	
			0.05 0.3 15	





Plot:	A064	Camera	hrana samara	
			brons camera	
Date:	16.4.11	Photo #	710	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r
Initials:	BN / SC	Photo # revisit	lb0504	lb0505
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	730829	Outcrop:		
NW Northing:	7499988	Outcrop Type:		
SE Easting:	730880	Litter cover (%)		
SE Northing:	7499937	Logs	Twigs	Leaves
Topography:	flat			3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	200	1
Disturbance:	low	Lower	50	25
Condition:		Bare ground (%):	75	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa			1	
Acacia inaequilatera			0.1	
Acacia pachyacra			0.05	
Bonamia rosea		30	0.03	
Dicrastylis cordifolia			0.03	
Gossypium australe			0.01	
Ptilotus obovatus			0.01	
Triodia basedowii			25	





Plot:	A065	Camera	brons camera	ı
Date:	16.4.11	Photo #	712	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r
Initials:	BN / SC	Photo # revisit	lb0511	lb0512
Initials revisit:	SC / LB	Soils	sand loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	729618	Outcrop:		
NW Northing:	7501233	Outcrop Type:		
SE Easting:	729668	Litter cover (%)		
SE Northing:	7501183	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	200	1
Disturbance:	low	Lower	50	35
Condition:	excellent	Bare ground (%):	65	
Observations				
Species		Height (cm)	% AC	% DC
Acacia pachyacra			1	
Acacia synchronicia			0.1	
Aristida contorta			0.01	
Bonamia rosea			0.1	
Cleome viscosa			0.01	
Corchorus sidoides sub	sp. <i>sidoides</i>		0.01	
Dicrastylis cordifolia			0.03	
Eriachne aristidea			0.01	
Hakea lorea subsp. lorea			0.1	
Scaevola parvifolia subsp. parvifolia Senna artemisioides subsp. oligophylla			0.01 0.02	
Senna notabilis			0.02	
Trianthema pilosa			0.01	
Trichodesma zeylanicum	n var. zeylanicum		0.01	
Triodia basedowii	<u> </u>		0.01	
Triodia basedowii			35	





Dist	Lance	0	T	ı
Plot:	A066	Camera		
Date:	16.4.11	Photo #	714	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	
Initials:	bn	Photo # revisit	lb0519	lb0510
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	729305	Outcrop:		
NW Northing:	7502117	Outcrop Type:		
SE Easting:	729355	Litter cover (%)		
SE Northing:	7502068	Logs	Twigs	Leaves
Topography:	7002000	Logo	3	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:			Ht (CIII)	/₀ Covei
Time since fire (yrs):	. <i>E</i>	Upper	200	4
	>5	Mid	300	_
Disturbance:	low	Lower	80	40
Condition:	excellent	Bare ground (%):	50	
Observations		In the second	1 0/ 10	% DC
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa			1	
Acacia citrinoviridis			0.02	
Acacia dictyophleba			0.1	
Acacia pachyacra			3	
Acacia synchronicia			0.1	
Aristida contorta			0.01	
Aristida holathera var. h	olathera		0.3	
Aristida inaequiglumis			0.01	
Bonamia rosea			0.05	
Cleome viscosa			0.01	
Corchorus sidoides sub	•		0.01	
Cucumis maderaspatan	US		0.05	
Eragrostis eriopoda			0.01	
Eriachne aristidea			0.01	
Euphorbia alsiniflora Grevillea wickhamii sub	en hienidula		0.01 0.01	
Hakea lorea subsp. lore	· · · · · · · · · · · · · · · · · · ·		0.5	
Indigofera monophylla	ia		0.02	
Mollugo molluginea			0.02	
Paraneurachne muelleri	;		0.02	
			0.03	
Ptilotus polystachyus Scaevola parvifolia subsp. parvifolia		+	0.03	
Senna artemisioides subsp. oligophylla		+	0.06	
Senna notabilis	Sop. Ongophyna		0.00	
Sida sp.			0.01	
Solanum lasiophyllum		+	0.5	
Trianthema pilosa		+	0.03	
Tribulus macrocarpus			0.01	
Trichodesma zeylanicur	n		0.02	
Triodia basedowii			35	
Triodia schinzii			0.5	





Plot:	A067	Camera	brons camera	
Date:	16.4.11	Photo #	716	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r
Initials:	bn	Photo # revisit	lb0532	lb0533
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	727732	Outcrop:		
NW Northing:	7502666	Outcrop Type:		
SE Easting:	727782	Litter cover (%)		
SE Northing:	7502617	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:	_	Upper		
Time since fire (yrs):	2 to 3	Mid	300	1
Disturbance:	low	Lower	50	20
Condition:	excellent	Bare ground (%):	75	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?sericophylla			0.2	
Acacia ancistrocarpa			0.1	
Acacia dictyophleba			0.05	
Acacia inaequilatera			0.1	
Acacia pachyacra			0.05	
Acacia sericophylla			0.2	
Aristida holathera var. h	olathera		0.1	
Aristida inaequiglumis			1	
Bonamia rosea			4	
Cleome viscosa Corchorus sidoides sub	en eidnidae	1	0.01	
Dicrastylis cordifolia	op. oldoldos	1	0.03 0.05	
Eragrostis eriopoda			0.03	
Goodenia microptera			0.01	
Hakea lorea subsp. lore	ea		0.1	
Hybanthus aurantiacus			0.01	
Indigofera monophylla			3	
Paraneurachne muelleri			0.1	
Ptilotus astrolasius			0.05	
Senna artemisioides sul	bsp. oligophylla		0.03	
Senna notabilis			0.01	
Trianthema pilosa			0.03	
Tribulus macrocarpus			0.03	
Triodia basedowii			15	





Plot:	A068	Camera	brons camera	1
Date:	17.4.11	Photo #	718	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r
Initials:	BN / SC	Photo # revisit	lb0508	lb0509
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	737484	Outcrop:		
NW Northing:	7493933	Outcrop Type:		
SE Easting:	737535	Litter cover (%)		
SE Northing:	7493883	Logs	Twigs	Leaves
Topography:	flat	3	1	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	800	20
Time since fire (yrs):	>5	Mid	300	2
Disturbance:	high	Lower	40	15
Condition:	poor	Bare ground (%):	65	
Observations				
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis			0.05	
Acacia pruinocarpa			15	
Aerva javanica			0.01	
Atalaya hemiglauca			5	
Cenchrus ciliaris			15	
Eucalyptus victrix		700		
Hakea lorea subsp. lore	ea		4	





Plot:	A069	Camera	brons camer	 a
Date:	16.4.11	Photo #	720	
Date revisit:	1/07/2011	Camera revisit	Lisa Bannist	er
Initials:	bn	Photo # revisit	lb463\	lb4634
Initials revisit:	SC / LB	Soils	sand loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	Ted blown	
NW Easting:	739650			I
		Outcrop:		
NW Northing:	7493472	Outcrop Type:		
SE Easting:	739700	Litter cover (%)		T -
SE Northing:	7493422	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	7
Time since fire (yrs):	>5	Mid	300	3
Disturbance:	low	Lower	60	15
Condition:	excellent	Bare ground (%):	75	
Observations			1	1
Species	•	Height (cm)	% AC	% DC
Abutilon lepidum		<u> </u>	0.01	
Acacia citrinoviridis			0.05	
Acacia inaequilatera			0.1	
Acacia pruinocarpa			4	
Aristida contorta			0.01	
Aristida holathera var. holath	era		0.03	
Boerhavia coccinea			0.03	
Bulbostylis barbata			0.01	
Cenchrus ciliaris			3	
Chrysopogon fallax			0.03	
Corymbia hamersleyana			2	
Cucumis maderaspatanus			0.03	
Enneapogon polyphyllus			0.01	
Eragrostis eriopoda			0.05	
Eriachne aristidea			0.01	
Gomphrena affinis subsp. pil	barensis		0.01	
Gossypium australe			0.01	
Hakea lorea subsp. lorea			0.03	
Hibiscus sturtii var. platychla	mys	1	0.01	
Indigofera linifolia		15	0.01	
Melhania oblongifolia			0.01	
Portulaca oleracea			0.01	
Ptilotus helipteroides			0.01	
Senna notabilis			0.05	
Solanum lasiophyllum			0.03	
Sporobolus australasicus Tephrosia supina			0.01 0.01	
Trianthema pilosa			0.01	
Tribulus macrocarpus			0.03	
Trichodesma zeylanicum var	. zeylanicum		0.01	
Triodia epactia	•		12	
Yakirra australiensis			0.01	





Plot:	A070	Camera	brons camer	a
Date:	16.4.11	Photo #	722	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Initials:	bn	Photo # revisit	lb0262	lb0263
Initials revisit:	SC / LB	Soils	clay loams	•
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:	shallow drain	nage line some small s
NW Easting:	743289	Outcrop:		
NW Northing:	7484475	Outcrop Type:		
SE Easting:	473339	Litter cover (%)		
SE Northing:	7484417	Logs	Twigs	Leaves
Topography:	mic		3	15
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	500	5
Time since fire (yrs):	>5	Mid	300	20
Disturbance:	high	Lower	50	60
Condition:	poor	Bare ground (%):	60	
Observations	ľ			•
Species	•	Height (cm)	% AC	% DC
Acacia aneura			0.03	
Acacia elachantha			4	
Acacia pyrifolia var. ?mo	orrisonii		10	
Atalaya hemiglauca			0.05	
Boerhavia coccinea			0.03	
Cenchrus ciliaris			20	
Chrysopogon fallax			0.1	
Cleome viscosa			0.01	
Corchorus sidoides subs	•		0.03	
Corymbia hamersleyana			5	
Cucumis maderaspatant			0.01	
Enneapogon polyphyllus			0.01	
Eremophila longifolia	•		0.03	
Eriachne helmsii			1	
Euphorbia ?australis			0.01	
Gossypium robinsonii			0.1	
Heliotropium tenuifolium			0.01	
Indigofera monophylla			0.03	
Portulaca oleracea			0.01	
Pterocaulon serrulatum			0.01	
Rhynchosia minima			0.01	
Themeda triandra		80	0.03	
Trichodesma zeylanicun	n var. zeylanicum		0.01	
Triodia epactia			2	





stones

Plot:	A071	Camera	brons camera)
Date:	16.4.11	Photo #	724	Ì
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	r er
Initials:	bn	Photo # revisit	lb0546	lb0547
Initials revisit:	SC / LB	Soil:	sand loams	11000 17
Zone:	50	Soil colour:	red brown	I
Datum:	GDA94	Soil comments:	ica biowii	l
NW Easting:	726685	Outcrop:		I
NW Northing:	7503581	Outcrop Type:		l
SE Easting:	726734	Litter cover (%)		
SE Northing:	7503532	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	110 (0111)	70 0010.
Time since fire (yrs):	2 to 3	Mid	300	2
Disturbance:	low	Lower	50	20
Condition:	excellent	Bare ground (%):		
Observations		<u> </u>	1	I
Species	•	Height (cm)	% AC	% DC
?Bonamia sp.		10	0.01	
Acacia ancistrocarpa	· · · · · · · · · · · · · · · · · · ·		0.02	
Acacia inaequilatera			0.05	
Acacia tetragonophylla			0.01	
Aristida contorta			0.01	
Aristida holathera var. h	nolathera		0.03	
Aristida inaequiglumis			0.01	
Bonamia rosea			3	
Corchorus sidoides sub	sp. sidoides		2	
Dicrastylis cordifolia			0.05	
Eragrostis eriopoda			0.05	
Eriachne aristidea			0.01	
Eucalyptus gamophylla			2	
Goodenia microptera			0.01	
Hakea lorea subsp. lore	ea		1	
Indigofera monophylla			0.03	
Paraneurachne mueller	i		0.01	
Ptilotus astrolasius			0.01	
Ptilotus exaltatus var. e	xaltatus		0.01	
Ptilotus obovatus			0.01	
Ptilotus polystachyus			0.03	
Senna artemisioides su	bsp. <i>oligophylla</i>		0.01	
Sida sp.			0.3	
Trianthema pilosa			0.01	
Tribulus macrocarpus			0.01	
Triodia basedowii			15	





Plot:	A072	Camera	brons camera	 a
Date:	16.4.11	Photo #	726	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Initials:	bn	Photo # revisit	lb0675	lb0676
Initials revisit:	SC / LB	Soils	sand loams	.1
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		•
NW Easting:	723793	Outcrop:		
NW Northing:	7505745	Outcrop Type:		.1
SE Easting:	723841	Litter cover (%)		
SE Northing:	7505693	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	2 to 3	Mid	300	5
Disturbance:	low	Lower	50	25
Condition:	excellent	Bare ground (%):	70	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa			0.03	
Acacia inaequilatera			2	
Anthobolus leptomerioid	les		0.03	
Bonamia rosea			3	
Corchorus sidoides sub	•		0.03	
Corymbia hamersleyana	9		0.5	
Dicrastylis cordifolia	_		0.05	
Enneapogon polyphyllus	S	1	0.01	
Eragrostis eriopoda		1	0.03	
Eucalyptus gamophylla Goodenia microptera			0.01	
Hakea lorea subsp. lore	<u></u>		0.01	
Indigofera monophylla			0.1	
Paraneurachne mueller	i		0.03	
Petalostylis labicheoides			2	
Ptilotus astrolasius			0.2	
Ptilotus exaltatus var. e.	xaltatus		0.03	
Ptilotus polystachyus			0.01	
Scaevola parvifolia sub			0.1	
Senna artemisioides su	bsp. <i>oligophylla</i>		0.05	
Sida sp.			0.03	
Triodia basedowii			20	<u> </u>





Plot:	A073	Camera	brons camera	
Date:	19.4.11	Photo #	729	
Date revisit:	N/A	Camera revisit		
Initials:	BN / SC	Photo # revisit		
Initials revisit:		Soils	loamy clay	
Zone:	50	Soil colour:	orange brown	
Datum:	GDA94	Soil comments:	surface grave	I
NW Easting:	743612	Outcrop:		
NW Northing:	7502613	Outcrop Type:		
SE Easting:	743663	Litter cover (%)		
SE Northing:	7502562	Logs	Twigs	Leaves
Topography:	flat		1	
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	500	1
Time since fire (yrs):	>5	Mid	250	1
Disturbance:	low	Lower	30	3
Condition:	excellent	Bare ground (%):	96	
Observations				
Species		Height (cm)	% AC	% DC
Acacia synchronicia			1	
Acacia xiphophylla			1	
Cleome viscosa			0.01	
Dactyloctenium radulans	S		0.01	
Dysphania sp.			0.01	
Enneapogon polyphyllus	S		0.01	
Goodenia prostrata			1	
Heliotropium inexplicitum		pr	0.01	
Portulaca oleracea			0.01	
Salsola australis			1	
Sclerolaena cornishiana			0.01	
Solanum lasiophyllum			0.03	
Sporobolus australasicus			0.01	
Tribulus macrocarpus			0.01	





Date 19.4.11	Plot:	A074	Camera	brons camer	 'a
Date revisit: N/A Camera revisit Initials: bn Photo # revisit Initials: bn Photo # revisit Initials: bn Photo # revisit Soils Clay Zone: 50 Soil colour: red brown Soil colour: Ted brown Soil comments: NW Easting: 744549 Outcrop: NW Horthing: 7502323 Outcrop Type: SE Easting: 744602 Litter cover (%) SE Northing: 7502273 Logs Twigs Leaves Topography: flat 5 5 10 Aspect: STRATA Ht (cm) % Cover Siope: Upper 600 35 Time since fire (yrs): 5 Mid 200 1 Disturbance: moderate Lower 25 8 Easting: Species Height (cm) % AC % DC Abution lepidum O.3 Acacia aneura 35 Species Species Height (cm) % AC % DC Abution lepidum O.3 Species Species					I
Initials:				751	
Initials revisit:					
Zone: 50 Soil colour: red brown				olov	
Datum: GDA94 Soil comments:					I
NW Easting: 744549				rea brown	
NW Northing: 7502323					T
SE Easting: 744602			•		
SE Northing: 7502273 Logs Twigs Leaves Topography: flat 5 5 10					
Topography: flat		744602	Litter cover (%)		
STRATA	SE Northing:	7502273	Logs	Twigs	Leaves
Stope: Upper 600 35	Topography:	flat	5	5	10
Time since fire (yrs): >5 Mid 200 1	Aspect:		STRATA	Ht (cm)	% Cover
Time since fire (yrs): >5 Mid 200 1	Slope:		Upper	600	35
Disturbance: moderate Lower 25 8	Time since fire (yrs):	>5		200	1
Condition: good Bare ground (%): 60		moderate	Lower	25	8
Name	Condition:				-
Species Height (cm) % AC % DC		9000		1 00	
Abutilon lepidum			Height (cm)	% AC	% DC
Acacia aneura 35	•		Jan (am)		
Bidens bipinnata 5 Blumea tenella 7 0.01 Boerhavia coccinea 0.03 Brachyscome sp. 15 0.01 Bulbostylis barbata 0.1 0.01 Bulbostylis barbata 0.01 0.01 Cenchrus ciliaris 0.01 0.01 Cleome viscosa 0.01 0.01 Cucumis maderaspatanus 0.05 0.05 Enteropogon ramosus 0.01 0.01 Eragrostis eriopoda 0.01 0.01 Eremophila lanceolata 0.01 0.01 Evolvulus alsinoides var. villosicalyx 0.01 0.01 Gomphrena affinis subsp. pilbarensis 0.01 0.01 Goodenia prostrata 0.01 0.01 Ipomoea muelleri 0.01 0.01 Nicotiana occidentalis subsp. obliqua 25 0.01 Perotis rara 0.01 0.01 Polycarpaea corymbosa 0.01 0.01 Portulaca oleracea 0.01 0.01 Psydrax latifolia 0.1	· ·			35	
Blumea tenella 7 0.01 Boerhavia coccinea 0.03 Brachyscome sp. 15 0.01 Bulbostylis barbata 0.01 Cenchrus ciliaris 0.01 Cleome viscosa 0.01 Cucumis maderaspatanus 0.05 Enteropogon ramosus 0.01 Eragrostis eriopoda 0.01 Eremophila lanceolata 0.01 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Ipomoea muelleri 0.01 Nicotiana occidentalis subsp. obliqua 25 Perotis rara 0.1 Polycarpaea corymbosa 0.01 Portulaca oleracea 0.01 Psydrax latifolia 0.1 Ptilotus gaudichaudii var. gaudichaudii 35 0.01 Senna notabilis 0.01 Solanum lasiophyllum 0.01 Spermacoce brachystema 10 0.01					
Boerhavia coccinea			7		
Brachyscome sp. 15 0.01 Bulbostylis barbata 0.1 Bulbostylis barbata 0.01 Cenchrus ciliaris 0.01 Cleome viscosa 0.01 Cucumis maderaspatanus 0.05 Enteropogon ramosus 0.01 Erneropogon ramosus 0.01 Eragrostis eriopoda 0.01 Eremophila lanceolata 0.01 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Ipomoea muelleri 0.01 Nicotiana occidentalis subsp. obliqua 25 Perotis rara 0.01 Polycarpaea corymbosa 0.01 Portulaca oleracea 0.01 Psydrax latifolia 0.1 Ptilotus gaudichaudii var. gaudichaudii 35 Senna notabilis 0.01 Solanum lasiophyllum 0.01 Spermacoce brachystema 10					
Bulbostylis barbata 0.1 Bulbostylis barbata 0.01 Cenchrus ciliaris 0.01 Cleome viscosa 0.01 Cucumis maderaspatanus 0.05 Enteropogon ramosus 0.01 Eragrostis eriopoda 0.01 Eremophila lanceolata 0.01 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Ipomoea muelleri 0.01 Nicotiana occidentalis subsp. obliqua 25 Perotis rara 0.01 Polycarpaea corymbosa 0.01 Portulaca oleracea 0.01 Psydrax latifolia 0.1 Ptilotus gaudichaudii var. gaudichaudii 35 Senna notabilis 0.01 Solanum lasiophyllum 0.01 Spermacoce brachystema 10			15		
Bulbostylis barbata 0.01 Cenchrus ciliaris 0.01 Cleome viscosa 0.01 Cucumis maderaspatanus 0.05 Enteropogon ramosus 0.01 Eragrostis eriopoda 0.01 Eremophila lanceolata 0.01 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Ipomoea muelleri 0.01 Nicotiana occidentalis subsp. obliqua 25 Perotis rara 0.01 Polycarpaea corymbosa 0.01 Portulaca oleracea 0.01 Portulaca oleracea 0.01 Pydrax latifolia 0.1 Ptilotus gaudichaudii var. gaudichaudii 35 0.01 Ptilotus polystachyus 0.01 Senna notabilis 0.01 Solanum lasiophyllum 0.01 Spermacoce brachystema 10 0.01	Bulbostylis barbata			0.1	
Cleome viscosa 0.01 Cucumis maderaspatanus 0.05 Enteropogon ramosus 0.01 Eragrostis eriopoda 0.01 Eremophila lanceolata 0.01 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Goodenia prostrata 0.01 Ipomoea muelleri 0.01 Nicotiana occidentalis subsp. obliqua 25 Perotis rara 0.1 Polycarpaea corymbosa 0.01 Portulaca oleracea 0.01 Psydrax latifolia 0.1 Ptilotus gaudichaudii var. gaudichaudii 35 Senna notabilis 0.01 Solanum lasiophyllum 0.01 Spermacoce brachystema 10				0.01	
Cucumis maderaspatanus0.05Enteropogon ramosus0.01Eragrostis eriopoda0.01Eremophila lanceolata0.01Evolvulus alsinoides var. villosicalyx0.01Gomphrena affinis subsp. pilbarensis0.01Goodenia prostrata0.01Ipomoea muelleri0.01Nicotiana occidentalis subsp. obliqua25Perotis rara0.1Polycarpaea corymbosa0.01Portulaca oleracea0.01Psydrax latifolia0.1Ptilotus gaudichaudii var. gaudichaudii35Senna notabilis0.01Solanum lasiophyllum0.01Spermacoce brachystema10	Cenchrus ciliaris			0.01	
Enteropogon ramosus Eragrostis eriopoda Eremophila lanceolata Evolvulus alsinoides var. villosicalyx Gomphrena affinis subsp. pilbarensis Goodenia prostrata Ipomoea muelleri Nicotiana occidentalis subsp. obliqua Perotis rara Polycarpaea corymbosa Portulaca oleracea Psydrax latifolia Ptilotus gaudichaudii var. gaudichaudii Senna notabilis Solanum lasiophyllum Spermacoce brachystema 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	Cleome viscosa			0.01	
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Eremophila lanceolata Evolvulus alsinoides var. villosicalyx Gomphrena affinis subsp. pilbarensis Goodenia prostrata Ipomoea muelleri Nicotiana occidentalis subsp. obliqua Perotis rara Polycarpaea corymbosa Portulaca oleracea Posydrax latifolia Ptilotus gaudichaudii var. gaudichaudii Senna notabilis Solanum lasiophyllum Spermacoce brachystema 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	Enteropogon ramosus			0.01	
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Gomphrena affinis subsp. pilbarensis Goodenia prostrata Ipomoea muelleri Nicotiana occidentalis subsp. obliqua Perotis rara Polycarpaea corymbosa Portulaca oleracea Posydrax latifolia Ptilotus gaudichaudii var. gaudichaudii Senna notabilis Solanum lasiophyllum Spermacoce brachystema 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	<u> </u>			0.01	
Goodenia prostrata Ipomoea muelleri Nicotiana occidentalis subsp. obliqua 25 0.01 Perotis rara 0.1 Polycarpaea corymbosa Portulaca oleracea 0.01 Psydrax latifolia Ptilotus gaudichaudii var. gaudichaudii 35 0.01 Ptilotus polystachyus Senna notabilis Solanum lasiophyllum Spermacoce brachystema 0.01 0.01 0.01 0.01					
Ipomoea muelleri0.01Nicotiana occidentalis subsp. obliqua250.01Perotis rara0.1Polycarpaea corymbosa0.01Portulaca oleracea0.01Psydrax latifolia0.1Ptilotus gaudichaudii var. gaudichaudii350.01Ptilotus polystachyus0.01Senna notabilis0.01Solanum lasiophyllum0.01Spermacoce brachystema100.01		oilbarensis			
Nicotiana occidentalis subsp. obliqua 25 0.01 Perotis rara 0.1 Polycarpaea corymbosa 0.01 Portulaca oleracea 0.01 Psydrax latifolia 0.1 Ptilotus gaudichaudii var. gaudichaudii 35 0.01 Ptilotus polystachyus 0.01 Senna notabilis 0.01 Spermacoce brachystema 10 0.01	· · · · · · · · · · · · · · · · · · ·				
Perotis rara 0.1 Polycarpaea corymbosa 0.01 Portulaca oleracea 0.01 Psydrax latifolia 0.1 Ptilotus gaudichaudii var. gaudichaudii 35 0.01 Ptilotus polystachyus 0.01 Senna notabilis 0.01 Solanum lasiophyllum 0.01 Spermacoce brachystema 10 0.01	•				
Polycarpaea corymbosa0.01Portulaca oleracea0.01Psydrax latifolia0.1Ptilotus gaudichaudii var. gaudichaudii350.01Ptilotus polystachyus0.01Senna notabilis0.01Solanum lasiophyllum0.01Spermacoce brachystema100.01		p. obliqua	25		
Portulaca oleracea 0.01 Psydrax latifolia 0.1 Ptilotus gaudichaudii var. gaudichaudii 35 0.01 Ptilotus polystachyus 0.01 Senna notabilis 0.01 Solanum lasiophyllum 0.01 Spermacoce brachystema 10 0.01					
Psydrax latifolia0.1Ptilotus gaudichaudii var. gaudichaudii350.01Ptilotus polystachyus0.01Senna notabilis0.01Solanum lasiophyllum0.01Spermacoce brachystema100.01					
Ptilotus gaudichaudii var. gaudichaudii350.01Ptilotus polystachyus0.01Senna notabilis0.01Solanum lasiophyllum0.01Spermacoce brachystema100.01					
Ptilotus polystachyus0.01Senna notabilis0.01Solanum lasiophyllum0.01Spermacoce brachystema100.01			25		
Senna notabilis0.01Solanum lasiophyllum0.01Spermacoce brachystema100.01			35		
Solanum lasiophyllum0.01Spermacoce brachystema100.01					
Spermacoce brachystema 10 0.01					
	, ,		10		
	Sporobolus australasicus		10	0.01	
Streptoglossa sp. 0.01	·				





Plot:	A075	Camera	brons camera	
Date:	19.4.11	Photo #	733	
Date revisit:	N/A	Camera revisit		
Initials:	bn	Photo # revisit		
Initials revisit:		Soils	clay loams	
Zone:		Soil colour:	red brown	
Datum:		Soil comments:	some gravel	
NW Easting:	743148		Some graver	
NW Northing:	7501775	Outcrop: Outcrop Type:		
SE Easting:	743199	Litter cover (%)		
		` '	Turing	1
SE Northing:	7501726	Logs	Twigs	Leaves
Topography:	flat	0===	2	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	5
Time since fire (yrs):	>5	Mid	300	15
Disturbance:	high	Lower	50	25
Condition:	poor - good	Bare ground (%):	70	
Observations		_		0/ 50
Species		Height (cm)	% AC	% DC
Acacia aneura			5	
Acacia synchronicia			5	
Acacia tetragonophylla			5	
Acacia xiphophylla			3	
Blumea tenella			0.01	
Boerhavia coccinea			0.01	
Cenchrus ciliaris			15	
Cleome viscosa			0.01	
Corchorus tridens			0.2	
Duperreya commixta			0.03	
Dysphania sp.			0.01	
Enteropogon ramosus			0.01	
Eragrostis eriopoda			1	
Eriachne benthamii Eulalia aurea			0.01 0.01	
Euphorbia ?australis			0.01	
Malvastrum americanum			1	
Portulaca oleracea			0.01	
Pritulaca oleracea Ptilotus exaltatus var. exaltatus			0.01	
Ptilotus obovatus			0.3	
Salsola australis			3	
Sclerolaena cornishiana			0.01	
Senna glutinosa subsp. chatelainiana			0.05	
Senna notabilis			0.02	
Sida fibulifera			0.01	
Solanum lasiophyllum			0.03	
Sporobolus australasicus			1	
Streptoglossa sp.			1	
Vachellia farnesiana			1	





Plot:	A076	Camera	brons camera	
Date:	19.411	Photo #	7356	736
Date revisit:	N/A	Camera revisit	7330	730
Initials:	1	Photo # revisit		
Initials revisit:	bn		-11	
		Soils	clay loams	ī
Zone:		Soil colour:	red brown	
Datum:		Soil comments:		T
NW Easting:	743825	Outcrop:		
NW Northing:	7501238	Outcrop Type:		
SE Easting:	7743875	Litter cover (%)		
SE Northing:	7501185	Logs	Twigs	Leaves
Topography:	flat	2	5	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	30
Time since fire (yrs):	>5	Mid	200	10
Disturbance:	moderate	Lower	50	10
Condition:	good	Bare ground (%):		
Observations	gees			ı
Species	1	Height (cm)	% AC	% DC
Abutilon lepidum		i i i jii jii ji ji ji ji ji ji ji ji ji	0.05	
Abutilon lepidum		50	0.01	
Acacia aneura		50	30	-
Acacia synchronicia			0.1	
Acacia tetragonophylla			0.3	
Blumea tenella			0.01	
Cenchrus ciliaris			2	
Chrysopogon fallax			5	
Cleome viscosa			0.01	
Corchorus sidoides subsp. s	sidoides		0.01	
Corchorus tridens			0.05	
Cucumis maderaspatanus			0.05	
Duperreya commixta			0.05	
Enteropogon ramosus			0.01	
Eragrostis setifolia			0.01	
Eremophila lanceolata			0.03	
Eulalia aurea			0.05	
Euphorbia ?australis			0.01	
Euphorbia alsiniflora			0.01	
Evolvulus alsinoides var. vill	•		0.01	
Gomphrena affinis subsp. pi	ilbarensis		0.01	
Goodenia nuda		35	0.01	
Hakea lorea subsp. lorea			0.05	
Ipomoea muelleri		0.5	0.03	
Maireana planifolia		65	0.03	
Malvastrum americanum			0.1	
Portulaca oleracea Pterocaulon sp.			0.01 0.01	
Ptilotus gomphrenoides			0.01	
Ptilotus obovatus			0.03	
Rostellularia adscendens var. clementii		25	0.01	
Senna notabilis			2	
Spermacoce brachystema			0.01	
Sporobolus australasicus			0.05	
Streptoglossa sp.			0.01	
Yakirra australiensis			0.01	





Plot:	A077	Camera	brons camera	a
Date:	19.4.11	Photo #	737	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Initials:	bn	Photo # revisit	lb0132	lb0133
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	742038	Outcrop:		
NW Northing:	7500105	Outcrop Type:		
SE Easting:	742089	Litter cover (%)		
SE Northing:	7500056	Logs	Twigs	Leaves
Topography:	flat	5	3	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	30
Time since fire (yrs):	>5	Mid	300	5
Disturbance:	moderate	Lower	100	10
Condition:	good	Bare ground (%):	70	
Observations				
Species		Height (cm)	% AC	% DC
Acacia aneura			20	
Acacia aneura			7	
Acacia synchronicia				
Acacia tetragonophylla			0.1	
Cenchrus ciliaris			1	
Cenchrus ciliaris			0.01	
Chrysopogon fallax			8	
Corchorus tridens	-		0.03	
Dactyloctenium radulan	S		0.01	
Enchylaena tomentosa			0.03 0.01	
Enneapogon polyphyllus Enteropogon ramosus			0.01	
Eragrostis setifolia			0.05	
Eremophila forrestii			0.03	
Eremophila lanceolata			0.1	
Hakea lorea subsp. lorea			0.1	
Perotis rara			0.2	
Psydrax latifolia			0.1	
Ptilotus obovatus			0.03	
Senna notabilis			0.03	
Sporobolus australasicu	IS		0.1	





Date 19.4.11	Plot:	A078	Camera	brons camer	а
Initials:	Date:	19.4.11	Photo #	739	
Initials revisit: SC / LB Soils Clay loams	Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Zone: 50 Soil colour: red brown	Initials:	BN / SC	Photo # revisit	lb0137	lb0138
Datum: GDA94 Soil comments: gravel and rocks present NW Easting: 740998 Outcrop: □ NW Northing: 7499934 Outcrop Type: □ SE Easting: 741048 Litter cover (%) □ SE Northing: 7499885 Logs Twigs Leaves Topography: flat 0.1 0.01 0.01 Aspect: STRATA Ht (cm) % Cover Cover Slope: Upper □ 1 Upper □ 1 0.01 Acover Soo 2 2 Cover Soo 2 Exercise in the (cm) % Acover Soo 2 Exercise in the (cm) % AC width (cm) <td< td=""><td>Initials revisit:</td><td>SC / LB</td><td>Soils</td><td>clay loams</td><td></td></td<>	Initials revisit:	SC / LB	Soils	clay loams	
NW Easting: 740998 Outcrop: NW Northing: 7499934 Outcrop Type: SE Easting: 741048 Litter cover (%) SE Northing: 7499885 Logs Twigs Leaves Topography: flat 0.1 0.01 0.01 Aspect: STRATA Ht (cm) % Cover Cover Slope: Upper Upper 1 Disturbance: 1 Disturbance: 0.0 1 Descriptions 1 Descriptions 98 Descriptions 98 Descriptions Descriptions Psecies Height (cm) % AC % DC Acacia pachyacra 0.01 0.05 Acacia pachyacra 0.05 0.05 Acacia pachyacra 0.05 0.05 Acacia pachyacra 0.05 <td>Zone:</td> <td>50</td> <td>Soil colour:</td> <td>red brown</td> <td></td>	Zone:	50	Soil colour:	red brown	
NW Northing: 7499934 Outcrop Type: SE Easting: 741048 Litter cover (%) SE Northing: 7499885 Logs Twigs Leaves Topography: flat 0.1 0.01 Aspect: STRATA Ht (cm) % Cover Slope: Upper Upper Image: Mid 250 1 Disturbance: moderate Lower 50 2 Condition: very good Bare ground (%): 98 Observations Bare ground (%): 98 Observations Peccess Height (cm) % AC % DC Acacia pachyacra 0.01 % AC % DC Acacia pruinocarpa 0.05 Acacia pruinocarpa 0.05 Acacia synchronicia 0.7 Boerhavia coccinea 0.07 Boerhavia coccinea 0.07 Boerhavia coccinea 0.05 Acacia synchronicia 0.05 Acacia	Datum:	GDA94	Soil comments:	gravel and ro	ocks present
SE Easting: 741048 Litter cover (%) SE Northing: 7499885 Logs Twigs Leaves Topography: flat 0.1 0.01 0.01 Aspect: STRATA Ht (cm) % Cover Slope: Upper Time since fire (yrs): >5 Mid 250 1 Disturbance: moderate Lower 50 2 Condition: very good Bare ground (%): 98 Observations Bare ground (%): 98 Observations Height (cm) % AC % DC Acacia pachyacra 0.1 Acacia pachyacra 0.05 Acacia pruinocarpa 0.05 Acacia pruinocarpa 0.07 Do Acacia pruinocarpa 0.07 Boerhavia coccinea 0.7 Boerhavia coccinea 0.07 Do Do Cenchrus ciliaris 1 Cleome viscosa 0.05 Do <	NW Easting:	740998	Outcrop:		
SE Northing: 7499885 Logs Twigs Leaves Topography: flat 0.1 0.01 0.01 Aspect: STRATA Ht (cm) % Cover Slope: Upper Time since fire (yrs): >5 Mid 250 1 Disturbance: moderate Lower 50 2 Condition: very good Bare ground (%): 98 0 Observations ** Property good ** Property good <td< td=""><td>NW Northing:</td><td>7499934</td><td>Outcrop Type:</td><td></td><td></td></td<>	NW Northing:	7499934	Outcrop Type:		
Topography: flat	SE Easting:	741048	Litter cover (%)		
Topography: flat	SE Northing:	7499885	Logs	Twigs	Leaves
Upper Uppe	Topography:	flat	, in the second	_	0.01
Upper Disturbance So	Aspect:		STRATA	Ht (cm)	% Cover
Disturbance: moderate Lower 50 2 Condition: very good Bare ground (%): 98 Observations **Property of the pick o	Slope:		Upper	,	
Condition: very good Bare ground (%): 98 Observations	Time since fire (yrs):	>5	Mid	250	1
Observations Species Height (cm) % AC % DC Acacia pachyacra 0.1 Acacia pruinocarpa 0.05 Acacia synchronicia 0.7 Boerhavia coccinea 0.03 Cenchrus ciliaris 1 Cleome viscosa 0.05 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Euphorbia ?australis 0.01 0.01 Gomphrena affinis subsp. pilbarensis 0.01 0.01 Heliotropium inexplicitum 0.01 0.01 Portulaca oleracea 0.01 0.01 Ptilotus obovatus 0.01 0.05 Sclerolaena cornishiana 0.01 0.05 Sclerolaena cornishiana 0.03 0.03 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.01 0.01 Tribulus macrocarpus 0.01	Disturbance:	moderate	Lower	50	2
Species Height (cm) % AC % DC Acacia pachyacra 0.1 0.05 Acacia pruinocarpa 0.05 0.07 Acacia synchronicia 0.7 0.03 Boerhavia coccinea 0.03 0.03 Cenchrus ciliaris 1 0.05 Dysphania sp. 0.01 0.01 Eriachne pulchella subsp. pulchella 0.01 0.01 Euphorbia ?australis 0.01 0.01 Gomphrena affinis subsp. pilbarensis 0.01 0.01 Heliotropium inexplicitum 0.01 0.01 Portulaca oleracea 0.01 0.01 Ptilotus obovatus 0.01 0.05 Salsola australis 0.05 0.05 Sclerolaena cornishiana 0.01 0.03 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.01 Tribulus macrocarpus 0.01	Condition:	very good	Bare ground (%):	98	
Acacia pachyacra 0.1 Acacia pruinocarpa 0.05 Acacia synchronicia 0.7 Boerhavia coccinea 0.03 Cenchrus ciliaris 1 Cleome viscosa 0.05 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Euphorbia ?australis 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 0.01 Ptilotus obovatus 0.01 Salsola australis 0.05 Sclerolaena cornishiana 0.01 Senna notabilis 0.03 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.01 Tribulus macrocarpus 0.01	Observations				
Acacia pruinocarpa 0.05 Acacia synchronicia 0.7 Boerhavia coccinea 0.03 Cenchrus ciliaris 1 Cleome viscosa 0.05 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Euphorbia ?australis 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 0.01 Ptilotus obovatus 0.01 Salsola australis 0.05 Sclerolaena cornishiana 0.01 Senna notabilis 0.03 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.01 Tribulus macrocarpus 0.01	Species		Height (cm)	% AC	% DC
Acacia synchronicia 0.7 Boerhavia coccinea 0.03 Cenchrus ciliaris 1 Cleome viscosa 0.05 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Euphorbia ?australis 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 0.01 Ptilotus obovatus 0.01 Salsola australis 0.05 Sclerolaena cornishiana 0.01 Senna notabilis 0.03 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.01 Tribulus macrocarpus 0.01	Acacia pachyacra			0.1	
Boerhavia coccinea 0.03 Cenchrus ciliaris 1 Cleome viscosa 0.05 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Euphorbia ?australis 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 0.01 Ptilotus obovatus 0.01 Salsola australis 0.05 Sclerolaena cornishiana 0.01 Senna notabilis 0.03 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.01 Tribulus macrocarpus 0.01	Acacia pruinocarpa			0.05	
Cenchrus ciliaris 1 Cleome viscosa 0.05 Dysphania sp. 0.01 Eriachne pulchella subsp. pulchella 0.01 Euphorbia ?australis 0.01 Gomphrena affinis subsp. pilbarensis 0.01 Heliotropium inexplicitum 0.01 Portulaca oleracea 0.01 Ptilotus obovatus 0.01 Salsola australis 0.05 Sclerolaena cornishiana 0.01 Senna notabilis 0.03 Solanum lasiophyllum 0.03 Sporobolus australasicus 0.01 Tribulus macrocarpus 0.01				0.7	
Cleome viscosa0.05Dysphania sp.0.01Eriachne pulchella subsp. pulchella0.01Euphorbia ?australis0.01Gomphrena affinis subsp. pilbarensis0.01Heliotropium inexplicitum0.01Portulaca oleracea0.01Ptilotus obovatus0.01Salsola australis0.05Sclerolaena cornishiana0.01Senna notabilis0.03Solanum lasiophyllum0.03Sporobolus australasicus0.01Tribulus macrocarpus0.01					
Dysphania sp.0.01Eriachne pulchella subsp. pulchella0.01Euphorbia ?australis0.01Gomphrena affinis subsp. pilbarensis0.01Heliotropium inexplicitum0.01Portulaca oleracea0.01Ptilotus obovatus0.01Salsola australis0.05Sclerolaena cornishiana0.01Senna notabilis0.03Solanum lasiophyllum0.03Sporobolus australasicus0.01Tribulus macrocarpus0.01					
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Solanum lasiophyllum 0.03 Sporobolus australasicus 0.01 Tribulus macrocarpus 0.01					
Sporobolus australasicus0.01Tribulus macrocarpus0.01					
Tribulus macrocarpus 0.01					
·	-				
				0.02	





Plot:	A079	Camera	brons camera	a
Date:	20.4.11	Photo #	741	742
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Initials:	bn	Photo # revisit	lb0161	lb0162
Initials revisit:	SC / LB	Soils	clay loams	•
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	738755	Outcrop:		
NW Northing:	7497085	Outcrop Type:		
SE Easting:	738808	Litter cover (%)		
SE Northing:	7497035	Logs	Twigs	Leaves
Topography:	flat	2	2	5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	10
Time since fire (yrs):	>5	Mid	300	4
Disturbance:	high	Lower	50	20
Condition:	poor	Bare ground (%):	70	
Observations				
Species		Height (cm)	% AC	% DC
Acacia aneura			7	
Acacia citrinoviridis			1	
Acacia inaequilatera			1	
Acacia pruinocarpa			3	
Acacia synchronicia			1	
Cenchrus ciliaris			20	
Cleome viscosa			0.01	
Hakea lorea subsp. lorea			0.1	
Portulaca oleracea			0.01	
Salsola australis			0.03	
Senna artemisioides subsp. oligophylla			0.03	
Senna notabilis			0.01	
Solanum lasiophyllum Sporobolus australasicus			0.01	
Triodia epactia			0.03	
тпоша ераспа		ĺ	10.00	I





Plot:	A080		brons came	ra
Date:	20.4.11	Photo #	745	746
Date revisit:	1/07/2011	Camera revisit	Lisa Bannist	ter
Initials:	bn	Photo # revisit	b0159/	b01590
Initials revisit:	SC / LB	Soils	clay loamS	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	739500	Outcrop:		
NW Northing:	7496999	Outcrop Type:		
SE Easting:	739550	Litter cover (%)		
SE Northing:	7496950	Logs	Twigs	Leaves
Topography:	flat	1	2	4
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	>5	Mid	400	10
Disturbance:	high	Lower	60	35
Condition:	poor	Bare ground (%):	55	
Observations	many standing	g		
Species		Height (cm)	% AC	% DC
Abutilon lepidum			0.01	
Acacia aneura			5	
Acacia synchronicia			7	
Cenchrus ciliaris			25	
Chrysopogon fallax			1	
Dysphania rhadinostachya			0.03	
Euphorbia sp.			0.01	
Hakea lorea subsp. lorea			0.3	
Senna notabilis			0.01	
Triodia epactia			10	





Plot:	A081	Camera	brons camera	a
Date:	20.4.11	Photo #	747	
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	er
Initials:	bn	Photo # revisit	lb0157	lb0158
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	740072	Outcrop:		
NW Northing:	7496303	Outcrop Type:		
SE Easting:	740121	Litter cover (%)		
SE Northing:	7496255	Logs	Twigs	Leaves
Topography:	flat	4	1	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	1
Time since fire (yrs):	>5	Mid	500	10
Disturbance:	high	Lower	50	25
Condition:	poor	Bare ground (%):	60	
Observations	head of small drainage line			
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis			7	
Acacia dictyophleba			0.1	
Acacia inaequilatera			0.03	
Acacia pruinocarpa			4	
Acacia synchronicia			0.3	
Acacia tetragonophylla			0.1	
Aerva javanica			0.01	
Atalaya hemiglauca			0.5	
Cenchrus ciliaris			20	
Corymbia hamersleyana			0.5	
Hakea lorea subsp. lorea			0.02	
Salsola australis			0.01	ļ
Senna artemisioides subsp. oligophylla ? x helmsii			0.01	
Senna notabilis			0.01	
Tribulus astrocarpus			0.01	
Triodia epactia			3	1





Plot:	A082	Camera	brons camera	3
Date:	20.4.11	Photo #	750	749
Date revisit:	1/07/2011	Camera revisit	Lisa Banniste	
Initials:	bn	Photo # revisit	lb0155	lb0156
Initials revisit:	SC / LB	Soils	clay loams	
Zone:	50	Soil colour:	red brown	1
Datum:	GDA94	Soil comments:		1
NW Easting:	741192	Outcrop:		
NW Northing:	7495783	Outcrop Type:	1	1
SE Easting:	741242	Litter cover (%)		
SE Northing:	7495733	Logs	Twigs	Leaves
Topography:	slight depression	1	5 Twigs	5
Aspect:	Slight depression	STRATA		_
Slope:			Ht (cm) 800	% Cover 8
Time since fire (yrs):	. F	Upper Mid		_
	>5		400	10
Disturbance:	high	Lower	50	10
Condition:	poor	Bare ground (%):	75	
Observations		lii i i i i i	1 0/ 10	0/ DO
Species		Height (cm)	% AC	% DC
Acacia aneura			2	
Acacia citrinoviridis			8	
Acacia synchronicia			3	
Acacia tetragonophylla			0.05	
Aerva javanica			0.03	
Aristida contorta			0.03	
Boerhavia coccinea			0.03	
Cenchrus ciliaris			8	
Cenchrus ciliaris			0.01 0.05	
Cleome viscosa Corchorus sidoides subsp. sido	nidas			
-	nues		0.01 5	
Corymbia hamersleyana Cucumis maderaspatanus			0.01	
· · · · · · · · · · · · · · · · · · ·		25	0.01	
Enneapogon robustissimus		25	0.01	
Eulalia aurea Euphorbia ?australis			0.01	
Gomphrena cunninghamii			0.01	
Hakea lorea subsp. lorea			0.03	
Polycarpaea corymbosa			0.01	
Portulaca oleracea			0.01	
Ptilotus exaltatus var. exaltatus			0.03	
Ptilotus helipteroides			0.01	
Ptilotus obovatus			0.03	
Salsola australis			0.05	
Sclerolaena cornishiana			2	
Senna artemisioides subsp. oligophylla ? x helmsii			0.01	
Sida cardiophylla		0.01		
Solanum lasiophyllum		0.01		
Sporobolus australasicus			0.01	
Triodia epactia			2	<u> </u>





Plot:	B001	Camera	bronwyns cam	
Date:	40631	Photo #	1046	1047
Date Revisit:	7/07/2011	Camera Revisit	Floora's camera	
Initials:	jl fw	Photo # Revisit	3071	3072
Initial Revisit:	FW / PM	Soils	rocky	
Zone:	50	Soil colour:	red	
Datum:	GDA94	Soil comments:	rocky outcrop, sk	eletal soils
NW Easting:	744145	Outcrop:	ironstone	
NW Northing:	7484483	Outcrop Type:		
SE Easting:	744197	Litter cover (%)		
SE Northing:	7484433	Logs	Twigs	Leaves
Topography:	lower slope	0	0	1
Aspect: western		STRATA	Ht (cm)	% Cover
Slope:	5-15 degrees	Upper		
Time since fire (yrs):	plus 5	Mid	200	1
Disturbance:	low	Lower	50	40
Condition:	excellent	Bare ground (%):	60	
Observations				
Species		Height (cm)	% AC	% DC
Acacia pachyacra		200	0.1	
Fimbristylis simulans		10	2	
Grevillea wickhamii subsp	Grevillea wickhamii subsp. hispidula		0.2	
Senna artemisioides subsp. oligophylla		100	0.05	
Senna glutinosa subsp. glutinosa		110	0.05	
Trianthema glossostigma				
Tribulus suberosus		150	0.1	
Triodia sp. Shovelanna Hi	ll (S. van Leeuwen	40	35	



Plot:	B002	Camera	bronwyns car	n
Date:	29-Mar	Photo #	1048	1049
Date Revisit:	7/07/2011	Camerea Revisit:	Floora's came	
Initials:	il fw	Photo # Revisit:	3070	
Initials Revisit:	FW / PM	Soils	red brown loa	ms
Zone:	50	Soil colour:	red brown	
Datum:	GDA94	Soil comments:		
NW Easting:	744082	Outcrop:	na	
NW Northing:	7484437	Outcrop Type:	110	
SE Easting:	744130	Litter cover (%)		
SE Northing:	7484410	Logs	Twigs	Leaves
Topography:	minor channel	Logo	3	7
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	6	2
Time since fire (yrs):	plus 5	Mid	4	8
Disturbance:	low	Lower	1	40
Diotal Barros.	1011	201101	'	10
Condition:	excellent	Bare ground (%):	40	
	OXOGIIOTIC			
Observations		creekline is roughly 20	Om wide	
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adox	ка	20	0.03	
Acacia bivenosa		250	1	
Acacia pachyacra		80	0.04	
Acacia tumida var. pilk	parensis	400	10	
Aristida holathera var. I	holathera	50	0.2	
Bonamia rosea		25	0.03	
Cleome viscosa		40	0.3	
Corchorus lasiocarpus	subsp ? lasiocarpu	IS	0.02	
Corymbia hamersleyan	а	800	4	
Cucumis maderaspatar				
Dampiera candicans			0.2	
Eremophila longifolia		200	6	
Eriachne mucronata		100	1	
Euphorbia ?australis		10	0.03	
Gossypium australe			0.3	
Grevillea wickhamii sub	sp. <i>hispidula</i>		2	
Hybanthus aurantiacus		50	0.2	
Jasminum didymum su	bsp. <i>lineare</i>	50	0.02	
Paraneurachne mueller		120	0.1	
Paspalidium rarum		30	0.1	
Petalostylis cassioides			0.5	
Polycarpaea longiflora	Polycarpaea longiflora			
Pterocaulon sphaeranth	noides		0.01	
Senna artemisioides su	ıbsp. <i>oligophylla</i>	120	0.3	
Senna notabilis			0.1	
Sida sp. Pilbara (A.A. N	Mitchell PRP 1543)	70	0.2	
Sida sp. spiciform panio	cles (E. Leyland s.i	30	0.02	
Tephrosia densa			0.03	
Trachymene oleracea s	subsp. <i>oleracea</i>		0.05	
Trichodesma zeylanicu	m	25	0.1	
Triodia epactia		100	30	
Wahlenbergia tumidifru	cta		0.02	
·				





Plot:	B003	Corner	nw	se
Date:	29-Mar	Camera	jess' cam	
Date Revisit:	7/07/2011	Photo #	1542	1543
Initials:	jl fw	Camera Revisit	Floora's came	era
Initials Revisit:	FW / PM	Photo # Revisit:	3069	
Zone:	50	Soils	red browny lo	am
Datum:	GDA94	Soil colour:	reddy brown	
NW Easting:	744543	Soil comments:	rocky	
NW Northing:	7484487	Outcrop:	ironstone	•
SE Easting:	744597	Litter cover (%)		
SE Northing:	7484432	Logs	Twigs	Leaves
Topography:	upperslope	_		1
Aspect:	east	STRATA	Ht (cm)	% Cover
Slope:	gentle slope with gully	Upper	•	
Time since fire (yrs):	plus 5	Mid	2	6
Disturbance:	low	Lower	0.3	30
Condition: Observations	excellent creekline running	Bare ground (%):	60	
	through the centre	Illaimht (am)	0/ 40	% DC
Species		Height (cm)	% AC	/ ₀ DC
Acacia bivenosa Calytrix carinata		200	7 0.05	
Eriachne mucronata		30	5	
Eriachne pulchella subs	p. dominii	10	0.01	
Eucalyptus leucophloia		700	3	
Euphorbia ?australis		1	0.02	
Fimbristylis simulans		8	1	
Grevillea wickhamii sub	sp. <i>hispidula</i>	170	0.01	
Ptilotus calostachyus	Ptilotus calostachyus		0.01	
		160	0.05	
		100	0.15	
		70	0.01	
· · · · · · · · · · · · · · · · · · ·		60	0.02	
Tribulus suberosus		100	0.02	
Triodia epactia	Hill /C. year Leasurer C	80	10	
Triodia sp. Shovelanna	30	25		





Plot:	B004	Corner	nw	se
Date:	29-Mar	Camera	jess' camera	
Date Revisit:	7/07/2011	Photo #	1544	1545
Initials:	jl fw	Camera Revisit	Floora's came	era
Initials Revisit:	FW / PM	Photo # Revisit	3068	
Zone:	50	Soils	red brown loa	m and sands
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	744675	Soil comments:	intermittent lo	am with
NW Northing:	7484565	Outcrop:	ironstone	
SE Easting:	744724	Litter cover (%)		
SE Northing:	7484512	Logs	Twigs	Leaves
Topography:	lower slope	_		
Aspect:	north	STRATA	Ht (cm)	% Cover
Slope:	gentle	Upper		
Time since fire (yrs):	pluss 5	Mid	200	5
Disturbance:	low	Lower	30	30
Condition:		Bare ground (%):		
Observations	lots of grevilla w	ick seedlings		
Species	-	Height (cm)	% AC	% DC
Acacia adoxa var. adoxa		60	2	
Acacia sericophylla		170	0.2	
Calytrix carinata		60	1.4	
Corchorus lasiocarpus ?subs	sp. <i>parvu</i> s	70	0.5	
Dampiera candicans		40	5	
Dicrastylis cordifolia		50	1	
Eragrostis eriopoda		40	0.02	
Eucalyptus leucophloia Grevillea wickhamii subsp. h	isnidula	40 180	10	
Heliotropium tenuifolium	ispidula	20	0.2	
Heliotropium tenuifolium		20	0.1	
Hybanthus aurantiacus		30	0.1	
Keraudrenia nephrosperma		50	0.02	
Paraneurachne muelleri		50	0.3	
Petalostylis cassioides		80	0.4	
* Portulaca oleracea			0.01	
		20	0.05	
,		40	0.01	
		20	0.15	
Solanum lasiophyllum		-	0.01	
Trianthema pilosa		5	0.01	
Triodia epactia Triodia sp. Shovelanna Hill (S van Leeuwen 29	100	5 15	
Tribula Sp. Shovelanila filli (o. van Leeuwen 30	J430	lia	





Plot:	B005	Corner	nw	se
Date:	30-Mar	Camera	jess' camera	
Date Revisit:	7/07/2011	Photo #	1551	1552
Initials:	il fw	Camera Revisit:	Floora's came	
Initials Revisit:	FW / PM	Photo # Revisit:	3076	l
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	744188	Soil colour.	red brown	
NW Northing:	7485269		20	
		Outcrop:	na	
SE Easting:	744238	Litter cover (%)		Ι -
SE Northing:	7485219	Logs	Twigs	Leaves
Topography:	flats	0	1	4
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	600	4
Time since fire (yrs):	plus 5	Mid	250	15
Disturbance:	medium	Lower	50	
Condition:	very good - excellent	Bare ground (%):	18	
Observations	cattle,flowline			
Species		Height (cm)	% AC	% DC
Acacia dictyophleba		240	5	
Acacia inaequilatera			0.5	
Acacia pachyacra		240	0.5	
Acacia pruinocarpa		240	0.2	
Acacia pyrifolia var. pyrifolia	a	400	1	
Acacia sclerosperma subsp	o. sclerosperma	220	6	
Acacia sclerosperma subsp	o. sclerosperma	300	1	
Aristida hygrometrica			0.05	
Boerhavia coccinea			0.04	
Bulbostylis barbata		3	0.01	
Cenchrus ciliaris		50	3	
* Cenchrus setiger		80	0.05	
* Corymbia hamersleyana		600	5	
Eragrostis eriopoda		00	1	
Eriachne aristidea		20	0.01	
Eriachne mucronata Euphorbia ?australis		40 10	0.02	
Gossypium australe		50	0.02	
Gossypium australe Gossypium robinsonii		200	0.5	
Paraneurachne muelleri		70	0.3	
Petalostylis cassioides		220	0.1	
Polymeria ambigua		220	0.7	
Salsola australis			0.01	
Senna artemisioides subsp	. helmsii		0.01	
Senna artemisioides subsp			0.04	
Senna glutinosa subsp. pru	* ' '	40	0.4	
Senna notabilis		25	0.2	
Solanum lasiophyllum		40	0.1	
Themeda triandra		120	0.02	
Trianthema pilosa		5	0.02	
Tribulus suberosus		20	0.1	
Triodia epactia		60	10	





Date 30-Mar Camera jess' camera Date Revisit: 770772011 Photo # 1555 1566 Initials: ji fw Camera Revisit: 70072011 Photo # Revisit: 3077 3077 Zone: 50 Soils sandy loam 3077<	Р	lot:	B006	Corner	nw	se
Date Revisit:						
Initials:	D	ate Revisit:			,	1556
Initials Revisit:	Ir	nitials:	il fw		Floora's came	era
Zone:	_		•			
Datum: GDA94 Soil colour: red brown NW Easting: 744455 Soil comments:	_					
NW Easting: 744455 Soll comments: NW Northing: 7486008 Outcrop: na SE Easting: 744507 Litter cover (%) Itter cover (%) SE Rorthing: 7485958 Logs Twigs Leaves Topography: flat 1 1 2 Aspect: na STRATA Ht (cm) % Cover Slope: 0 Upper 600 1 Time since fire (yrs): 5 plus Mid 200 5 Disturbance: medium Lower 50 30 Condition: very good - excellent Bare ground (%): 75 Observations some old burnt logs present, cattle, creekline, same as b5 — Leadia collection: same as b5 — Pesces Height (cm) % AC % DC Acacia sclade 3 full principal 200 0.15 — Acacia pruincarpa 30 0.02 — — — — Molanter Molanter — Molanter </th <th>!</th> <th></th> <th></th> <th></th> <th></th> <th></th>	!					
New Northing: 7486008					rea brown	
SE Easting: 744507 Litter cover (%) SE Northing: 7485958 Logs Twigs Leaves Topography: flat 1 1 2 Aspect: na STRATA Ht (cm) % Cover Slope: 0 Upper 600 1 Time since fire (yrs): 5 plus Mid 200 5 Disturbance: medium Lower 50 30 Condition: very good - excellent Bare ground (%): 75 Observations some old burnt logs present, cattle. creekline, same as b5 Feeling Maccia cattle. creekline, same as b5 Region Height (cm) % AC % DC Acacia futudgeniana 100 0.1 4 4 6 Acacia futudgeniana 100 0.1 4 6 6 6 6 C 6 C MC MC <th< th=""><th>_</th><th></th><th></th><th></th><th>na</th><th></th></th<>	_				na	
SE Northing: 7485958 Logs Twigs Leaves	_				IIa	
Topography:	_			` ,	Turing	
Aspect: na STRATA		_		_	_	
Slope: 0 Upper 600 1					•	
Time since fire (yrs): 5 plus Mid 200 5 Disturbance: medium Lower 50 30 Condition: very good - excellent Bare ground (%): 75 Observations some old burnt logs present, cattle, creekline, same as b5 Species Height (cm) % AC % DC Acacia Trudgeniana 100 0.1 Acacia price (%): DC Meight (cm) % AC M DC Acacia dictyophleba 200 0.15 Acacia price (%): Acacia price (%): AC M DC Acacia pruinocarpa 30 0.02 Acacia prifolia var. pyrifolia 240 3 Acacia celescepserma subsp. sclerosperma 180 2.5 Acacia turnida var. pilbarensis 80 0.5 Aracia turnida var. pilbarensis 80 0.5 Aratida holathera var. holathera 60 0.02 Aratida holathera var. holathera 60 0.02 Aratida holathera var. holathera 160 0.2 0.02 Acacia turnida var. pilbarensis 80 0.5 Aratida holathera var. holathera 160 0.02 <						_
Disturbance: medium Lower 50 30 Condition: very good - excellent Bare ground (%): 75 Observations some old burnt logs present, cattle. creekline, same as b5 Species Height (cm) % AC % DC Acacia 2rtrudgeniana 100 0.1 0.15 Acacia dictyophleba 200 0.15 0.5 Acacia pruinocarpa 30 0.02 0.5 Acacia pruinocarpa 30 0.02 0.02 Acacia pruinocarpa 30 0.02 0.02 Acacia sclerosperma subsp. sclerosperma 180 2.5 0.02 Acacia tumida var. pyrifolia 240 3 0.02 Acacia tumida var. pilbarensis 80 0.5 0.5 Aristida holathera var. holathera 60 0.02 0.02 Aristida hygrometrica 160 0.2 0.02 Bulbostylis barbata 3 0.01 1 Cenchrus ciliaris 40 1 1 * Cenchrus ciliaris		-				
Condition: very good - excellent Bare ground (%): 75 Observations some old burnt logs present, cattle, creekline, same as b5 Species Height (cm) % AC % DC Acacia ?trudgeniana 100 0.1 Acacia ?trudgeniana 200 0.15 Acacia purioncarpa 30 0.02 Acacia purinocarpa 30 0.02 Acacia pyrifolia var, pyrifolia 240 3 Acacia pyrifolia var, pyrifolia 240 3 Acacia tetragonophylla 50 0.04 Acacia tetragonophylla 50 0.04 Acacia tumida var, pilbarensis 80 0.5 Aristida holathera var. holathera 60 0.02 Aristida hygrometrica 160 0.2 Boerhavia coccinea 20 0.02 Boerhavia coccinea 20 0.02 Bulbostylis barbata 3 0.01 * Cenchrus setiger 80 0.01 * Cenchrus setiger 80 0.01 * Corroborus sidoides subsp	-		•	-		
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Species	С	ondition:	very good - excellent	Bare ground (%):	75	
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Acacia pachyacra		Acacia ?trudgeniana		100	0.1	
Acacia pruinocarpa 30 0.02 Acacia pyrifolia var. pyrifolia 240 3 Acacia sclerosperma subsp. sclerosperma 180 2.5 Acacia tetragonophylla 50 0.04 Acacia tumida var. pilbarensis 80 0.5 Aristida holathera var. holathera 60 0.02 Aristida hygrometrica 0.1 0.1 Atalaya hemiglauca 160 0.2 Boerhavia coccinea 20 0.02 Bulbostylis barbata 3 0.01 Cenchrus ciliaris 40 1 * Cenchrus setiger 80 0.01 * Corchorus sidoides subsp. sidoides 80 0.2 Corymbia hamersleyana 700 2 Crotalaria medicaginea var. neglecta 30 0.01 Eragrostis eriopoda 3 3 Eriachne mucronata 40 3 Gomphrena affinis subsp. pilbarensis 0.01 Gossypium robinsonii 220 0.1 Paraneurachne muelleri 50 0.02		,			0.15	
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Trianthema pilosa 4 0.05 Tribulus suberosus 20 0.1	-			100		
Tribulus suberosus 20 0.1	-					
, ,, , , , , , , , , , , , , , , ,		Triodia epactia		49	15	





Р	lot:	B007	Corner	nw	se
D	ate:	30-Mar	Camera	jess' camera	
D	ate Revisit:	7/07/2011	Photo #	1557	1558
In	itials:	il fw	Soils	sandy loam	
In	itials Revisit:	FW / PM	Camera Revisit:	Floora's came	era
	one:	50	Photo # Revisit:	3078	
-	atum:	GDA94	Soil colour:	red brown	
_	W Easting:	744755	Soil comments:	some creek ro	ocks present
_	W Northing:	7486482	Outcrop:	na	Joke procent
_	E Easting:	744798	Litter cover (%)	i i a	
_	E Northing:	7486430	` '	Turino	Lagyes
	opography:	flat	Logs	Twigs 1	Leaves 1
-	<u> </u>			•	
	spect:	na	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	700	6
_	ime since fire (yrs):	plus 5	Mid	180	3
	isturbance:	medium	Lower	80	25
-	ondition:	very good - excellent	Bare ground (%):	75	
0	bservations	cattle			0/ 00
	Species		Height (cm)	% AC	% DC
	Acacia ancistrocarpa		120	0.4	
	Acacia dictyophleba			0.04	
	Acacia pruinocarpa		100	0.1	
	Acacia pyrifolia var. pyrifolia		80	3	
	Acacia tumida var. pilbarensis			0.02	
	Aristida holathera var. holather	a	50	0.1	
	Boerhavia coccinea			0.1	
_	Bulbostylis barbata		3	0.01	
_	Cenchrus ciliaris		40	0.4	
_	Cenchrus setiger		60	0.02	
Ĺ	Chrysopogon fallax	• •	140	0.1	
-	Corchorus sidoides subsp. sido	oides	30	0.1	
-	Corymbia hamersleyana		700	5 0.03	
-	Enneapogon polyphyllus Eragrostis eriopoda		30	4	
-	Eragrostis eriopoda		40	0.5	
-	Eriachne aristidea		15	0.05	
-	Eriachne mucronata		40	4	
\vdash	Euphorbia ?australis		10	0.03	
H	Gossypium australe		40	0.03	
\vdash	Indigofera monophylla		30	0.4	
H	Paraneurachne muelleri		60	0.02	
<u> </u>	Paraneurachne muelleri		30	0.01	
H	Perotis rara		10	0.01	
T	Portulaca oleracea		3	0.01	
*	Ptilotus astrolasius			0.02	
	Santalum ?lanceolatum			0.02	
	Senna artemisioides subsp. he	elmsii	70	0.06	
L	Senna notabilis		30	0.02	
<u> </u>	Solanum lasiophyllum		30	0.01	
L	Tephrosia rosea var. glabrior		60	0.05	
L	Themeda triandra		100	0.02	
H	Trianthema pilosa		5 100	0.04 25	
\vdash	Triodia epactia Triodia epactia		130	1	
ᆫ	тпочіа ерасца		130	1	





Р	lot:	B008	Corner	nw	se
D	ate:	30-Mar	Camera	jess' camera	
D	ate Revisit:	8/07/2011	Photo #	1559	1560
In	itials:	jl fw	Camera Revisit	Floora's came	era
In	itials Revisit:	FW / PM	Photo # Revisit:	3106	
Z	one:	50	Soils	loam	
D	atum:	GDA94	Soil colour:	red brown	
Ν	W Easting:	742102	Soil comments:		
N	W Northing:	7487964	Outcrop:	na	
S	E Easting:	742152	Litter cover (%)		
S	E Northing:	7487914	Logs	Twigs	Leaves
T	opography:	flat			
Α	spect:	na	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	300	1
Ti	ime since fire (yrs):	plus 5	Mid	200	3
D	isturbance:	low	Lower	80	30
С	ondition:	excellent	Bare ground (%):	70	
	bservations	acacia 4 flowers seen			
Ľ		outside plot			0/ 50
*	Species		Height (cm)	% AC	% DC
	Acacia citrinoviridis			0.5	
	Acacia inaequilatera		300	1.5	
	Acacia pachyacra		300	0.5	
	Acacia pruinocarpa	an adaraanarma	150	0.6	
	Acacia sclerosperma sub	osp. scierosperma	300	1	
	Atalaya hemiglauca		110	0.1	
*	Boerhavia coccinea Cenchrus ciliaris		50	0.4	
_	Corchorus sidoides subs	n sidnides	15	0.01	
	Eragrostis eriopoda	p. didoided	40	1	
	Hakea lorea subsp. lorea	<u> </u>	220	0.08	
	Paraneurachne muelleri	•		0.04	
*	Portulaca oleracea		3	0.01	
	Pterocaulon sphaerantho	pides		0.01	
	Ptilotus astrolasius			0.03	
	Ptilotus exaltatus var. exaltatus		40	0.1	
	Ptilotus obovatus		40	0.06	
	Salsola australis			0.03	
	Senna artemisioides subsp. helmsii		50	0.03	
	Senna artemisioides subsp. oligophylla		60	0.2	
	Solanum lasiophyllum		30	0.01	
	Tribulus suberosus		5	0.2	
	Triodia epactia		100	15	
	Triodia epactia		110	2	





Plot:	B009	Corner	nw	se	
Date:			jess' camera		
Date Revisit:	6/07/2011	Photo #	1561 1562		
Initials:	tials: jl fw Camera Revisit:		Floora's camera		
Initials Revisit:	FW/PM	Photo # Revisit:	3066		
Zone:	50	Soils	sandy loam		
Datum:	GDA94	Soil colour:	red brown		
NW Easting:	742053	Soil comments:	some creekline rocks present		
NW Northing:	7488313	Outcrop:	na		
SE Easting: 742103		Litter cover (%)			
SE Northing:	7488263	Logs	Twigs	Leaves	
Topography:	minor creek	0	3	5	
Aspect:	na	STRATA	Ht (cm)	% Cover	
Slope:	0	Upper	800	8	
Time since fire (yrs):	pkus 5	Mid	150	1	
Disturbance:	low	Lower	50	25	
Condition:	excellent	Bare ground (%):	75		
Observations	mulga country				
Species		Height (cm)	% AC	% DC	
Acacia citrinoviridis		500	10		
Acacia pruinocarpa		400	4		
Acacia pyrifolia var. pyrifolia			0.5		
Atalaya hemiglauca		200	0.2		
Atalaya hemiglauca			0.02		
Boerhavia coccinea		0	0.1		
Boerhavia sp. * Cenchrus ciliaris		6 60	0.01 18		
Cleome viscosa		00	0.01		
Corchorus sidoides subsp. s	sidoides	40	0.03		
Cucumis maderaspatanus		1	0.02		
Duperreya commixta			0.03		
Gomphrena affinis subsp. pi	lbarensis	35	0.01		
Polycarpaea longiflora			0.01		
* Portulaca oleracea		3	0.1		
Psydrax latifolia		20	0.01		
Ptilotus exaltatus var. exaltatus		30	0.02		
Ptilotus obovatus		30	0.05		
Santalum sp.		240	0.2		
Senna artemisioides subsp. helmsii		60	0.04		
Senna glutinosa subsp. glutinosa		100	0.1		
Triodia epactia		90	4		



Р	lot:	B010	Corner	nw	se
D	ate:	30-Mar	Camera	jess' camera	
D	ate Revisit:	6/07/2011	Photo #	1563	1564
Ir	itials:	jl fw	Camera Revisit:	Floora's camera	
Ir	itials Revisit:	FW / PM	Photo # Revisit:	3065	
Z	one:	50	Soils	sandy loam	
D	atum:	GDA94	Soil colour:	red brown	
N	W Easting:	742434	Soil comments:	some creekline r	ocks present
N	W Northing:	7488877	Outcrop:	na	
S	E Easting:	742484	Litter cover (%)		
S	E Northing:	7488827	Logs	Twigs Leaves	
Т	opography:	flat creekline		1	5
Α	spect:	na	STRATA	Ht (cm)	% Cover
S	lope:	0	Upper	900	6
Т	ime since fire (yrs):	plus 5	Mid	200	2
D	isturbance:	low but some sign	Lower	40	25
С	ondition:	excellent	Bare ground (%):	70	
0	bservations	cattle, similar to be	9. many juvenile ac	acia trees	
	Species		Height (cm)	% AC	% DC
	Acacia ?citrinoviridis		900	10	
	Acacia pruinocarpa			2.5	
	Atalaya hemiglauca			0.1	
	Boerhavia coccinea			0.15	
*	Cenchrus ciliaris		60	15	
*	Cenchrus ciliaris		80	0.2	
*	Cenchrus setiger		60	3	
	Cleome viscosa		10	0.01	
	Corchorus sidoides subsp. s.	idoides	50	0.02	
	Duperreya commixta			0.05	
	Enchylaena tomentosa		60	0.03	
	Gossypium australe		25	0.01	
*	Portulaca oleracea		3	0.06	
L	Psydrax latifolia	· · · ·	230	0.1	
L	Ptilotus exaltatus var. exaltatus		40	0.02	
H	Ptilotus obovatus		40	0.02	
\vdash	Rhagodia eremaea Senna artemisioides subsp. i	holmoji	70 110	0.04 0.02	
\vdash	Sporobolus australasicus	110111011	110	0.02	
	Triodia epactia		80	5	
	Triodia opaolia		100	J	





Plot:	B011	Corner	nw	se
Date:	31-Mar	Camera	floora's camera	
Date Revisit:	7/07/2011	Photo #	2161 2162	
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3088	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	741635	Soil comments:	some creekline rocks present	
NW Northing:	7486742	Outcrop:	na .	
SE Easting:	741684	Litter cover (%)		
SE Northing:	7486692	Logs	Twigs	Leaves
Topography:	flowline flat	0.2	0.5	4
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	800	7
Time since fire (yrs):	plus 5	Mid		
Disturbance:	low	Lower	60	30
Condition:	excellent	Bare ground (%):	60	
Observations	flowline			
Species		Height (cm)	% AC	% DC
Acacia ?citrinoviridis		650	2	
Acacia citrinoviridis		800	6	
Acacia pruinocarpa			5	
Acacia pyrifolia var. pyrifolia		160	0.1	
Atalaya hemiglauca			0.2	
* Cenchrus ciliaris		60	28	
* Cenchrus setiger		70	0.2	
Cleome viscosa		20	0.01	
Cucumis maderaspatanus			0.1	
Indigofera monophylla		25	0.01	
Notoleptopus decaisnei		20	0.02	
Polycarpaea longiflora		30 10	0.01	
Ptilotus exaltatus var. exaltatu	Ptilotus exaltatus var. exaltatus		0.01	
Ptilotus obovatus		80	1	
Ptilotus obovatus var. obovatus			0.2	
Rhagodia eremaea		120	0.05	
Salsola australis			0.1	
Senna artemisioides subsp. helmsii			0.02	
Senna notabilis		3	0.01	
Solanum lasiophyllum		20	0.01	
Triodia basedowii			0.1	
Triodia epactia		80	3	





Plot:	B012	Corner	nw	se
Date:	31-Mar	Camera	floora's camera	
Date Revisit:	9/07/2011	Photo #	2163	2164
Initials:	il fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM		3107	
	50	Photo # Revisit: Soils		
Zone:			sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	741427	Soil comments:	some creekline rocks	
NW Northing:	7488521	Outcrop:	na	
SE Easting:	741477	Litter cover (%)		
SE Northing:	7488471	Logs	Twigs	Leaves
Topography:	flowline, flat	4		6
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	900	9
Time since fire (yrs):	pplus 5	Mid		
Disturbance:	low	Lower	60 45	
Condition:	excellent	Bare ground (%):	65	
Observations	same as b11, cattle			
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		900	9	
Acacia pruinocarpa			0.5	
Atalaya hemiglauca		210	0.1	
Boerhavia coccinea		10	0.1	
* Cenchrus ciliaris		30	20	
	Cleome viscosa		0.02	
Cucumis maderaspatanus			0.1	
Duperreya commixta			0.03	
Eremophila longifolia		240	0.8	
	Eriachne pulchella subsp. dominii		0.01	
	* Portulaca oleracea		0.01	
Rhagodia eremaea		220	0.1	
Triodia epactia		100	2	





Plot:	B013	Corner	nw	se	
Date:	31-Mar	Camera	floora's camera		
Date Revist:	9/07/2011	Photo #	2166	3167	
Initials: jl fw		Camera Revisit	Floora's camera		
Initals Revisit: FW / PM		Photo # Revisit:	3108		
Zone:	50	Soils	sandy loam		
Datum:	GDA94	Soil colour:	red brown		
NW Easting:	741488	Soil comments:	some creekline rocks		
NW Northing:	7488796	Outcrop:	na		
SE Easting:	741538	Litter cover (%)			
SE Northing:	7488746	Logs	Twigs	Leaves	
Topography:	flowline, flat				
Aspect:	na	STRATA	Ht (cm)	% Cover	
Slope:	0	Upper	700	5	
Time since fire (yrs):	plus 5	Mid			
Disturbance:	low	Lower	60	35	
Condition:	excellent	Bare ground (%):	60		
Observations	same as b11 and b12				
Species		Height (cm)	% AC	% DC	
Acacia citrinoviridis		700	5		
Acacia coriacea subsp. pend	dens	260	0.4		
Acacia inaequilatera		230	0.1		
Acacia pruinocarpa			2		
Acacia sclerosperma subsp.		240	0.3		
Acacia sclerosperma subsp.	sclerosperma	180	0.15		
Alternanthera nana		25	0.01		
Atalaya hemiglauca		80	0.1		
Boerhavia coccinea			0.05		
* Cenchrus ciliaris		60	35		
* Cenchrus ciliaris		50	1.5		
* Cenchrus ciliaris Cleome viscosa		110 15	0.5 0.01		
Corchorus sidoides subsp. s	idoides	110	0.1		
Cucumis maderaspatanus		110	0.01		
Duperreya commixta			0.02		
Enchylaena tomentosa		40	0.02		
Eremophila longifolia		150	0.15		
Polycarpaea longiflora			0.01		
* Portulaca oleracea		3	0.01		
Ptilotus obovatus		20	0.02		
Salsola australis		20	0.01		
Sclerolaena cornishiana		50	0.02		
Senna notabilis		30 40	0.03 0.02		
Triodia epactia	Solanum lasiophyllum Triodia apactia		2		
тпома орасна		120	<u></u>		





Plot:	B014	Corner	nw	se
Date:	31-Mar	Camera	floora's camera	
Date Revist:	9/07/2011	Photo #	2170	2169
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revist:	FW / PM	Photo # Revisit:	3109	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	740697	Soil comments:	some creekline rocks	
NW Northing:	7489768	Outcrop:		
SE Easting:	740747	Litter cover (%)		
SE Northing:	7489718	Logs	Twigs	Leaves
Topography:	flowline, flat			
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	400	6
Time since fire (yrs):	plus5	Mid		
Disturbance:	low	Lower	60	20
Condition:	excellent	Bare ground (%):	70	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia ?citrinoviridis		360	6	
Acacia pruinocarpa		400	4	
* Aerva javanica			0.05	
Atalaya hemiglauca		140	0.1	
Boerhavia coccinea			0.15	
* Cenchrus ciliaris		60	10	
Cleome viscosa		25	0.01	
Corchorus sidoides subsp.	. sidoides	100	0.06	
Cucumis maderaspatanus			0.1	
Gomphrena affinis subsp.	pilbarensis	50	0.02	
* Portulaca oleracea		3	0.02	
Ptilotus obovatus		30	0.01	
Rhagodia eremaea			0.03	
Senna artemisioides subsp	o. helmsii		0.03	
Senna notabilis		20	0.02	
Solanum lasiophyllum		40	0.05	
Sporobolus australasicus			0.04	
Triodia epactia Wahlenbergia tumidifructa		100	6	
		i	0.01	





Plot:	B015	Corner	nw	se
Date:	31-Mar	Camera	floora's camera	
Date Revist:	9/07/2011	Photo #	2173	2174
Initials:	jl fw	Camera Revist:	Floora's camera	1
Initials Revist:	FW / PM	Photo # Revist:	3119	
Zone:	50	Soils	sandy loam	1
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	742688	Soil comments:	some creekline re	ocks
NW Northing:	7491221	Outcrop:	na	
SE Easting:	742738	Litter cover (%)		
SE Northing:	7491171	Logs	Twigs	Leaves
Topography:	flowline, flat		<u> </u>	
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	111 (511)	70 00101
Time since fire (yrs):	plus5	Mid		
Disturbance:	low	Lower		
Condition:	very good	Bare ground (%):		
Observations	cattle	<u> </u>		
Species		Height (cm)	% AC	% DC
Abutilon lepidum sensl.		3 (4)	0.05	
Acacia citrinoviridis		700	4	
Acacia pruinocarpa		600	2	
Acacia sclerosperma s	ubsp. <i>sclerosperma</i>		0.3	
Acacia synchronicia			0.01	
Boerhavia coccinea			0.5	
* Cenchrus ciliaris		60	1	
* Cenchrus setiger		70	1	
Cleome viscosa		25	0.01	
Convolvulus clementii		15	0.01	
Convolvulus clementii		15	0.01	
Cucumis maderaspatar	านร		0.1	
Eremophila longifolia		140	2	
Maireana planifolia			0.03	
* Portulaca oleracea		3	0.1	
Pterocaulon sphaeranti		00	0.01	
		20	0.01	
Ptilotus obovatus		35	0.02	
		20	0.1	
Sclerolaena cornishiana Senna artemisioides su		50	0.02	
Senna notabilis	abop. Hollifoli	30	0.04	
Sida sp. spiciform pani	cles (E. Leyland s.n. 14		0.01	
Solanum lasiophyllum	,	40	0.01	
Sporobolus australasic	us		0.01	
Triodia epactia		100	5.5	





			1_	T	
\vdash	lot:	B016	Corner	nw	se
	ate:	31-Mar	Camera	floora's camera	0470
\vdash	ate Revisit:	9/07/2011	Photo #	2177	2178
\vdash	nitials:	jl fw	Camera Revisit:	Floora's camera	
Ir	nitials Revisit:	FW / PM	Photo # Revisit:	3120	
Z	one:	50	Soils	sand	
D	atum:	GDA94	Soil colour:	red brown	
N	W Easting:	742628	Soil comments:	many creekline ro	ocks present
_	W Northing:	7491702	Outcrop:	na	· · ·
\vdash	E Easting:	742678	Litter cover (%)		
	E Northing:	7491652	Logs	Twigs	Leaves
\vdash	opography:	flowline, flat	0.1	0.5	2
\vdash					
_	spect:	na	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	1200	1
\vdash	ime since fire (yrs):	plus5	Mid	250	6
D	isturbance:	low	Lower	60	20
С	ondition:	excellent	Bare ground (%):	75	
O	bservations	cattle, scatte	red corymbia hame	rsleyana adjacent	•
	Species		Height (cm)	% AC	% DC
	Acacia ancistrocarpa		200	5	
	Acacia citrinoviridis		280	0.5	
	Acacia dictyophleba		300	1.5	
	Acacia pyrifolia var. pyrifolia		250	0.5	
	Acacia sclerosperma subsp		150	2	
	Aristida holathera var. holat	hera		0.1	
	Atalaya hemiglauca		160	0.2	
Г	Boerhavia coccinea			0.02	
Г	Bulbostylis barbata		3	0.01	
*	Cenchrus ciliaris		60	4	
*	Cenchrus setiger		70	4	
	Cleome viscosa		20	0.01	
	Corchorus sidoides subsp.	sidoides		0.1	
	Corymbia hamersleyana			1	
	Cucumis maderaspatanus			0.1	
L	Enneapogon robustissimus		60	0.1	
	Eragrostis eriopoda		50	3	
L	Eriachne mucronata		50	1	
H	Eriachne pulchella subsp. d	ominii	0.5	0.06	
H	Euphorbia ?australis		25	0.01	
H	Euphorbia australis Euphorbia biconvexa		155	0.01 0.01	
\vdash	Gossypium australe		30	0.01	
H	Hakea lorea subsp. lorea		200	0.02	
H	Indigofera monophylla		30	0.03	
H	Notoleptopus decaisnei		80	0.03	
H	Paraneurachne muelleri			0.03	
H	Polycarpaea longiflora		25	0.02	
H	Ptilotus exaltatus var. exaltatus		10	0.01	
ľ	Ptilotus obovatus var. obova	atus		0.2	
	Rhynchosia minima		8	0.01	
	Rulingia luteiflora		180	0.15	
Ĺ	Senna artemisioides subsp.	helmsii	60	0.02	
	Senna notabilis		20	0.01	
L	Stylobasium spathulatum		80	0.02	
L	Tephrosia rosea var. glabrio	or	100	0.02	
H	Themeda triandra		120	0.2	
	Triodia epactia		110	8	

Б	lot:	B017	Corner	nw	se
_	ate:	31-Mar	Camera	floora's camera	36
	ate Revisit:	9/07/2011	Photo #	2181	2182
_	itials:	il fw		Floora's camera	2102
		,	Camera Revisit:		
-	itials Revisit:	FW / PM	Photo # Revisit:	3110	
_	one:	50	Soils	sandy loam	
D	atum:	GDA94	Soil colour:	red brown	
Ν	W Easting:	738933	Soil comments:	some creekline re	ocks
Ν	W Northing:	7491204	Outcrop:	na	
S	E Easting:	738983	Litter cover (%)		
S	E Northing:	7491154	Logs	Twigs	Leaves
Т	opography:	flowline, flat	0.5	0.5	2
	spect:	na	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	400	4
Т	ime since fire (yrs):	plus5	Mid		
D	isturbance:	low	Lower	60	30
С	ondition:	excellent	Bare ground (%):	60	
O	bservations		cattle, wide flo	wline	
	Species		Height (cm)	% AC	% DC
	Acacia citrinoviridis		400	1	
	Acacia inaequilatera			0.7	
	Acacia pruinocarpa		400	2	
*	Aerva javanica			0.02	
	Atalaya hemiglauca		250	0.6	
*	* Cenchrus ciliaris		60	25	
*	* Cenchrus ciliaris		1200	5	
L	Corymbia hamersleyana		700	3	
L	Cucumis maderaspatanus	3		0.05	
L	Hakea lorea subsp. lorea		400	1.5	
L	Rhagodia eremaea		100	0.14	
1	Triodia epactia		80	1	



Plot:	B018	Corner	nw	se
Date:	31-Mar	Camera	floora's camera	
Date Revisit:	9/07/2011	Photo #	2185	2186
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3111	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	738636	Soil comments:	some creekline ro	ocks
NW Northing:	7491700	Outcrop:	ns	
SE Easting:	738686	Litter cover (%)		
SE Northing:	7491650	Logs	Twigs	Leaves
Topography:	flowline, flat		1 1	22
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1000	5
Time since fire (yrs):	plus5	Mid		
Disturbance:	low	Lower	60	18
Condition:	excellent	Bare ground (%):	65	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia aneura		300	0.06	
Acacia citrinoviridis		220	0.5	
Acacia dictyophleba		120	0.1	
Acacia inaequilatera			0.5	
Acacia pruinocarpa		1000	5	
Atalaya hemiglauca		300	0.2	
* Cenchrus ciliaris		60	15	
Hakea lorea subsp. lorea	a	450	2	
* Portulaca oleracea		3	0.01	
Triodia epactia		100	3	



Plot:	B019	Corner	nw	se
Date:	1-Apr	Camera	floora's camera	
Date Revisit:	9/07/2011	Photo #	2199	2200
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3115	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	737677	Soil comments:	na	
NW Northing:	7493039	Outcrop:	na	
SE Easting:	737727	Litter cover (%)		
SE Northing:	7492989	Logs	Twigs	Leaves
Topography:	flowline adjacent to cre	1	0.5	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	2000	8
Time since fire (yrs):	plus5	Mid		
Disturbance:	low	Lower	60	30
Condition:	excellent	Bare ground (%):	65	
Observations:	cattle. next to Weely	Wolli creekline is roughl plot		neight of the
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		2	0.5	
Acacia pyrifolia var. pyrifolia		300	1	
Aerva javanica Amaranthus undulatus		60 70	0.8 0.15	
Atalaya hemiglauca		170	0.13	
Boerhavia coccinea		170	0.04	
Bulbostylis barbata		3	0.01	
* Cenchrus ciliaris		69	0.04	
* Cenchrus setiger		60	25	
Cleome viscosa		25	0.01	
Corchorus sidoides subsp. s	sidoides	80	0.25	
Eriachne pulchella subsp. de	ominii		0.06	
Eucalyptus victrix		2000	8	
Eucalyptus victrix			2	
Euphorbia australis		1300		
·			0.01	
		20	0.02	
Polycarpaea longiflora			0.02 0.02	
		20	0.02	





Plot:	B020	Corner	n	S
Date:	1/4/20111	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2204	2205
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3154	
Zone:	50	Soils	clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	735695	Soil comments:	many creekline ro	cks
NW Northing:	7498130	Outcrop:	na	
SE Easting:	735744	Litter cover (%)		
SE Northing:	7498080	Logs	Twigs	Leaves
Topography:	major channel	1	1	0.5
Aspect:	na	STRATA	Ht (cm)	% Cover
	creekline banks slope upwards at rroughly 15 degrees with evidence of			
Slope:	some erosion	Upper	1000	2
Time since fire (yrs):	plus5	Mid	180	5
Disturbance:	low	Lower	60	10
Condition: Observations	excellent going 50m	Bare ground (%): up the creekline in a		
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		180	3	
Acacia pyrifolia var. pyrifol	ia	220	1	
Acacia synchronicia			0.1	
Aristida holathera var. hola	athera		0.01	
Atalaya hemiglauca		120	0.11	
Boerhavia coccinea			0.03	
* Cenchrus ciliaris		60	4	
* Cenchrus setiger		60	5	
Cleome viscosa		25	0.06	
Corchorus crozophorifolius Corymbia hamersleyana	<u> </u>	1330 800	0.1	
Eucalyptus victrix		1000	1	
Euphorbia australis		1000	0.05	
Hakea lorea subsp. lorea			0.02	
Ipomoea muelleri			0.05	
Polycarpaea longiflora			0.04	
Ptilotus exaltatus var. exal	tatus	40	0.02	
Ptilotus exaltatus var. exaltatus Ptilotus obovatus		+	0.01	





Plot:	B021	Corner	nw	se	
Date:	1-Apr	Camera	floora's camera		
Date Revisit:	10/07/2011	Photo #	2206	2207	
Initials:	jl fw	Camera Revisit:	Floora's camera		
Initials Revisit:	FW / PM	Photo # Revisit:	3128		
Zone:	50	Soils	sandy clay loam		
Datum:	GDA94	Soil colour:	red brown		
NW Easting:	734349	Soil comments:	some creekline ro	cks	
NW Northing:	7497243	Outcrop:	na		
SE Easting:	734399	Litter cover (%)			
SE Northing:	7497193	Logs	Twigs	Leaves	
Topography:	creekline	0.5	0.5	6	
Aspect:	na	STRATA	Ht (cm)	% Cover	
Slope:	0, steep banks	Upper			
Time since fire (yrs):	plus5	Mid			
Disturbance:	low	Lower			
Condition:	excellent	Bare ground (%):			
Observations	Observations cattle, other bank has corymbia hamersleyana 1percent, acacia tree 20percent and rough grass 25percent,ng				
Species	-	Height (cm)	% AC	% DC	
Atalaya hemiglauca		220	0.2		
* Cenchrus setiger		60	50		
Eucalyptus victrix		1800	12		
Hakea lorea subsp. lorea		400	0.5		





Plot:	B022	Corner	nw	se
Date:	1-Apr	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2208	22009
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3127	
Zone:	50	Soils	clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	734697	Soil comments:		
NW Northing:	7496128	Outcrop:	na	
SE Easting:	734747	Litter cover (%)		
SE Northing:	7496078	Logs	Twigs	Leaves
Topography:	flowline next to creekbed	3	2	6
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1400	15
Time since fire (yrs):	plus5	Mid		
Disturbance:	low to medium	Lower	60	50
Condition:	very good	Bare ground (%):	20	
Observations				
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		1400	15	
Atalaya hemiglauca		400	0.5	
* Cenchrus setiger		60	50	
Eucalyptus victrix			0.5	





Plot:	B023	Corner	nw	se
Date:	1-Apr	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2212	2213
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3146	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	731421	Soil comments:	na	
NW Northing:	7500615	Outcrop:		
SE Easting:	731471	Litter cover (%)		
SE Northing:	7500565	Logs	Twigs	Leaves
Topography:	flowline	2	2	4
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1700	4
Time since fire (yrs):	5plus	Mid	1500	7
Disturbance:	low	Lower	70	25
Condition:	very good	Bare ground (%):	20	
Observations				
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		1500	7	
Atalaya hemiglauca		300	0.5	
* Cenchrus setiger		70	25	
Eucalyptus victrix		1700	4	
Salsola australis		40	0.01	





Plo	t·	B024	Corner	nw	se
Dat		2-Apr	Camera	floora's came	
	e Revisit:	N/A	Photo #	2215	2216
_	ials:	il fw	Camera Revisit:	N/A	
	ials Revisit:	N/A	Photo # Revisit:	N/A	
Zor		50	Soils	sandy loam	
	:um:	GDA94	Soil colour:	red brown	
	/ Easting:	743809	Soil comments:	whiite rocks	
	/ Northing:	7514011	Outcrop:	na	
	Easting:	743859		i ia	
	Northing:	7513961	Litter cover (%)	Turing	Lagyag
		flat	Logs	Twigs	Leaves 2
⊢-:	oography:			'	
	pect:	na	STRATA	Ht (cm)	% Cover
	pe:	0	Upper	350	6
	ne since fire (yrs):	plus5	Mid	200	4
Dis	turbance:	low	Lower	50	7
	ndition:	excellentt	Bare ground (%)	80	
Ob	servations	cattle			
	?Scaevola spinescens		50	0.2	
	Acacia aneura		350	2	
	Acacia synchronicia		200	4	
	Acacia tetragonophylla		100	0.3	
	Acacia xiphophylla		350	6	
	Atriplex sp.		60	1.5	
	Boerhavia coccinea			0.02	
*	Cenchrus ciliaris		50	7	
	Cleome viscosa		40	0.02	
	Dissocarpus paradoxus		20	0.01	
	Enchylaena tomentosa		20	0.03	
P4	Eremophila youngii subsp. lep	oidota	200	2	
	Lepidium pholidogynum		2	0.01	
	Maireana pyramidata		100	6	
	Melelauca ?glomerata		120	0.25	
	Poaceae sp. Polygala ?sp. Prostrate (P.K.	Latz 4000)	3	0.05 0.01	
*	Portulaca oleracea	Laiz 4300)	3	0.01	
	Ptilotus exaltatus var. exaltatu	IS	60	0.01	
				0.04	
	Ptilotus obovatus Rhagodia eremaea		100 180	0.05	
	Santalum lanceolatum		250	0.1	
	Scaevola spinescens		150	0.6	
	Sclerolaena densiflora		30	0.03	
	Senna artemisioides subsp. c	ligophylla	40	0.03	
	Senna artemisioides subsp. c		60	0.2	
	Portulaca oleracea	gopi iy ila	3	0.01	
	. C. Caldod Cloradod			0.01	





Plo	ot:	B025	Corner	nw	se
Da		2-Apr	Camera	floora's came	era
Da	te Revisit:	N/A	Photo #	2221	2222
Ini	tials:	jl fw	Camera Revisit:	N/A	.1
Ini	tials Revisit:	N/A	Photo # Revisit:	N/A	
Zo	ne:	50	Soils	clay	
Da	tum:	GDA94	Soil colour:	red brown	
N۷	/ Easting:	743445	Soil comments:	dry	
N۷	/ Northing:	7513636	Outcrop:	na	
SE	Easting:	743495	Litter cover (%)		
SE	Northing:	7513586	Logs	Twigs	Leaves
То	pography:	clay pan		0.2	1
As	pect:	na	STRATA	Ht (cm)	% Cover
	ppe:	0	Upper	, ,	
Tin	ne since fire (yrs):	plus5	Mid	300	4
Dis	sturbance:	low	Lower	60	7
Со	ndition:	excellent	Bare ground (%):	92	
Ob	servations				
	Species		Height (cm)	% AC	% DC
	?Scaevola spinescens		70	0.6	
	Acacia aneura		320	1	
	Acacia synchronicia		220	2	
	Acacia tetragonophylla		200	2	
	Aeschynomene indica		100	0.2	
	Alternanthera nodiflora		30	0.01	
	Atriplex amnicola		120	4	
*	Cenchrus ciliaris		50	0.5	
	Centipeda minima		20	0.01	
	Cleome viscosa		30	0.03	
	Corchorus tridens			0.01	
*	Echinochloa colona		60	0.05	
	Enteropogon ramosus		60	0.02	
-	Eragrostis ?setifolia		40	0.05	
	Eragrostis eriopoda		50	0.05	
D4	Eragrostis tenellula 4 Eremophila youngii subsp. lepidota		40 250	0.1	
P4	, , , , ,	Терійоїа		4	
	Eriachne benthamii		40 80		
*	Eulalia aurea		40	0.02 0.03	
_	Malvastrum americanum Marsilea hirsuta		40	0.03	
<u> </u>	Melaleuca glomerata		280	0.01	
-	Melaleuca yiomerata Melaleuca xerophila		300	11	
*	Vachellia farnesiana		10	0.02	
	vacnenia iamesiana		[10	0.02	1





Plo	t:	B026	Corner	nw	sse
Date:		2-Apr	Camera	floora's camera	
		N/A	Photo #	2223 2224	
Initials:		jl fw	Camera Revisit:	N/A	
		N/A	Photo # Revisit:	N/A	
Zor	ne:	50	Soils	sandy loam	
Dat	tum:	GDA94	Soil colour:	red brown	
NW	/ Easting:	744034	Soil comments:		
	/ Northing:	7513163	Outcrop:		
SE	Easting:	744084	Litter cover (%)		
	Northing:	7513113	Logs	Twigs	Leaves
	oography:	flat		1	2
\vdash	pect:	na	STRATA	Ht (cm)	% Cover
	pe:	0	Upper	(0111)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	ne since fire (yrs):	plus5	Mid	350	6
Dis	turbance:	low	Lower	60	7
Condition:		excellent	Bare ground (%):	92	
Ob	servations				
	Species		Height (cm)	% AC	% DC
	Acacia synchronicia		200	0.7	
	Acacia xiphophylla Atriplex amnicola		400	2	
			90	0.2	
	Atriplex codonocarpa		40	0.2	
	Boerhavia coccinea		5	0.03	
*	Brachyachne prostrata Cenchrus ciliaris		70	2	
	Cleome viscosa		60	0.06	
	Dactyloctenium radulans		25	0.5	
	Enteropogon ramosus		60	0.04	
	Eragrostis tenellula		50	0.4	
	Eremophila forrestii ?subsp. forrestii		130	0.3	
P4	Eremophila youngii subsp. le		180	0.5	
	Gomphrena affinis subsp. pill	barensis	50	0.02	
	Melaleuca xerophila		300	5	
	Poaceae sp.		10	0.02	
	Polycarpaea corymbosa		12	0.01	
*	Polycarpaea holtzei		5	0.01	
*	Portulaca oleracea		3	0.2	
	Portulaca oleracea		50	0.03	
	Ptilotus obovatus Sclerolaena cuneata		30	0.03	
	Scierolaeria curieata Senna ?sp. Meekatharra (E. Bailey 1-26)		30	0.02	
	Senna artemisioides subsp. helmsii		70	0.1	
	Senna glutinosa subsp. chatelainiana		200	0.15	





Plot:	B027	Corner	nw	se	
Date:	2-Apr	Camera	floora's camera		
Date Revisit:	N/A	Photo #	2225	2226	
Initials:	jl fw	Camera Revisit:	N/A		
Initials Revisit:	N/A	Photo # Revisit:	N/A		
Zone:	50	Soils	clay loam		
Datum:	GDA94	Soil colour:	red brown		
NW Easting:	744563	Soil comments:	numerous small rocks		
NW Northing:	7512459	Outcrop:			
SE Easting:	744613	Litter cover (%)			
SE Northing:	7512409	Logs	Twigs	Leaves	
Topography:	flat				
Aspect:	na	STRATA	Ht (cm)	% Cover	
Slope:	0	Upper			
Time since fire (yrs):	plus5	Mid			
Disturbance:	low	Lower			
Condition:	excellent	Bare ground (%):			
Observations	f	fw160 eremophila youngii flowers			
Species		Height (cm)	% AC	% DC	
Acacia synchronicia		130	0.6		
Acacia xiphophylla		200	0.8		
Brachyachne prostrata			0.1		
Cleome viscosa		30	0.02		
Dactyloctenium radulans			0.06		
Enchylaena tomentosa		50	0.03		
Enteropogon ramosus		60	0.1		
Eragrostis tenellula		50	0.11		
Eremophila forrestii ?subsp. fo	rrestii	120	0.2	-	
Maireana planifolia		3	0.01		
Maireana pyramidata		80	0.2		
* Portulaca oleracea		3	0.04		
* Portulaca oleracea		2 20	0.01		
	Ptilotus exaltatus var. exaltatus		0.01		
Salsola australis		30 130	0.02		
	Scaevola spinescens		0.5		
Sclerolaena cuneata	Sclerolaena cuneata		1		
Solanum lasiophyllum		50	0.04		
Trianthema triquetra		3	0.2		
Tribulus astrocarpus		2	0.01		





Plot:	B028	Corner	nw	se
Date:	3-Apr	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2231	2232
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3112	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	737551	Soil comments:	some creekline rocks	
NW Northing:	7492797	Outcrop:	na	
SE Easting:	737601	Litter cover (%)		
SE Northing:	7492747	Logs	Twigs	Leaves
Topography:	flowline, next to we	0.3	0.2	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1800	3
Time since fire (yrs):	plus5	Mid	800	2
Disturbance:	low	Lower	60	50
Condition:	excellent	Bare ground (%):	50	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		80	0.04	
Acacia pruinocarpa	Acacia pruinocarpa		2	
Acacia pyrifolia var. pyrifolia		200	0.25	
Aerva javanica		130	0.02	
Atalaya hemiglauca	, ,		0.2	
Boerhavia coccinea			0.01	
Capparis spinosa			0.04	
* Cenchrus setiger		60	50	
Eucalyptus victrix		1800	3	





DI - 1	ID000	0				
Plot:	B029	Corner	nw	se		
Date:	3-Apr	Camera	floora's camera			
Date Revisit:	9/07/2011	Photo #	2233	2234		
Initials:	jl fw	Camera Revisit:	Floora's camera			
Initials Revisit:	FW / PM	Photo # Revisit:	3121			
Zone:	50	Soils	sandy loam			
Datum:	GDA94	Soil colour:	red brown			
NW Easting:	736997	Soil comments:	na	na		
NW Northing:	7493158	Outcrop:	na	na		
SE Easting:	737047	Litter cover (%)				
SE Northing:	7493108	Logs	Twigs	Leaves		
Topography:	flat	0.1	0.5	1		
Aspect:	0	STRATA	Ht (cm)	% Cover		
Slope:	0	Upper				
Time since fire (yrs):	plus5	Mid	400	6		
Disturbance:	low	Lower	80	40		
Condition:	excellent					
Observations	cattle					
Species		Height (cm)	% AC	% DC		
Acacia ancistrocarpa		140	1			
Acacia dictyophleba	Acacia dictyophleba		0.3			
Acacia inaequilatera		400	5			
Acacia pruinocarpa			0.5			
Anthobolus leptomerioides		220	0.3			
Hakea lorea subsp. lorea		350	0.4			
Senna notabilis		20	0.01			
Triodia ? basedowii		80	40			





Plot:	B030	Corner	nw	se	
Date:	3-Apr	Camera	floora's camera		
Date Revisit:	9/07/2011	Photo #	2237	2236	
Initials:	jl fw	Camera Revisit:	Floora's camera		
Initials Revisit:	FW / PM	Photo # Revisit:	3123		
Zone:	50	Soils	sandy loam		
Datum:	GDA94	Soil colour:	red brown		
NW Easting:	736094	Soil comments:	na		
NW Northing:	7494163	Outcrop:			
SE Easting:	736141	Litter cover (%)			
SE Northing:	7494115	Logs	Twigs	Leaves	
Topography:	flat	0	0.2	2	
Aspect:	0	STRATA	Ht (cm)	% Cover	
Slope:	0	Upper			
Time since fire (yrs):	plus5	Mid	300	2	
Disturbance:	low	Lower	80	40	
Condition:	excellent	Bare ground (%):	60		
Observations	same as b29				
Species		Height (cm)	% AC	% DC	
Acacia dictyophleba		200	0.6		
Acacia inaequilatera		300	1		
Acacia pruinocarpa		300	0.2		
Acacia synchronicia			0.2		
* Cenchrus ciliaris		80	0.04		
Eragrostis eriopoda			0.02		
Triodia ? basedowii		80	40		
Triodia epactia		100	0.04		





Plot:	B031	Corner	nw	se
Date:	3-Apr	Camera	floora's camera	
Date Revisit:	9/07/2011	Photo #	2238	2239
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3124	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	735724	Soil comments:	naa	
NW Northing:	7494811	Outcrop:	na	
SE Easting:	735773	Litter cover (%)		
SE Northing:	7494761	Logs	Twigs	Leaves
Topography:	flat	_		
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1000	2
Time since fire (yrs):	plus5	Mid	400	4
Disturbance: medium		Lower	60	35
Condition:	very good	Bare ground (%):	70	
Observations	cattle damage			
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		120	0.15	
Acacia aneura			0.05	
Acacia pruinocarpa		400 300	2	
	Acacia sclerosperma subsp. sclerosperma		2	
	Atalaya hemiglauca		0.05	
* Cenchrus ciliaris		60	2	
* Cenchrus setiger		60	35	
Corymbia hamersleyana		800	1	
Cucumis maderaspatanus Hakea lorea subsp. lorea		400	0.02	
·		400	0.05	
Rhagodia eremaea Rhagodia eremaea		120	0.05	
Kriagodia eremaea		120	0.2	





Plot:	B032	Corner	nw	se
Date:	3-Apr	Camera	floora's camera	
Date Revitis:	10/07/2011	Photo #		
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initals Revisit:	FW / PM	Photo # Revisit:	3136	
Zone:	50	Soils	sandy loam with clay	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	732496	Soil comments:	na	
NW Northing:	7498545	Outcrop:	na	
SE Easting:	732546	Litter cover (%)		
SE Northing:	7498495	Logs	Twigs	Leaves
Topography:	flat	0	0.2	0.5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	320	5
Disturbance:	medium	Lower	60	5
Condition:	very good	Bare ground (%):	90	
Observations		of plant stress. corymbia hamersleyana, hakea lorea and a hard tree surrounding plot, collected pretty eremophila [fw166]		
Species	Species		% AC	% DC
Acacia ?synchronicia	Acacia ?synchronicia		3	
Acacia aneura		320	0.6	
Acacia citrinoviridis		320	0.8	
Acacia inaequilatera		250 70	1	
* Aerva javanica	* Aerva javanica		0.03	
Boerhavia coccinea			0.1	
Cenchrus ciliaris		60	6	
Cleome viscosa		40 60	0.02	
Paraneurachne muelleri			0.02	
Salsola australis		40	0.2	
Sclerolaena cornishiana			0.02	
Solanum lasiophyllum		40	0.2	

Plot:	B033	Corner	nw	se
Date:	4-Feb	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2240	2241
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3137	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	731873	Soil comments:	na	
NW Northing:	7498620	Outcrop:		
SE Easting:	731923	Litter cover (%)		
SE Northing:	7498570	Logs	Twigs	Leaves
Topography:	flat	0	1	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	300	1
Disturbance:	low	Lower	80	35
Condition:	excellent	Bare ground (%):	70	
Observations	sand dunes			
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		120	0.3	
Acacia aneura			0.2	
Acacia citrinoviridis			0.3	
Acacia coriacea subsp. pend	dens		0.2	
Acacia dictyophleba		70	0.04	
Acacia inaequilatera		300	1	
Acacia pachyacra		100	0.3	
Aristida holathera var. holath	nera	40	0.2	
Bonamia rosea		30	0.15	
* Cenchrus ciliaris		50	3	
Cleome viscosa		30	0.01	
Corchorus sidoides subsp. s	idoides		0.03	
Corymbia hamersleyana			0.5	
Cucumis maderaspatanus			0.03	
Dicrastylis cordifolia		40	0.02	
Eragrostis eriopoda		50	0.1	
Eriachne mucronata			0.02	
Hakea lorea subsp. lorea		300	0.3	
Petalostylis cassioides		50	0.05	
Scaevola parvifolia subsp. pa	arvifolia		0.1	
Triodia basedowii		80	35	





Plot:	B034	Corner	nw	se
Date:	3-Apr	Camera	floora's camera	30
Date Revisit:	8/07/2011	Photo #	2245	2244
Initials:	il fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3090	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	742993	Soil comments:	na	
NW Northing:	7487087	Outcrop:	na	
SE Easting:	743044	Litter cover (%)		
SE Northing:	7487037	Logs	Twigs	Leaves
Topography:	flat		0.5	3
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	300	6
Disturbance:	low	Lower	80	10
Condition:	excellent	Bare ground (%):	80	
Observations	excellent	Dare ground (70).	00	
Species		Height (cm)	% AC	% DC
Acacia pachyacra		300	2 2	70 2 3
Acacia pruinocarpa		320	0.3	
Acacia sclerosperma sub	sn sclerosnerma	300	4	
Aristida holathera var. ho	•	35	5	
Boerhavia coccinea	,atriora	30	0.5	
Bulbostylis barbata		2	0.05	
* Cenchrus ciliaris		60	2	
Cleome viscosa		30	0.01	
Corchorus sidoides subs	p. sidoides	40	0.02	
Dysphania kalpari			0.02	
Eragrostis eriopoda		40	4	
Goodenia microptera			0.01	
Indigofera monophylla		50	0.002	
Paraneurachne muelleri		50	0.02	
Ptilotus exaltatus var. exa	altatus	20	0.02	
Salsola australis		30	0.01	
Senna artemisioides sub	•	70	0.5	
Senna artemisioides sub	sp. <i>oligophylla</i>	80	0.5	
Senna notabilis		20	0.01	
Solanum lasiophyllum		50	0.2	
Trianthema pilosa		3	0.1	
Tribulus suberosus			0.02	
Triodia epactia		100	8	
Wahlenbergia tumidifruct	a		0.02	





P	lot:	B035	Corner	nw	se
-	ate:	3-Apr	Camera	floora's camera	36
ᆮ	ate Revisit:	8/07/2011	Photo #	2246	2247
⊢	itials:	il fw	Camera Revisit:	Floora's camera	
-	itals Revisit:	FW / PM	Photo # Revisit:	3091	
<u> </u>	one:	50	Soils	sandy loam	
_	atum:	GDA94	Soil colour:	red brown	
	W Easting:	742924	Soil colour:	some rocks presen	ıt
_	W Northing:	7487715		na	ıı
_	_		Outcrop:	lia	
_	E Easting:	742974	Litter cover (%)	-	
-	E Northing:	7487665	Logs	Twigs	Leaves
_	opography:	flat		0.2	0.5
	spect:	na	STRATA	Ht (cm)	% Cover
_	lope:	0	Upper	200	4
-	ime since fire (yrs):	plus5	Mid	300	1
	isturbance:	low	Lower	120	10
۲	ondition:	excellent	Bare ground (%):		
0	bservations	nearby crazy grass [fw169]			
L	Species		Height (cm)	% AC	% DC
	Acacia ?synchronicia		120	0.2	
L	Acacia pachyacra		150	2	
L	Aristida holathera var. holathe	era	40	0.05	
_	Boerhavia coccinea			0.6	
*	Bulbostylis barbata Cenchrus ciliaris		3 60	0.02 0.5	
\vdash	Chrysopogon fallax		130	0.5	
-	Cleome viscosa		30	0.04	
H	Corchorus sidoides subsp. sid	doides	30	0.15	
H	Dactyloctenium radulans		- -	0.03	
	Dysphania kalpari			0.02	
	Eragrostis eriopoda		50	1	
	Eragrostis tenellula		30	0.4	
	Eremophila forrestii ?subsp. f	orrestii	50	0.01	
Ĺ	Eriachne aristidea		75	0.1	
	Eriachne pulchella subsp. dor	mınii	10	0.01	
L	Euphorbia australis			0.01	
L	Goodenia microptera			0.01	
L	Goodenia prostrata		3	0.01	
L	Hakea lorea subsp. lorea			0.03	
\vdash	Heliotropium inexplicitum Hibiscus sturtii var. platychlan	nve	50	0.02 0.1	
H	Ipomoea muelleri	nys	50	0.01	
H	Paraneurachne muelleri		1	0.1	
	Perotis rara		8	0.01	
	Phyllanthus erwinii		3	0.01	<u> </u>
Ļ	Polycarpaea longiflora		10	0.01	
*	Portulaca oleracea			0.02	
Ĺ	Protulaca oleracea		3	0.02 0.06	
H	Pterocaulon sphaeranthoides Ptilotus astrolasius			0.06	
۲	Ptilotus exaltatus var. exaltatu	JS	20	0.02	
T	Ptilotus helipteroides		1	0.04	
	Ptilotus obovatus		30	0.01	
L	Salsola australis			0.03	
L	Senna artemisioides subsp. h		50	0.3	
L	Senna artemisioides subsp. o	oligophylla	25	0.05	
\vdash	Senna notabilis Sida arsiniata		25 50	0.2 0.01	
H	Solanum lasiophyllum		60	0.75	
H	Tephrosia supina		3	0.01	
Ī	Trianthema pilosa		4	0.05	
	Tribulus suberosus	_		0.1	

Triodia epactia 90 7	





Р	ot:	B036	Corner	nw	se
D	ate:	4-Apr	Camera	floora's camera	
D	ate Revisit:	9/07/2011	Photo #	2249	2250
In	itials:	jl fw	Camera Revisit:	Floora's camera	
In	itials Revisit:	FW / PM	Photo # Revisit:	3117	
Z	one:	50	Soils	sandy loam	
D	atum:	GDA94	Soil colour:	red brown	
N	W Easting:	737689	Soil comments:	some erosion in ch	annel
N	W Northing:	7493373	Outcrop:	na	
S	E Easting:	737739	Litter cover (%)		
S	E Northing:	7493323	Logs	Twigs	Leaves
To	opography:	minor offset channel runn	1	2	7
A	spect:	na	STRATA	Ht (cm)	% Cover
S	ope:	0	Upper	1800	15
Ti	me since fire (yrs):	plus5	Mid	400	10
D	isturbance:	low	Lower	50	50
С	ondition:	excellent	Bare ground (%):	40	
0	bservations	cattle			
	Species		Height (cm)	% AC	% DC
	Acacia citrinoviridis		1200	7	
	Acacia pruinocarpa		500	2	
*	Aerva javanica		50	0.02	
	Atalaya hemiglauca		200	0.1	
*	Cenchrus ciliaris		50	50	
Ш	Corymbia hamersleyana		1700	3	
Ш	Duperreya commixta			0.1	
Ш	Eucalyptus victrix		1800	5	
	Hakea lorea subsp. lorea		300	0.2	
	Solanum lasiophyllum			0.02	





Plot:	B037	Corner	nw	se
Date:	4-Apr	Camera	floora's camera	
Date Revisit:	9/07/2011	Photo #	2251	2252
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3118	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	737685	Soil comments:	na	
NW Northing:	7494017	Outcrop:	na	
SE Easting:	737735	Litter cover (%)		
SE Northing:	7493967	Logs	Twigs	Leaves
Topography:	flat	0.1	1	4
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1600	2
Time since fire (yrs):	plus5	Mid	1000	15
Disturbance:	low	Lower	50	20
Condition:	very good	Bare ground (%):	75	
Observations				
Species	l	Height (cm)	% AC	% DC
Acacia citrinoviridis		1000	5	
Acacia pruinocarpa		1000	5	
Atalaya hemiglauca		150	0.05	
* Cenchrus ciliaris		50	15	
Eucalyptus victrix		1600	2	
Hakea lorea subsp. lore	<u>a</u>	300	1	





Б	lot:	B038	Corner	DW/	60
	ate:	4-Apr	Camera	nw floora's camera	se
	ate Revisit:	5/07/2011	Photo #	2253	2254
	nitials:	il fw	Camera Revisit:	Floora's camera	2234
\perp	nitials Revisit:	FW / PM		3046	
\vdash			Photo # Revisit:		
\vdash	one:	50	Soils	sandy loam	
_	atum:	GDA94	Soil colour:	red brown	
_	W Easting:	738561	Soil comments:		
N	W Northing:	7493645	Outcrop:		
S	E Easting:	738610	Litter cover (%)		
S	E Northing:	7493595	Logs	Twigs	Leaves
T	opography:	flat	0.5	5 2	1
Α	spect:	0	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	,	
	ime since fire (yrs):	plus5	Mid	600	7
-	isturbance:	medium	Lower	60	10
ŕ		-			1.5
_	ondition:	very good	Bare ground (%):	85	
\vdash	bservations	cattle	Dare ground (70).	00	
۲	Species	cattle	Height (cm)	% AC	% DC
-	•		_ ` ` '		70 DC
-	Acacia ?synchronicia		60	0.1	
-	Acacia ?synchronicia		40 120	0.04	
-	Acacia ancistrocarpa Acacia aneura		400	8	
-	Acacia citrinoviridis		450	1	
	Acacia inaequilatera		430	I	
H	Acacia paraneura		600	1	
-	Acacia pruinocarpa		300	0.6	
H	Acacia pyrifolia var. pyrifolia		200	0.1	
	Boerhavia coccinea	-		0.5	
*	Cenchrus setiger		60	7	
	Corchorus sidoides subsp.	sidoides	5	0.1	
	Duperreya commixta			0.1	
	Eragrostis eriopoda			0.2	
	Euphorbia australis			0.01	
	Evolvulus alsinoides var. vi	llosicalyx	15	0.01	
	Goodenia prostrata		3	0.04	
	Gossypium australe		40	0.02	
	Hakea lorea subsp. lorea		350	0.5	
	Hibiscus sturtii var. platychl	amys	3	0.01	
	Ipomoea muelleri			0.04	
L	Perotis rara		6	0.01	
	Polycarpaea longiflora			0.01	
*	Portulaca oleracea		3	0.1	
L	Pterocaulon sphaeranthoide	es		0.01	
-	Ptilotus helipteroides Salsola australis		20	0.01	
-	Sclerolaena cornishiana		10	0.02	
H	Senna artemisioides subsp	. helmsii	50	0.06	
F	Senna notabilis		30	0.5	
T	Sida sp. Verrucose glands	F.H. Mollemans		0.02	
	Solanum lasiophyllum		60	0.8	
_					





Plot:	B039	Corner	nw	se
Date:	4-Apr	Camera	floora's camera	
Date Revisit:	5/07/2011	Photo #	2257	2258
Initials:	jl fw	Camera Revist:	Floora's camera	
Initals Revisit:	FW/PM	Photo # Revisit:	3045	
Zone:	50	Soils	clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	738510	Soil comments:	na	
NW Northing:	7494511	Outcrop:		
SE Easting:	738564	Litter cover (%)		
SE Northing:	7494461	Logs	Twigs	Leaves
Topography:	flat	0.5	2	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	1000	25
Disturbance:	medium	Lower	60	30
Condition:	very good	Bare ground (%):	70	
Observations	cattle			
Species	•	Height (cm)	% AC	% DC
Abutilon lepidum		40	0.02	
Acacia aneura		1200	8	
Acacia citrinoviridis		1000	4	
Acacia inaequilatera			0.2	
Acacia paraneura		800	1	
Acacia pruinocarpa		1000	2	
Acacia pyrifolia var. pyrifolia		300	0.2	
Atalaya hemiglauca			0.2	
Boerhavia coccinea			0.05	
* Cenchrus ciliaris		60	30	
Corymbia hamersleyana		800	2	
Cucumis maderaspatanus			0.02	
Gossypium australe			0.01	
Hakea lorea subsp. lorea		650	1	
* Portulaca oleracea		3	0.01	
Ptilotus obovatus		50	0.02	





Plot:	B040	Corner	nw	se
Date:	4-Apr	Camera	floora's came	
Date Revisit:	5/07/2011	Photo #	2259	2260
Initials:	jl fw	Camera Revisit:		<u> </u>
Initals Revisit:	FW / PM	Photo # Revisit:		
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	reddy brown	V
NW Easting:	739257	Soil comments:	some creekli	•
NW Northing:	7494959	Outcrop:		
SE Easting:	739307	Litter cover (%)		
SE Northing:	7494909	Logs	Twigs	Leaves
Topography:	flat	0.		4
		STRATA		% Cover
Aspect: Slope:	na na	Upper	Ht (cm)	% Cover
Time since fire (yrs):	plus5	Mid	600	10
Disturbance:	low	Lower	100	30
Disturbance:	IOW	Lower	100	30
Condition:	excellent	Bare ground (%):	50	
Observations	оловие и	(/s/:		
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		150	0.2	<u> </u>
Acacia citrinoviridis			1	
Acacia inaequilatera		400	7	
Acacia inaequilatera			3	
Acacia pruinocarpa		550	2	
Atalaya hemiglauca		180	0.04	
* Cenchrus ciliaris		50	2	
Chrysopogon fallax			0.2	
Cucumis maderaspatanus			0.03	
Eremophila latrobei subsp	o. latrobei		0.03	
Eremophila longifolia		120	0.05	
Gomphrena affinis subsp	. pilbarensis	30	0.02	
Gossypium australe		50	0.1	
Hakea lorea subsp. lorea		500	1	
Pterocaulon sphaeranthol	ides		0.01	
Ptilotus obovatus			0.02	
Rhagodia eremaea		90	0.05	
Salsola australis		30	0.02	
Senna notabilis		30	0.3	
Solanum lasiophyllum		60	0.4	
Triodia epactia		100	35	





Plot:	B041	Corner	nw	se
Date:	4-Apr	Camera	floora's came	era
Date Revisit:	5/07/2011	Photo #	2264	2265
Initials:	jl fw	Camera Revisit:		
Initals Revisit:	FW / PM	Photo # Revisit:		
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	740147	Soil comments:	some creekli	ne rocks
NW Northing:	7495798	Outcrop:		
SE Easting:	740197	Litter cover (%)		
SE Northing:	7495748	Logs	Twigs	Leaves
Topography:	flat, adjacent to creek	0.5	1	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	1000	8
Disturbance:	low	Lower	60	25
Condition:	excellent	Bare ground (%):	60	
Observations	cattle			
Species	•	Height (cm)	% AC	% DC
Acacia aneura		150	0.1	
Acacia citrinoviridis		1000	5	
Acacia dictyophleba		200	0.2	
Acacia inaequilatera			0.5	
Acacia pruinocarpa		1000	3	
Acacia pyrifolia var. pyrifo	olia	200	0.5	
* Aerva javanica		60	0.02	
Atalaya hemiglauca			0.04	
* Cenchrus ciliaris		50	15	
Hakea lorea subsp. lorea		250	0.5	
Scaevola spinescens		70	0.2	
Solanum lasiophyllum		30	0.01	
Triodia epactia		80	5	





Plot:	B042	Corner	nw	se
Date: 4-Apr		Camera	floora's camera	
Date Revisit:	5/07/2011	Photo #	2267	2268
Initials:	jl fw	Camera Revisit:		•
Initals Revisit:	FW / PM	Photo # Revisit:		
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	738844	Soil comments:		
NW Northing:	7496438	Outcrop:		
SE Easting:	738894	Litter cover (%)		
SE Northing:	7496388	Logs	Twigs	Leaves
Topography:	flat		2 2	5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	1000	20
Disturbance:	medium	edium Lower 60		30
Condition:	very good	Bare ground (%):		
Observations	cattle			24.50
Species		Height (cm)	% AC	% DC
Abutilon lepidum		30	0.01	
Acacia aneura		700	10	
Acacia citrinoviridis			4	
Acacia inaequilatera		000	0.1	
Acacia paraneura Acacia pruinocarpa		200 600	2	
Acacia pruinocarpa Acacia pyrifolia var.	nyrifolia	300	0.4	
	subsp. sclerosperma	300	0.4	
Atalaya hemiglauca	- I sop of the		0.05	
Boerhavia coccinea			0.02	
* Cenchrus ciliaris		50	10	
Duperreya commixta			0.04	
Eremophila longifolia		250	0.3	
* Malvastrum americai	num	30	0.01	
Psydrax latifolia			0.2	
Rhagodia eremaea		80	0.05	
Sporobolus australas	Sporobolus australasicus		0.02	





Plot:	B043	Corner	nw	se
Date:	4-Apr	Camera	floora's camera	
Date Revisit:	5/07/2011	Photo #	2269	2270
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initals Revisit:	FW / PM	Photo # Revisit:	3047	
Zone:	50	Soils	sandy clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	737940	Soil comments:		
NW Northing:	7496938	Outcrop:		
SE Easting:	737989	Litter cover (%)		
SE Northing:	7496888	Logs	Twigs	Leaves
Topography:	flat	_	1	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	` ,	
Time since fire (yrs):	plus5	Mid	4000	80
Disturbance:	medium	Lower	50	10
Condition:	very good	Bare ground (%):	90	
Observations	near fauna traps			
Species	•	Height (cm)	% AC	% DC
Acacia ?synchronicia		300	5	
Acacia ?synchronicia		60	2	
Acacia pruinocarpa		400	1	
Acacia sclerosperma subs	,		3.5	
Acacia sclerosperma subs	p. <i>sclerosperma</i>	300	6	
Acacia tetragonophylla		200	0.5	
* Cenchrus ciliaris		40	6	
Cleome viscosa		10	0.01	
Corymbia hamersleyana			0.02	
Ipomoea muelleri		10	0.02	
Rhagodia eremaea		40	0.01	
Salsola australis		30	0.03	
Senna artemisioides subsp		40 50	0.15	
	Senna artemisioides subsp. oligophylla		0.2	
Senna notabilis		20	0.01	
Solanum lasiophyllum		50	0.1	
Sporobolus australasicus			0.03	





Plot:	B044	Corner		
Date:	4-Apr	Camera	flooras camera	
Date Revisit:	11/07/2011	Photo #	2271	2272
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3153	
Zone:	50	Soils	sandy loam/clay	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	735183	Soil comments:		
NW Northing:	7498033	Outcrop:		
SE Easting:	735236	Litter cover (%)		
SE Northing:	7497981	Logs	Twigs	Leaves
Topography:	flat	0.5	2	0.5
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	, (2)	
Time since fire (yrs):	plus5	Mid	1000	8
Disturbance:	medium	Lower	50	5
Condition:	very good-excellent	Bare ground (%):	95	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		180	1	
Acacia ?synchronicia		50	0.2	
Acacia aneura		600	2	
Acacia citrinoviridis		800	1	
Acacia inaequilatera		150	0.4	
Acacia pruinocarpa		1200	4	
* Aerva javanica		40	0.01	
Boerhavia coccinea			0.02	
* Cenchrus ciliaris		40	2	
Cleome viscosa		25	0.01	
Eremophila longifolia			0.02	
Gossypium australe			0.03	
Ipomoea muelleri			0.1	
* Portulaca oleracea			0.02	
Salsola australis		30	0.04	
Sclerolaena diacantha			0.1	
Senna artemisioides subs		40	0.06	
Senna artemisioides subsp. oligophylla			0.03	
Senna notabilis		30	0.05	





Р	lot:	B045	Corner	nw	se
D	Pate:	4-Apr	Camera	floora's camera	
D	ate Revisit:	11/07/2011	Photo #	2273	2274
lı	nitials:	jl fw	Camera Revisit:	Floora's camera	
lı	nitials Revisit:	FW / PM	Photo # Revisit:	3152	
Z	one:	50	Soils	sandy loam	
D	atum:	GDA94	Soil colour:	red brown	
١	IW Easting:	734419	Soil comments:		
١	IW Northing:	7499155	Outcrop:		
S	E Easting:	734469	Litter cover (%)		
S	E Northing:	7499105	Logs	Twigs	Leaves
Т	opography:	flat		1	1
Α	spect:	na	STRATA	Ht (cm)	% Cover
S	lope:	0	Upper	•	
T	ime since fire (yrs):	plus5	Mid	1000	8
D	isturbance:	medium	Lower	50	15
c	Condition:	excellent	Bare ground (%):	85	
C	bservations				
	Species		Height (cm)	% AC	% DC
	Acacia ?synchronicia		350	3	
	Acacia aneura		1000	7	
	Acacia citrinoviridis		450	1	
	Acacia paraneura		50	0.02	
	Acacia pruinocarpa		400	0.2	
	Acacia sclerosperma subsp. sc	lerosperma	110	0.1	
	Atalaya hemiglauca			0.04	
	Boerhavia coccinea			0.01	
*	Cenchrus ciliaris		50	10	
	Chrysopogon fallax			0.1	
	Cleome viscosa		20	0.01	
*	Portulaca oleracea		3	0.01	
	Sclerolaena sp.				
	Senna artemisioides subsp. olig			0.1	
	Senna artemisioides subsp. oli	igophylla	60	0.1	
	Senna notabilis		30	0.05	





Plot:	B046	Corner	nw	se
Date:	5-Apr	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2282	2281
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3142	
Zone:	50	Soils	sandy clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	728971	Soil comments:		
NW Northing:	7501563	Outcrop:		
SE Easting:	729021	Litter cover (%)		
SE Northing:	7501512	Logs	Twigs	Leaves
Topography:	flat, possible flowline		0.5	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	Ì	
Time since fire (yrs):	plus5	Mid	250	4
Disturbance:	low	Lower	100	60
Condition:	excellent	Bare ground (%):	45	
Observations	Goodenia micoptera	Dare ground (70).	40	
	Gooderiia micoptera	Hoight (om)	% AC	% DC
Species Assertation		Height (cm)		70 DO
Acacia ?synchronicia Acacia ancistrocarpa		2000	0.05	
Acacia dictyophleba		2000	0.1	
Acacia dictyophieba Acacia pachyacra		1000	0.1	
Aristida holathera var. h	nolathera	40	0.1	
Boerhavia coccinea			0.01	
Bonamia rosea		30	1	
Corchorus sidoides sub	sp. sidoides	5	0.01	
Cullen leucochaites	·		0.2	
Cullen leucochaites		60	0.05	
Dicrastylis cordifolia		40	0.06	
Euphorbia australis			0.01	
Hakea chordophylla				
			0.2	
Hakea chordophylla Hakea lorea subsp. lore	ea ea	250	0.2	
Hakea lorea subsp. lore Ptilotus polystachyus	ea	40		
Hakea lorea subsp. lore Ptilotus polystachyus Senna notabilis	ea	40 20	0.1 0.03 0.05	
Hakea lorea subsp. lore Ptilotus polystachyus	ea	40	0.1 0.03	





Plot:	B047	Corner	nw	se
Date:	5-Apr	Camera	floora's camera	30
Date Revisit:	10/07/2011	Photo #	2286	2287
Initials:	il fw	Camera Revisit:	Floora's camera	ZZOI
Initials Revisit:	FW / PM		3141	
		Photo # Revisit:		
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	730116	Soil comments:		
NW Northing:	7500607	Outcrop:		
SE Easting:	730166	Litter cover (%)		
SE Northing:	7500557	Logs	Twigs	Leaves
Topography:	gtgg		0.5	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	800	2
Time since fire (yrs):	plus5	Mid	250	7
Disturbance:	low	Lower	100	30
Distarbarioe.	10 00	LOWER	100	
Condition	ave alle mt	Dave every d (0/).	45	
Condition:	excellent	Bare ground (%):	45	
Observations	<u> </u>	11 1 1 ()	0/ 10	% DC
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		200	0.15	
Acacia dictyophleba		250	5	
Acacia inaequilatera		200	0.6	
Acacia pachyacra		160	0.3	
Acacia spondylophylla		100 150	0.6	
Acacia tumida var. pilbarensis Aristida holathera var. holathera		150	0.0	
	inera	110	0.1	
Aristida inaequiglumis Boerhavia coccinea		110	0.02	
Bonamia rosea		30	1	
* Cenchrus ciliaris		100	35	
Corymbia hamersleyana		800	2	
Cullen leucochaites		30	0.02	
Dicrastylis cordifolia		40	0.03	
Eragrostis eriopoda		30	0.01	
Eremophila longifolia		200	0.3	
Gossypium australe		50	0.4	
Gossypium robinsonii		220	0.1	
Grevillea wickhamii subsp. hispidula		100	0.1	
Hybanthus aurantiacus		40	0.06	
Mollugo molluginea		10	0.02	
Perotis rara			0.01	
Polycarpaea longiflora		15	0.01	
Ptilotus obovatus var. obovatus			0.02	
Tephrosia rosea var. glabrior			0.05	
Themeda triandra			0.1	
Tribulus suberosus			0.01	
Triodia basedowii		100	5	
Triodia epactia			0.1	





Plot:	B048	Corner	nw	se
Date:	5-Apr	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2288	2289
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3145	
Zone:	50	Soils	clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	731978	Soil comments:		
NW Northing:	7500791	Outcrop:		
SE Easting:	732028	Litter cover (%)		
SE Northing:	7500741	Logs	Twigs	Leaves
Topography:	flat		3	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope: 0		Upper		
Time since fire (yrs):	plus5	Mid	350	
Disturbance: low		Lower	50	15
Condition:	excellent	Dono anound (0/)	75	
	excellent	Bare ground (%):	75	
Observations		Hoight (am)	% AC	% DC
Species County transision		Height (cm)		70 DC
Acacia ?synchronicia Acacia ancistrocarpa		270 180	0.2	
Acacia citrinoviridis		100	0.2	
Acacia dictyophleba		180	0.1	
Acacia inaequilatera		250	0.3	
Acacia pruinocarpa		350	2	
* Cenchrus ciliaris			15	
I TUERICHILUS CIIIARIS		50	110	
		50	0.1	
Chrysopogon fallax Hakea lorea subsp. lorea		350		
Chrysopogon fallax			0.1	





Plot:	B049	Corner	nw	se
Date:	5-Apr	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2290	22922
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3151	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	728689	Soil comments:		
NW Northing:	7502461	Outcrop:	na	
SE Easting:	728739	Litter cover (%)		
SE Northing:	7502411	Logs	Twigs	Leaves
Topography:	flat		0.5	0.5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	Fime since fire (yrs): plus5		400	2
Disturbance:	low	Lower	140	70
Condition:	excellent	Bare ground (%):	40	
Observations				
Species	•	Height (cm)	% AC	% DC
Acacia adsurgens		350	0.1	
Acacia ancistrocarpa		180	4	
Acacia dictyophleba			0.1	
Acacia pachyacra			0.1	
Bonamia rosea		30	0.3	
Cullen leucochaites		40	0.01	
Hakea lorea subsp. lorea		400	1	
Indigofera monophylla		40	0.3	
Scaevola parvifolia subsp.	parvifolia	20	0.01	
Triodia basedowii		100	25	
Triodia schinzii		140	30	





Plot:	B050	Corner	n	S
Date:	5-Apr	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2293	2294
Initials:	jl fw	Camera Revisit:	Lisa Bannister	
Initials Revisit:	SC / LB	Photo # Revisit:	lb0562	lb0563
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red	
NW Easting:	727469	Soil comments:	creekline lined w	ith small rocks
NW Northing:	7503487	Outcrop:	na	
SE Easting:	727519	Litter cover (%)		
SE Northing:	7503435	Logs	Twigs	Leaves
Topography:	minor creekline	_	1	3
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0-5	Upper		
Time since fire (yrs):	plus5	Mid	400	6
Disturbance:	low	Lower	100	50
Condition:	excellent	Bare ground (%):	50	
Observations			•	
Species		Height (cm)	% AC	% DC
Acacia dictyophleba		60	0.1	
Acacia tumida var. pilk	parensis	400	3	
Aristida inaequiglumis			15	
Aristida inaequiglumis		130	5	
* Cenchrus ciliaris		40	5	
Chrysopogon fallax		100	0.05	
Cleome viscosa		30	0.02	
corchorus crozophorifol			1	
Corchorus sidoides sub	osp. sidoides	80	0.03	
Dampiera candicans		50	0.02	
	Euphorbia australis		0.1	
	Gossypium robinsonii		0.05	
Grevillea wickhamii sub	osp. <i>hispidula</i>	200	0.1	
Indigofera monophylla		50	0.1	
Senna notabilis			0.01	
Stylobasium spathulatu		350	1	
Tephrosia rosea var. gl	labrior	50	0.05	





Ы	ot:	B051	Corner	nw	se
_	ate:	5-Apr	Camera	floora's camera	
Di	ate Revisit:	11/07/2011	Photo #	2295	2296
In	itials:	il fw	Camera Revisit:	Lisa Bannister	
In	itials Revisit:	FW / PM	Photo # Revisit:	lb0580	lb0581
-	one:	50	Soils	sandy loam	
\vdash	atum:	GDA94	Soil colour:	red brown	
_	W Easting:	727357	Soil comments:	led blowii	
-					
	W Northing:	7503715	Outcrop:	na	
_	E Easting:	727407	Litter cover (%)		
\vdash	E Northing:	7503665	Logs	Twigs	Leaves
-	ppography:	flat			
	spect:	na	STRATA	Ht (cm)	% Cover
	ope:	0	Upper	8000	1
-	me since fire (yrs):	plus5	Mid	160	4
Di	sturbance:	low	Lower	50	20
C	ondition:	excellent	Bare ground (%):	75	
0	bservations	cattle			
	Species		Height (cm)	% AC	% DC
П	Abutilon otocarpum		<u> </u>		
H	Acacia ?synchronicia		150	0.1	
H	Acacia aneura		600	1	
H	Acacia dictyophleba		160	0.2	
П	Aristida contorta			0.01	
	Aristida holathera var. holathera		40	0.02	
П	Aristida inaequiglumis			0.1	
	Asteraceae sp.			0.02	
	Boerhavia coccinea			0.15	
*	Cenchrus ciliaris		50	17	
	Chrysopogon fallax			0.05	
	Cleome viscosa		20	0.01	
Ш	Corymbia hamersleyana		800	1	
Ш	Dactyloctenium radulans		15	0.01	
Ш	Dysphania kalpari		20	0.01	
Н	Eragrostis eriopoda		22	0.01	
Н	Euphorbia boophthona		30	0.03	
Н	Gossypium australe		60	0.4	
Н	Haloragis gossei var. gossei	'	25	0.01	
H	Mollugo molluginea Perotis rara		25	0.02	
H			10	0.01	
Н	Polycarpaea holtzei Polycarpaea longiflora		12	0.01 0.01	
*	Portulaca oleracea		14	0.01	
*	Portulaca oleracea		3	0.03	
H	Pterocaulon serrulatum		Ť	0.02	
П	Ptilotus obovatus			0.03	
П	Salsola australis		30	0.02	
Ш	Senna ?sp. Meekatharra (E.		40	0.15	
Ц	Senna artemisioides subsp.	oligophylla		0.03	
Ц	Senna notabilis		40	0.2	
Н	Solanum lasiophyllum		60	0.1	
Н	Stylobasium spathulatum		160	1	
H	Trianthema pilosa Tribulus suberosus		3	0.03 0.1	
Н	Trichodesma zeylanicum			0.1	
H	Triodia longiceps		100	0.01	
Ш	rriodia iorigic e ps		100	U. I	





Plot:	B052	Corner	nw	se
Date:	5-Apr	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2297	2298
Initials:	il fw	Camera Revisit:	Lisa Bannister	
Initials Revisit:	FW / PM	Photo # Revisit:	lb0583	lb0584
Zone:	50	Soils	sandy loam	100001
Datum:	GDA94	Soil colour:	red brown	
	726892	Soil colour:		
NW Easting:			na	
NW Northing:	7504112	Outcrop:		
SE Easting:	726942	Litter cover (%)	<u> </u>	T _
SE Northing:	7504062	Logs	Twigs	Leaves
Topography:	flat		0.2	0.5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	300	3
Disturbance:	low	Lower	100	15
Condition:	excellent	Bare ground (%):	75	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		80	0.05	
Acacia ancistrocarpa		300	1	
Acacia inaequilatera			2	
Acacia inaequilatera		250	2	
Acacia pruinocarpa Aristida contorta		250	0.6	
Aristida contorta Aristida holathera var. holathera		50	0.01	
Aristida inaequiglumis		30	0.03	
Aristida inaequiglumis		100	1	
Boerhavia coccinea			0.03	
Bonamia rosea		30	4	
* Cenchrus ciliaris			0.03	
Cleome viscosa		30	0.01	
Corchorus sidoides subsp. sidoid	des	40	0.3	
Dicrastylis cordifolia		40	0.05	
Dysphania kalpari		30	0.02	
Enneapogon polyphyllus			0.01	
Eragrostis eriopoda		40	0.225	
Eremophila forrestii Eriachne aristidea		30	0.04	
Eriachne anstidea Eriachne pulchella subsp. domin	ii	10	0.01	
Eucalyptus gamophylla		250	0.01	
Euphorbia ?australis			0.02	
Goodenia microptera		40	0.01	
Hakea lorea subsp. lorea Haloragis gossei var. gossei		150	0.1 0.01	
Indigofera monophylla		40	0.01	
Keraudrenia nephrosperma		50	0.03	
Polycarpaea corymbosa			0.01	
Portulaca oleracea Portulaca oleracea		3	0.08	
Portulaca oleracea Ptilotus astrolasius		30	0.02	
Ptilotus calostachyus			0.03	
Ptilotus exaltatus var. exaltatus		50	0.14	
Ptilotus obovatus	ov 1-26)	30	0.01	
Senna ?sp. Meekatharra (E. Bail Senna glutinosa subsp. glutinosa		60 130	0.05 0.25	
Senna notabilis		30	0.02	
Sida sp. Pilbara (A.A. Mitchell PF	RP 1543)	50	0.1	
Solanum lasiophyllum		60	0.1	
Tribulus suberosus Triodia basedowii			0.1 7	
Triodia basedowii		100	7	
. Hodia baddadwii		1.00	1.	





Plot:	B053	Corner	nw	se
Date:	5-Apr	Camera	floora's camera	30
Date Revisit:	11/07/2011	Photo #	2299	2300
Initials:	il fw	Camera Revisit:	Lisa Bannister	2000
Initials Revisit:	FW / PM	Photo # Revisit:	lb0596	lb0597
Zone:	50	Soils	sandy clay loam	
	GDA94			
Datum:		Soil colour:	red brown	
NW Easting:	725838	Soil comments:		
NW Northing:	7504769	Outcrop:	na	
SE Easting:	725888	Litter cover (%)		
SE Northing:	7504719	Logs	Twigs	Leaves
Topography:	flat		0.5	3
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	350	5
Disturbance:	low	Lower	100	30
Condition:	excellent	Bare ground (%):	50	
Observations		Height (em)	0/ AC	% DC
Species		Height (cm)	% AC	70 DC
Acacia adsurgens		300	0.03	
Acacia ancistrocarpa		250	0.2	
Acacia inaequilatera		200	3.5 3.5	
Acacia inaequilatera Acacia pachyacra		300	0.03	
Acacia sclerosperma subsp. so	elerosperma	350	1	
Aristida holathera var. holather	•	40	1	
* Cenchrus ciliaris	<u>а</u>	40	0.03	
Cleome viscosa		20	0.03	
Corchorus sidoides subsp. sido	oides	30	0.06	
Cucumis maderaspatanus			0.3	
Eragrostis eriopoda		60	0.1	
Eriachne aristidea		30	0.01	
Euphorbia alsiniflora			0.01	
Goodenia microptera			0.01	
Gossypium australe			0.03	
Hakea lorea subsp. lorea		380	0.6	
Haloragis gossei var. gossei			0.01	
Ptilotus exaltatus var. exaltatus	3	50	0.04	
Ptilotus polystachyus		80	0.02	
Rhagodia eremaea		80	0.2	
Senna notabilis		30	0.05	
Trianthema pilosa		3	0.16	
Trichodesma zeylanicum			0.01	
Triodia basedowii		400	30	
Triodia basedowii		100	30	





Plot:	B054	Corner	nw	se
Date:	6-May	Camera	floora's came	ra
Date Revisit:	11/07/2011	Photo #	2303	2304
Initials:	jl fw	Camera Revisit:		
Initials Revisit:	FW / PM	Photo # Revisit:		
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	726948	Soil comments:		
NW Northing:	7505992	Outcrop:	na	
SE Easting:	726998	Litter cover (%)		
SE Northing:	7505942	Logs	Twigs	Leaves
Topography:	flat	0.1	1	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	500	20
Time since fire (yrs):	plus5	Mid	200	15
Disturbance:	medium	Lower	50	15
Condition:	very good	Bare ground (%):	85	
Observations	cattle grazing			
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		200	8	
Acacia ?synchronicia		200	1	
Acacia aneura		500	15	
Acacia sclerosperma subsp. scle	erosperma	180	1	
* Cenchrus ciliaris		50	12	
Centipeda minima			0.01	
Chrysopogon fallax			0.5	
Cleome viscosa		30	0.02	
Corchorus sidoides subsp. sidoid	des		0.01	
Dactyloctenium radulans			1	1
			0.02	
Euphorbia boophthona			0.01	
Euphorbia boophthona Maireana pyramidata			0.01 0.04	
Euphorbia boophthona		120	0.01	





Plot:	B055	Corner	nw	se
Date:	6-Apr	Camera	floora's came	era
Date Revisit:	11/07/2011	Photo #	2307	2308
Initials:	jl fw	Camera Revisit:		
Initials Revisit:	FW / PM	Photo # Revisit:		
Zone:	50	Soils	clay with peb	bles
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	725504	Soil comments:	na	
NW Northing:	7507142	Outcrop:	na	
SE Easting:	725554	Litter cover (%)		
SE Northing:	7507092	Logs	Twigs	Leaves
Topography:	flat		0.5	0.5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	300	5
Disturbance:	low	Lower	60	15
Condition:	excellent			
Observations		Heimbt (em)	% AC	% DC
Species Acacia ?synchronicia		Height (cm)	% AC	/0 DC
Atriplex amnicola		70	5	
Atriplex amnicola		60	0.05	
Boerhavia coccinea		00	0.00	
* Cenchrus ciliaris		60	2	
Centipeda minima			0.05	
Cleome viscosa		25	0.02	
Dactyloctenium radulans		25	0.02	
Gomphrena affinis subsp. p	ilbarensis		0.02	
Maireana pyramidata		80	3	
Marsilea hirsuta			0.01	
* Portulaca oleracea			0.01	
Ptilotus obovatus var. obova	atus		0.1	
Sclerolaena cuneata		20	0.02	
Sclerolaena diacantha		30	0.1	
Sporobolus australasicus		20	0.01	
Sporobolus australasicus			0.03	





Plot:	B056	Corner	nw	se
Date:	6-Apr	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2309	2310
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3148	
Zone:	50	Soils	clay	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	725912	Soil comments:		
NW Northing:	7507060	Outcrop:		
SE Easting:	725962	Litter cover (%)		
SE Northing:	7507010	Logs	Twigs	Leaves
Topography:	flat	0.2	2 1	2
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	` '	
Time since fire (yrs):	plus5	Mid	200	12
Disturbance:	low	Lower	60	10
Condition:	excellent	Bare ground (%):	92	
Observations	cattle. some flowlines			
Species	•	Height (cm)	% AC	% DC
Acacia ?synchronicia		200	10	
Acacia aneura			0.1	
Atriplex amnicola		60	4	
Boerhavia coccinea			0.01	
* Cenchrus ciliaris		40	2	
Dactyloctenium radulans		20	0.01	
Eragrostis ?setifolia		20	0.02	
Eremophila longifolia			0.1	
Eucalyptus ?leucophloia		300	0.2	
Ipomoea muelleri			0.01	
Maireana pyramidata		60	1.5	
* Portulaca oleracea			0.01	
Rhagodia eremaea		80	0.1	
Salsola australis		30	0.1	
Sclerolaena cuneata		30	0.1	
Sclerolaena diacantha		30	0.05	
Senna artemisioides subsp	. oligophylla		0.01	
Sporobolus australasicus			0.02	
Streptoglossa ?decurrens		50	0.01	





Plot:	B057	Corner	nw	se
Date:	6-Apr	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2311	2312
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3149	
Zone:	50	Soils	clay with some pe	bbles
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	726199	Soil comments:		
NW Northing:	7506581	Outcrop:		
SE Easting:	726249	Litter cover (%)		
SE Northing:	7506531	Logs	Twigs	Leaves
Topography:	flat with some flowlines	0	0.1	0.1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	200	3
Disturbance:	low	Lower	550	4
Condition:	excellent	Bare ground (%):	95	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		200	2	
Atriplex amnicola		60	0.3	
* Cenchrus ciliaris		40	1.5	
Dactyloctenium radulans		30	0.02	
Maireana pyramidata			0.1	
Ptilotus obovatus var. obovat	us		0.5	
Rhagodia eremaea		80	0.05	
Salsola australis		30	0.2	
Sclerolaena cuneata		30	0.1	
Sclerolaena diacantha		30	0.02	
Senna artemisioides subsp. o	oligophylla		0.01	
Sporobolus australasicus			0.02	
Trianthema triquetra			0.1	





Plot:	B058	Corner	nw	se
Date:	6-Apr	Camera	floora's came	
Date Revisit:	11/07/2011	Photo #	2313	2314
Initials:			2313	2314
	jl fw	Camera Revisit:		
Initials Revisit:	FW / PM	Photo # Revisit:		
Zone:	50	Soils	clay loam	
Datum:	GDA94	Soil colour:	red brown bla	ack
NW Easting:	725825	Soil comments:	na	
NW Northing:	7505736	Outcrop:		
SE Easting:	725875	Litter cover (%)		
SE Northing:	7505686	Logs	Twigs	Leaves
Topography:	flat	0.5		2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0-5	Upper	700	% COVE
Time since fire (yrs):		Mid	300	12
	plus5			
Disturbance:	medium	Lower	60	15
Condition:	very good	Bare ground (%):	80	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		250	7	
Acacia aneura		700	8	
Acacia aneura		200	1	
Acacia sclerosperma subsp.	sclerosperma	200	0.2	
Acacia tetragonophylla		180	0.2	
Aristida contorta			0.01	
Boerhavia coccinea			0.1	
* Cenchrus ciliaris		50	5	
Chrysopogon fallax		110	0.05	
Cleome viscosa		30	0.01	
Corchorus sidoides subsp. si	doides	20	0.03	
Dactyloctenium radulans		5	0.01	
Dysphania rhadinostachya			0.01	
Eragrostis tenellula		30	0.05	
Eremophila longifolia		150	0.05	
Gossypium australe		80	0.07	
Indigofera monophylla		10	0.01	
Ipomoea muelleri			0.02	
* Portulaca oleracea			0.05	
Ptilotus obovatus			0.03	
Salsola australis			0.01	
Sclerolaena cornishiana			0.01	
Senna glutinosa subsp?		150	0.03	
Sida platycalyx			0.01	
Solanum lasiophyllum		60	0.4	
Sporobolus australasicus			0.01	
Trianthema triquetra			0.01	
Triodia basedowii			2	
Triodia basedowii		80	2	





Plot:	B059	Corner		
Date:	40639	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2315	2316
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3150	
Zone:	50	Soils	clay loam	
			•	
Datum:	GDA94	Soil colour:	red brown black	
NW Easting:	727126	Soil comments:		
NW Northing:	7504732	Outcrop:	na	
SE Easting:	727176	Litter cover (%)		
SE Northing:	7504682	Logs	Twigs	Leaves
Topography:	flat	0.5	4	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	800	15
Time since fire (yrs):	less than 5	Mid		
Disturbance:	medium	Lower	50	15
2.010.001	modium	100.		
Condition:	very good	Bare ground (%):	80	
Observations	many dead trees	, , , , , , , , , , , , , , , , , , ,		
Species	, , , , , , , , , , , , , , , , , , , ,	Height (cm)	% AC	% DC
Abutilon fraseri		40	0.02	
Acacia ?synchronicia		150	0.01	
Acacia paraneura		100	3	
Boerhavia coccinea		100	0.02	
* Cenchrus ciliaris		50	15	
Centipeda minima		00	0.01	
Chrysopogon fallax		120	0.2	
Cleome viscosa		30	0.02	
Corchorus sidoides subsp. sid	loides	20	0.03	
Corymbia hamersleyana		500	1	
Dysphania kalpari			0.05	
Euphorbia ?australis			0.01	
Euphorbia boophthona			0.01	
Evolvulus alsinoides var. villos	sicalyx		0.1	
Gossypium australe	<u>-</u>	40	0.06	
Hakea lorea subsp. lorea			0.5	
Indigofera monophylla		40	0.04	
Ipomoea muelleri			0.15	
Nicotiana occidentalis subsp.	obliqua		0.01	
Notoleptopus decaisnei		30	0.02	
* Portulaca oleracea			0.04	
* Portulaca oleracea			0.02	
Pterocaulon sphaeranthoides			0.1	
Ptilotus obovatus			0.04	
Rhagodia eremaea		60	0.03	
Salsola australis		30	0.02	
Sclerolaena densiflora			0.02	
Senna glutinosa subsp. glutino	osa x		0.3	
Solanum lasiophyllum		1.0	0.1	
Sporobolus australasicus		10	0.01	





Plot:	B060	Corner	nw.	20
Date:	13-Apr	Corner	nw floora's camera	se
Date Revisit:	8/07/2011	Photo #	2433	2434
Initials:	il fw			2434
	,	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3104	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	738669	Soil comments:	some small rockks	s present
NW Northing:	7485539	Outcrop:	na	
SE Easting:	738719	Litter cover (%)		
SE Northing:	7485489	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	,	
Time since fire (yrs):	plus5	Mid	200	5
Disturbance:	low	Lower	100	20
Condition:	excellent	Bare ground (%):	50	
Observations	excellent	Bare ground (70).	30	
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adoxa		100	4	70 20
Acacia ancistrocarpa		150	3	
Acacia aricistrocarpa Acacia bivenosa		220	0.1	
Acacia biveriosa Acacia pachyacra		110	0.05	
Acacia tumida var. pilbarens			1	
Aristida holathera var. holath		200 60	0.1	
Bonamia rosea		40	0.1	
Cleome viscosa		50	0.1	
Corchorus sidoides subsp. si	idoides	10	0.01	
Corymbia hamersleyana		250	0.1	
Dicrastylis cordifolia		50	0.1	
Eragrostis eriopoda		50	0.1	
Eriachne aristidea		40	0.02	
Eriachne pulchella subsp. do	minii	5	0.01	
Euphorbia ?australis			0.01	
Grevillea wickhamii subsp. h	ispidula	200	0.5	
Hakea lorea subsp. lorea		200	0.05	
Haloragis gossei var. gossei			0.01	
Hybanthus aurantiacus		60	0.05	
Ipomoea muelleri			0.02	
Mollugo molluginea		20	0.2	
Paraneurachne muelleri			0.2	
Polycarpaea holtzei			0.01	
* Portulaca oleracea		20	0.01	
Ptilotus astrolasius Ptilotus calostachyus		30	0.15 0.02	
Ptilotus obovatus		20	0.02	
Scaevola parvifolia subsp. pa	arvifolia	30	0.02	
Senna artemisioides subsp. i			0.1	
Senna artemisioides subsp.		100	1	
Senna notabilis		10	0.01	
Trianthema pilosa			0.02	
Tribulus suberosus		130	3	
Tribulus suberosus			0.1	

Triodia basedowii	100	10	
Triodia epactia	120	0.1	
Wahlenbergia tumidifructa		0.02	





Plot:	B061	Corner	l n	s
Date:	13-Apr	Camera	floora's camera	
Date Revisit:	8/07/2011	Photo #	2441	2442
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3103	
Zone:	50	Soils	sandy clay	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	738280	Soil comments:	lined with rocks	
NW Northing:	7485696	Outcrop:	na	
SE Easting:	738263	Litter cover (%)		
SE Northing:	7485674	Logs	Twigs	Leaves
Topography:	flat flowline		0.5	0.5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	250	20
Disturbance:	low	Lower	100	50
Condition:	very good	Bare ground (%):		
Observations	50m transect al0ng creekline. disturbance adjacent to transect			
Species	•	Height (cm)	% AC	% DC
Acacia pyrifolia var. pyrifolia		200	2	
Acacia tumida var. pilbarensi		300	20	
Aristida holathera var. holathe	era	50	1	
Boerhavia coccinea			0.5	
* Cenchrus ciliaris		60	10	
Cleome viscosa		50	1	
Gossypium robinsonii		250	0.5	
Grevillea wickhamii subsp. hispidula		300	1	
Polycarpaea longiflora		30	0.02 0.1	
Ptilotus exaltatus var. exaltatus Santalum lanceolatum		30	1	
	Senna artemisioides subsp. oligophylla		1	
Sida sp. spiciform panicles (E		100 90)	0.04	
Triodia epactia	,	100	6	
		1	l .	





Plot:	B062	Corner	nw	se	
Date:	13-Apr	Camera	floora's camera		
Date Revisit:	8/07/2011	Photo #	2444	2443	
Initials:	jl fw	Camera Revisit:	Floora's camera	ı	
Initials Revisit:	FW / PM	Photo # Revisit;	3102		
Zone:	50	Soils	sandy loam		
Datum:	GDA94	Soil colour:	_		
			red brown		
NW Easting:	737472	Soil comments:	some small rocks		
NW Northing:	7485933	Outcrop:	nna		
SE Easting:	737522	Litter cover (%)			
SE Northing:	7485883	Logs	Twigs	Leaves	
Topography:	flat, at the base	e of the hill	0.5	0.5	
Aspect:	west	STRATA	Ht (cm)	% Cove	
Slope:	0-5	Upper	` ′		
Time since fire (yrs):	plus5	Mid	200	2	
Disturbance:	low	Lower	50	10	
Condition:	excellent	Bare ground (%):	75	10	
	excellent				
Observations		mouth of canyon, nic		% DC	
Species		Height (cm)	% AC	% DC	
Acacia adoxa var. adoxa		50	3		
Acacia bivenosa		200	0.15		
Acacia inaequilatera Acacia maitlandii		200 150	3		
Acacia malliandii Acacia pachyacra		200	0.5		
Acacia tumida var. pilbarensis		200	2		
Aristida holathera var. holathera		40	0.3		
Bulbostylis barbata		5	0.01		
Cleome viscosa		50	0.1		
Corchorus sidoides subsp. sido		50	1		
Dysphania rhadinostachya subs	sp. rhadinostachya	30	0.2		
Eragrostis eriopoda			0.1		
Eragrostis tenellula		50	0.02		
Eriachne aristidea		30	0.02		
Eriachne mucronata Eriachne pulchella subsp. domi	nii	20	0.05 0.1		
Fimbristylis simulans		15	0.01		
Gomphrena cunninghamii		20	0.02		
Goodenia microptera		50	0.02		
Goodenia microptera		40	0.02		
Grevillea wickhamii subsp. hisp	idula	110	0.1		
Hakea chordophylla			0.1		
Heliotropium ? pachyphyllum		30	2		
Heliotropium ? pachyphyllum			2		
Indigofera monophylla		40	0.05		
Keraudrenia nephrosperma		60	0.2		
Mollugo molluginea		20	0.03		
Ptilotus astrolasius Ptilotus auriculifolius		30 70	0.1		
Ptilotus calostachyus		40	0.01		
Ptilotus exaltatus var. exaltatus		50	1.5		
Senna artemisioides subsp. olig	gophylla	50	0.2		
Senna glutinosa subsp. glutinos		80	0.5		
Senna glutinosa subsp. pruinos	a	50	0.1		
Senna notabilis		40	0.1		
Sida sp.			0.1		
Solanum lasiophyllum		50	2	ļ	
Trianthema glossostigma			0.01 0.1	ļ	
Trianthema pilosa					

Triodia epactia	30	3	





Plot:	B063	Corner	nw	se
Date:	13-Apr	Camera	floora's camera	
Date Revisit:	7/07/2011	Photo #	2449	2450
Initials:	jkl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3084	
Zone:	50	Soils	rocky	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	741792	Soil comments:	rock	
NW Northing:	7486277	Outcrop:	heavy bis	
SE Easting:	741842	Litter cover (%)		
SE Northing:	7486227	Logs	Twigs	Leaves
Topography:	hillside		0.2	0.4
Aspect:	se	STRATA	Ht (cm)	% Cover
Slope:	5 to 15 degrees	Upper	500	3
Time since fire (yrs):	plus5	Mid	180	2
Disturbance:	low	Lower	50	20
Condition:	excellent	Bare ground (%):	50	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		150	0.1	
Acacia bivenosa		200	0.2	
Acacia citrinoviridis		40	0.02	
Eucalyptus leucophloia	subsp. <i>leucophloia</i>	500	3	
Fimbristylis simulans		10	0.02	
Grevillea wickhamii sub	sp. <i>hispidula</i>		0.5	
Polycarpaea holtzei		2	0.01	
Ptilotus exaltatus var. exaltatus			0.01	
Senna artemisioides subsp. helmsii		80	0.1	
Senna artemisioides subsp. oligophylla			0.03	
Senna glutinosa subsp. glutinosa			0.1	
Senna glutinosa subsp.	x luerssenii	110	0.5	
Tribulus suberosus		50	0.1	
Triodia sp. Shovelanna	Hill (S. van Leeuwen 3	38 30	50	





Plot:	B064	Corner	nw	se
Date:	13-Apr	Camera	floora's camera	
Date Revisit:	7/07/2011	Photo #	2452	2453
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3082	
Zone:	50	Soils	rocky	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	741307	Soil comments:		
NW Northing:	7485829	Outcrop:	many bis	
SE Easting:	741357	Litter cover (%)		
SE Northing:	7485779	Logs	Twigs	Leaves
Topography:	hillside		0.1	0.1
Aspect:	west	STRATA	Ht (cm)	% Cover
Slope: 5 to 15		Upper		
Time since fire (yrs): plus5		Mid	80	2
Disturbance: low		Lower	30	50
Condition:	excellent	Bare ground (%):	50	
Observations	drainage lines			
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adox	а	50	0.5	
Acacia pruinocarpa		110	0.2	
Fimbristylis simulans		10	0.05	
Senna artemisioides subsp. helmsii			0.15	
Senna artemisioides subsp. helmsii		110	0.2	
Senna artemisioides subsp. oligophylla		50	0.1	
Senna glutinosa subsp. glutinosa		150	2	
Senna glutinosa subsp. pruinosa		100	0.5	
Tribulus suberosus		50	0.1	
Triodia sp. Shovelanna	Hill (S. van Leeuwe	30	50	





Б	lot:	B065	Corner	n 1	_
	ate:	13-Apr	Camera	n floora's camera	S
_	ate Revisit:	7/07/2011		2454	2455
			Photo #		2455
		jl fw	Camera Revisit:	Floora's camera	
\vdash	itials Revisit:	FW / PM	Photo # Revisit:	3083	
-	one:	50	Soils	sandy loam with rocks	
_	atum:	GDA94	Soil colour:	red brown	
	W Easting:	741154	Soil comments:		
N	W Northing:	7485819	Outcrop:	many bis	
S	E Easting:	741200	Litter cover (%)		
S	E Northing:	7485799	Logs	Twigs	Leaves
T	opography:	creekline		1	2
Α	spect:	west	STRATA	Ht (cm)	% Cover
	lope:	0-55	Upper	, ,	
_	ime since fire (yrs):	plus5	Mid	300	15
-	isturbance:	low	Lower	80	60
Н					
٦	ondition:	excellentt	Bare ground (%):		
-			• • • • • • • • • • • • • • • • • • • •		
0	bservations	50	m transect. creekline	coming from hills	
	Species		Height (cm)	% AC	% DC
H	Acacia adoxa var. adoxa		60	0.5	
	Acacia ancistrocarpa		200	4	
	Acacia citrinoviridis		180	0.6	
	Acacia pruinocarpa		200	2	
	Aristida holathera var. holathera		40	0.1	
*	* Cenchrus ciliaris		40	10	
	Cleome viscosa		30	0.1	
	Cucumis maderaspatanus			0.1	
	Duperreya commixta			0.02	
	Eriachne mucronata		50	0.1	
	Euphorbia australis			6	
	Euphorbia boophthona			0.02	
	Gomphrena cunninghamii			0.02	
_	Gossypium australe		30	0.1	
	Gossypium robinsonii	-2-1-1-	250	4	
L	Grevillea wickhamii subsp. his	spiauia — — — — — — — — — — — — — — — — — — —	300	10	
L	Hybanthus aurantiacus		140	0.01	
L	Indigofera monophylla		110	2	
L	Notoleptopus decaisnei		50	0.04	
_	Paraneurachne muelleri		50	0.1	
H	Polycarpaea longiflora Ptilotus exaltatus var. exaltatus		30 50	0.1	
\vdash			80	0.1	
\vdash	Ptilotus obovatus		150	2	
H	Senna artemisioides subsp. oligophylla Senna glutinosa subsp. glutinosa		100	0.1	
	Senna glutinosa subsp. glutinosa Senna glutinosa subsp. x luerssenii		100	0.1	
	Themeda triandra		100	0.5	
	Trachymene oleracea subsp.	oleracea	10	0.1	
	Triodia epactia		80	50	



Plot:	B066	Corner	nw	se
Date:	13-Apr	Camera	floora's camera	
Date Revisit:	7/07/2011	Photo #	2458	2459
Initials:	jl fw	Camera Revisit:	Floora's camera	ı
Initials Revisit:	FW / PM	Photo # Revisit:	3081	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	742350	Soil comments:		
NW Northing:	7485680	Outcrop:	na	
SE Easting:	742400	Litter cover (%)		
SE Northing:	7485630	Logs	Twigs	Leaves
Topography:	flat	0.1	0.5	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	400	4
Disturbance:	low	Lower	100	28
Condition:	excellent	Bare ground (%):	50	
Observations				
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adoxa		50	0.05	
Acacia dictyophleba		350	2	
Acacia inaequilatera		35	2	
Aristida hygrometrica			0.05	
Corymbia hamersleyana		800	1	
Cucumis maderaspatanus	S		0.15	
Dicrastylis cordifolia		50	0.2	
Eragrostis eriopoda		50	0.1	
Eriachne mucronata		50	0.02	
Hakea lorea subsp. lorea		300	1	
Rhagodia eremaea		80	0.1	
Scaevola spinescens	on alieranhydla	80	1	
Senna artemisioides subs	sp. oligophylla	70	0.2	
Trianthema pilosa		00	0.02	1
Triodia epactia		80	25	
Triodia schinzii		100	1	





Plot:	B067	Corner	nw	se	
Date:	14-Apr	Camera	floora's camera		
Date Revisit:	7/07/2011	Photo #	2467	2468	
Initials:	jl fw	Camera Revisit:	Floora's camera		
Initials Revisit:	FW / PM	Photo # Revisit:	3079		
Zone:	50	Soils	rocky sandy loam	1	
Datum:	GDA94	Soil colour:	red brown		
NW Easting:	741892	Soil comments:			
NW Northing:	7485707	Outcrop:	bis		
SE Easting:	741942	Litter cover (%)			
SE Northing:	7485657	Logs	Twigs	Leaves	
Topography:	hillside		1	4	
Aspect:	south	STRATA	Ht (cm)	% Cover	
Slope:	15 to 25	Upper	` ′		
Time since fire (yrs):	plus5	Mid	250	8	
Disturbance:	low	Lower	30	50	
Condition:	excellentt	Bare ground (%):	30		
Ol	steep hill climb.	ase of hills = 30m strip of triodia red awn, starts at			
Observations	·		easting 742100 100m east		
Species		Height (cm)	% AC	% DC	
Acacia bivenosa		250	7		
* Cenchrus setiger		100	0.2		
Cleome viscosa		30	0.01		
Eremophila jucunda subsp	o. pulcherrima	100	0.3		
Eriachne aristidea		30	0.1		
Eriachne mucronata		40	0.5		
Eucalyptus leucophloia su	bsp. <i>leucophloia</i>	350	1.5		
Euphorbia boophthona		5	0.01		
Fimbristylis simulans		20	0.1		
Gomphrena cunninghamii		25	0.02		
Goodenia muelleriana		20	0.01		
Gossypium robinsonii Hibiscus coatesii		30	0.1		
Polycarpaea holtzei		2	0.01		
Ptilotus obovatus			0.2		
Senna artemisioides subs	o. oligophvlla	30	0.05		
Senna glutinosa subsp. gl		80	0.02		
Senna glutinosa subsp. pr		120	0.5		
Senna glutinosa subsp. x		110	0.1		
Senna notabilis		30	0.04		
Trachymene oleracea sub	sp. <i>oleracea</i>	20	0.04		
Triodia epactia		60	8		
Triodia sp. Shovelanna Hi	II (S. van Leeuwen 38	35) 40	40		





Plot:	B068	Corner	nw	se
Date:	14-Apr	Camera	floora's camera	
Date Revisit:	7/07/2011	Photo #	2469	2470
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3080	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	742144	Soil comments:		
NW Northing:	7485650	Outcrop:	na	
SE Easting:	742194	Litter cover (%)		
SE Northing:	7485600	Logs	Twigs	Leaves
Topography:	flat, base of hills		3	5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0 to 1	Upper	, ,	
Time since fire (yrs):	plus5	Mid	230	6
Disturbance:	low	Lower	130	30
Condition:	excellent	Bare ground (%):	60	
Observations		<u> </u>		
Species		Height (cm)	% AC	% DC
Acacia bivenosa		180	1	
Acacia dictyophleba		120	4	
Acacia pachyacra		200	1	
Aristida holathera var. he	olathera	49	0.01	
* Cenchrus ciliaris		40	0.01	
Corchorus sidoides subs	sp. sidoides	40	0.05	
Dicrastylis cordifolia		50	0.2	
Eragrostis eriopoda		50	0.2	
Eriachne aristidea		30	0.1	
Eucalyptus gamophylla		200	0.5	
Grevillea wickhamii subs	sp. hispidula	200	1	
Hybanthus aurantiacus	, , ,	80	0.01	
Senna artemisioides sub	sp. oligophylla	60	0.2	
Senna notabilis	(c.l DDD 4540)	30	0.02	
Sida sp. Pilbara (A.A. Mi	itcnell PKP 1543)		0.1	
Trianthema pilosa		400	0.1	
Triodia schinzii		130	25	





Plo	ot:	B069	Corner	nw	se
	te:	14-Apr	Camera	floora's camera	
Da	te Revisit:		Photo #	2471	2472
Initials:		il fw	Camera Revisit:	Floora's camera	
Ini	tials Revisi	FW / PM	Photo # Revisit:	3105	
Zo	ne:	50	Soils	red brown sandy lo	oam
Da	tum:	GDA94	Soil colour:	red brown	
N۷	V Easting:	739571	Soil comments:		
	V Northing:		Outcrop:	some small bif roc	ks
SE	Easting:	739622	Litter cover (%)		
SE	Northing:	7485501	Logs	Twigs	Leaves
		lower slope		1	0.5
		north west	STRATA	Ht (cm)	% Cover
		0 to 5	Upper	500	1
	ne since fir		Mid	250	4
	sturbance:		Lower	100	29
		excellent	Bare ground (%):	80	
Ob		base of bif hill			
	Species		Height (cm)	% AC	% DC
	Acacia pac		200	0.2	
		nida var. pilbarensis	250	0.5	
	Aristida ho			0.04	
	Cleome vis		30	0.02	
		namersleyana	500	1.5	
	Eriachne m			0.04	
	Fimbristylis		20	0.02	
	Goodenia			0.03	
		vickhamii subsp. hispidula	250	3	
	Mollugo mo		20	0.03	
	Polycarpae		2	0.02	
<u> </u>	Ptilotus cal			0.02	
<u> </u>		misioides subsp. oligophylla	50	0.04	
<u> </u>		inosa subsp. glutinosa	130	0.3	
<u> </u>		inosa subsp. pruinosa	40	0.01	
		rosea var. glabrior		0.02	
		ne oleracea subsp. oleracea	50	0.06	
	Tribulus su			0.01	
	Triodia epa		100	3	
	Triodia epa		50	2	
		Shovelanna Hill (S. van Leeuwen 3835)	30	12	
	Wahlenber	gia tumidifructa		0.02	





Plot:	B070	Corner	nw	se
Date:	14-Apr	Camera	floora's camera	
Date Revisit:	8/07/2011	Photo #	2474	2475
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3097	
Zone:	50	Soils	rocky with loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	737621	Soil comments:	bif rocks	
NW Northing:	7486471	Outcrop:		
SE Easting:	737671	Litter cover (%)		
SE Northing:	7486421	Logs	Twigs	Leaves
Topography:	lower slope of a bif hi		0.2	0.5
Aspect:	east	STRATA	Ht (cm)	% Cover
Slope:	0 to 5	Upper		
Time since fire (yrs):	plus5	Mid	200	3
Disturbance:	low	Lower	40	15
Condition:	excellent	Bare ground (%):	85	
Observations	drainage lines have t	riodia sticky with more wickhamii	dense snappy gum	and grevilla
Species		Height (cm)	% AC	% DC
Aristida holathera var. h	olathera		0.1	
Dysphania kalpari			0.01	
Eucalyptus leucophloia s	subsp. <i>leucophloia</i>	250	0.2	
Fimbristylis simulans		10	0.2	
Grevillea wickhamii subsp. hispidula				
	sp. <i>nispiaula</i>	250	1	
Mollugo molluginea	sp. <i>nispidula</i>	250	0.01	
Mollugo molluginea Polycarpaea longiflora	sp. <i>nispidula</i>	250	0.01 0.01	
Mollugo molluginea	sp. <i>nispidula</i>	250	0.01	
Mollugo molluginea Polycarpaea longiflora * Portulaca oleracea Ptilotus calostachyus		50	0.01 0.01	
Mollugo molluginea Polycarpaea longiflora * Portulaca oleracea Ptilotus calostachyus Senna glutinosa subsp.		50 1120	0.01 0.01 0.02 0.01 0.05	
Mollugo molluginea Polycarpaea longiflora * Portulaca oleracea Ptilotus calostachyus		50	0.01 0.01 0.02 0.01 0.05 0.01	
Mollugo molluginea Polycarpaea longiflora * Portulaca oleracea Ptilotus calostachyus Senna glutinosa subsp. Senna notabilis Solanum lasiophyllum		50 1120 5	0.01 0.01 0.02 0.01 0.05 0.01	
Mollugo molluginea Polycarpaea longiflora * Portulaca oleracea Ptilotus calostachyus Senna glutinosa subsp. Senna notabilis Solanum lasiophyllum Tribulus suberosus		50 1120 5	0.01 0.01 0.02 0.01 0.05 0.01	





Plot:	B071	Corner	T nw	se
Date:	14-Apr	Camera	floora's camera	- 55
Date Revisit:	8/07/2011	Photo #	2484	2485
Initials:	il fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3098	
Zone:	50	Soils	rocky with loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	737722	Soil comments:	base of bif hills	
NW Northing:	7486506	Outcrop:	na	
SE Easting:	737772	Litter cover (%)		
SE Northing:	7486456	Logs	Twigs	Leaves
Topography:	flat with some creeklines from bifhill runoff		0.5	0.5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	300	6
Disturbance:	low	Lower	80	10
Condition: Observations	excellent	Bare ground (%):	85	
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adoxa		50	1	7020
Acacia inaequilatera		250	11	
Aristida holathera var. hola	thera	50	0.1	
Dicrastylis cordifolia		60	0.15	
Eucalyptus gamophylla			0.06	
Euphorbia ?australis			0.02	
Fimbristylis simulans		20	0.06	
Grevillea wickhamii subsp.	-	300	8	
Haloragis gossei var. goss	ei		0.01	
Mollugo molluginea		30	0.03	
Polycarpaea holtzei		2	0.01	
Polycarpaea longiflora		10	0.01	
Portulaca oleracea Pterocaulon sphaeranthoide			0.08	
Ptilotus calostachyus	98	80	0.01	
Senna glutinosa subsp. glu	tinosa	110	0.2	
Senna glutinosa subsp. pru		100	0.1	
Senna notabilis		10	0.01	
Solanum lasiophyllum			0.04	
Stylobasium spathulatum			0.4	
Trianthema glossostigma		200	0.04	
Triodia epactia		100	7	
Triodia ? basedowii		60	4	
Wahlenbergia tumidifructa			0.02	





Plot:	B072	Corner	nw	se
Date:	14-Apr	Camera	floora's camera	
Initials Revisit;	8/07/2011	Photo #	2487	2488
Initials:	il fw	Camera Revisit:	Floora's camera	
Date Revisit:	FW / PM	Photo # Revisit:	3094	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:		
			red brown	
NW Easting:	738206	Soil comments:	some small rocks	
NW Northing:	7486730	Outcrop:	na	
SE Easting:	738256	Litter cover (%)		
SE Northing:	7486680	Logs	Twigs	Leaves
Topography:	flat		2	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	200	12
Disturbance:	low	Lower	80	20
Condition:	excellent	Bare ground (%):	90	
Observations	OXCONOTIC .	Dai o gi odila (70).	00	
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adoxa		60	2.5	70 00
Acacia maitlandii		20	0.15	
Acacia maitiandii Acacia pachyacra		140	0.13	
Acacia tumida var. pilbaren	sis	200	2	
Aristida holathera var. holath		50	0.5	
Bonamia rosea		30	0.01	
Cleome viscosa		50	0.14	
Corchorus sidoides subsp. s	ridoides	40	0.05	
Dicrastylis cordifolia			0.05	
Dysphania rhadinostachya s	ubsp. rhadinostachya	30	0.01	
Eragrostis eriopoda		50	0.1	
Eriachne mucronata			0.1	
Fimbristylis simulans		10	0.05	
Gomphrena cunninghamii		20	0.01	
Goodenia microptera			0.02	
Grevillea wickhamii subsp. h	nispidula	250	3	
Hakea chordophylla		150	0.2	
Haloragis gossei var. gosse	i		0.01	
Indigofera monophylla			0.02	
Mollugo molluginea		15	0.2	
Petalostylis cassioides		200	4	
* Portulaca oleracea			0.01	
Ptilotus astrolasius		30	0.05	
Ptilotus calostachyus		60	0.04	
Ptilotus exaltatus var. exalta	tus	50	0.02	
Ptilotus obovatus	o m vita lia	20	0.01	
Scaevola parvifolia subsp. p		30 60	0.15	
Senna artemisioides subsp. Senna glutinosa subsp. gluti	* ' '	110	0.4	
Senna notabilis	iiosa	40	0.01	
Solanum lasiophyllum		50	0.1	
Stylobasium spathulatum		160	1	
Tephrosia rosea var. glabrio	r	40	0.1	
Themeda triandra		80	0.02	
•		•	•	

Trianthema pilosa		0.2	
Tribulus suberosus		0.1	
Triodia epactia	100	4	
Triodia ? basedowii	70	5	
Yakirra australiensis	15	0.02	





_		ı	I		
	lot:	B073	Corner	е	W
	ate:	14-Apr	Camera	floora's camera	
_	ate Revisit:	8/07/2011	Photo #	2496	2491
	itials:	jl fw	Camera Revisit:	Floora's camera	
In	itials Revisit:	FW / PM	Photo # Revisit:	3093	
Z	one:	50	Soils	sandy loams	
D	atum:	GDA94	Soil colour:	red brown	
N	W Easting:	738090	Soil comments:	creekline rocks	
_	NW Northing: 7486912		Outcrop:	na	
_	E Easting:	738040	Litter cover (%)		
_	E Northing:	7486901	Logs	Twigs	Leaves
_	opography:	creekline	090	2	5
_	spect:	na	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	Tit (Cili)	70 COVEI
	ime since fire (yrs):	plus5	Mid	300	50
-	isturbance:	'	Lower	100	
ש	isturbance:	low	Lower	100	50
С	ondition:	excellent	Bare ground (%):	20	
		50m transect east to			
0	bservations	west varies from 10 to			
	Charies	20m wide	Heimbt (em)	% AC	% DC
	Species Acacia adoxa var. adoxa		Height (cm)	% AC	70 DC
	Acacia adoxa var. adoxa Acacia pyrifolia var. pyrifolia		300	5	
	Acacia pyriiolia var. pyriiolia Acacia tumida var. pilbarensi	c	300	25	
	Bonamia rosea	<u> </u>	30	6	
*	Cenchrus ciliaris		100	60	
-	Cleome viscosa		50	1	
-	Corchorus sidoides subsp. sid	loides	00	0.05	
	Corymbia hamersleyana	10/400	400	1	
	Dicrastylis cordifolia		100	0.1	
	Eragrostis eriopoda		40	0.5	
	Euphorbia biconvexa			0.02	
	Gossypium robinsonii		280	1	
	Grevillea wickhamii subsp. his	spidula	300	8	
	Hybanthus aurantiacus		50	1	
	Mollugo molluginea		20	0.1	
	Paraneurachne muelleri		60	0.1	
	Petalostylis cassioides		200	4	
	Rhynchosia minima			0.03	
	Scaevola spinescens			0.1	
	Senna notabilis		30	0.1	
	Sida sp. Pilbara (A.A. Mitchell	PRP 1543)	40	0.01	
	Stylobasium spathulatum		80	0.5	
	Tephrosia rosea var. glabrior		50	0.1	
	Themeda triandra		110	0.2	
_	Triodia epactia		120	10	
	Wahlenbergia tumidifructa			0.01	
1	Yakirra australiensis		20	0.02	





Plot:	B074	Corner	nw	se
Date:	14-Apr	Camera	floora's camera	- 55
Date Revisit:	8/07/2011	Photo #	2497	2498
Initials:	il fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3096	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	739717	Soil comments:		
NW Northing:	7486761	Outcrop:		
SE Easting:	739767	Litter cover (%)		
SE Northing:	7486711	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1000	5
Time since fire (yrs):	plus5	Mid	300	6
Disturbance:	low	Lower	100	25
Condition:	excellent	Bare ground (%):	60	
Observations				-/-
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		250	5	
Acacia citrinoviridis		150	0.2	
Acacia dictyophleba		200	0.2	
Acacia inaequilatera		300	3	
Acacia pachyacra		160	1	
Acacia pruinocarpa	,	900	1	
Aristida holathera var. holat	nera		0.1	
Atalaya hemiglauca		220	0.6	
Boerhavia coccinea		50	0.01	
* Cenchrus ciliaris		50	3	
Cleome viscosa Corchorus sidoides subsp.	sidoidos	50	0.05	
·	sidoldes	50 900	0.1	
Corymbia hamersleyana Eragrostis eriopoda		40	1	
Gomphrena cunninghamii		20	0.01	
Hakea chordophylla		20	0.04	
Rhagodia eremaea			0.06	
Senna artemisioides subsp.	helmsii	70	0.00	
Senna notabilis		20	0.01	
Solanum lasiophyllum		50	0.02	
Trianthema pilosa			0.01	
Triodia epactia		100	15	
			1	





Plot:	B075	Corner	nw	se
Date:	14-Apr	Camera	floora's camera	
Date Revisit:	8/07/2011	Photo #	2501	2502
Initials:	jl fw		Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3095	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	738995	Soil comments:		
NW Northing:	7486987	Outcrop:	na	
SE Easting:	739045	Litter cover (%)		
SE Northing:	7486837	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus5	Mid	400	6
Disturbance:	low	Lower	100	40
Condition:	excellent	Bare ground (%):	35	
Observations				
Species		Height (cm)	% AC	% DC
Acacia pachyacra		400	4	
Aristida holathera var. hol	athera	30	0.1	
Cleome viscosa		50	0.04	
Corchorus sidoides subsp	o. sidoides		0.03	
Dicrastylis cordifolia		50	0.1	
Grevillea wickhamii subsp	•	250	0.4	
Haloragis gossei var. gos	sei		0.01	
Petalostylis cassioides		200	3	
Scaevola parvifolia subsp	. parvifolia	30	0.01	
Senna notabilis		20	0.1	
Trianthema pilosa			0.02	
Triodia epactia		70	65	_
Velleia panduriformis		25	0.02	
Yakirra australiensis		20	0.1	





Plot:	B076	Corner	nw	se
Date:	14-Apr	Camera	floora's camera	30
Date Revisit:	8/07/2011	Photo #	2508	2507
Initials:	il fw		Floora's camera	
	FW / PM	Camera Revisit:		
Initials Revisit:		Photo # Revisit:	3092	
Zone:	50	Soils	clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	738447	Soil comments:		
NW Northing:	7487494	Outcrop:	na	
SE Easting:	738499	Litter cover (%)		
SE Northing:	7487446	Logs	Twigs	Leaves
Topography:	flat, flowlines		3	8
Aspect:	naa	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	, ,	
Time since fire (yrs):	plus5	Mid	400	12
Disturbance:	low	Lower	100	70
			1.00	
Condition:	excellent	Bare ground (%):	15	
		Bare ground (%).	15	
Observations	cattle	11-1-1 (/)	0/ 10	% DC
Species		Height (cm)	% AC	% DC
Acacia arida		150	0.05	
Acacia maitlandii		200	0.2	
Acacia pyrifolia var. pyrifolia		300	3	
Acacia spondylophylla	10	60	2	
Acacia tumida var. pilbarens Aristida holathera var. holathe		400	8	
	э <i>г</i> а		0.2	
Boerhavia coccinea * Cenchrus ciliaris		60	0.03 35	
Cleome viscosa		40	0.1	
Corchorus lasiocarpus subsp	2 lasiocarnus	40	0.02	
Corchorus sidoides subsp. si	•	50	0.02	
Eragrostis eriopoda	40/400	30	0.2	
Eriachne aristidea		15	0.02	
Eriachne pulchella subsp. do.	minii	10	0.05	
Eucalyptus gamophylla		400	2	
Euphorbia biconvexa		30	0.02	
Gossypium australe		150	2	
Gossypium robinsonii		200	0.5	
Grevillea wickhamii subsp. hi	spidula	220	1.5	
Hakea lorea subsp. lorea	,		0.1	
Hybanthus aurantiacus		50	0.05	1
Indigofera monophylla			0.1	
Mollugo molluginea		10	0.01	
Notoleptopus decaisnei			0.01	
Petalostylis cassioides		200	0.5	
Polycarpaea longiflora		20	0.02	
Ptilotus astrolasius			0.1	
Ptilotus exaltatus var. exaltat	us	30	0.03	
Ptilotus obovatus		80	0.3	
Rhynchosia minima	aliana mb: -!!-	100	0.03	
Senna artemisioides subsp.	<u> </u>	100	3	
Senna glutinosa subsp. glutir	เบรส	50	0.05	
Solanum lasiophyllum Stylobasium spathulatum		50 200	0.02	
Stylobasium spathulatum		 200	4	<u> </u>

Tephrosia rosea var. glabrior		0.02	
Themeda triandra		0.1	
Trachymene oleracea subsp. oleracea	20	0.01	
Trichodesma zeylanicum var. zeylanicum	50	0.05	
Triodia epactia	100	10	
Triumfetta leptacantha		0.06	
Wahlenbergia tumidifructa		0.3	





Plot:	B077	Corner	nw	se
Date:	15-Apr	Camera	floora's camera	
Date Revisit:	7/07/2011	Photo #	2512	
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3067	
Zone:	50	Soils	sandy loam with	small bif rocks
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	744937	Soil comments:		
NW Northing:	7483764	Outcrop:	na	
SE Easting:	744987	Litter cover (%)		
SE Northing:	7483714	Logs	Twigs	Leaves
Topography:	lower		0.1	0.2
Aspect:	slope below bifhills	STRATA	Ht (cm)	% Cover
Slope:	0 too 5	Upper	, ,	
Time since fire (yrs):	plus5	Mid	200	1
Disturbance:	low	Lower	30	15
Condition:	excellent	Bare ground (%):	90	
Observations	stream zones have r	nore dense triodia ba mergent corymbia ha		achyacra and
Species		Height (cm)	% AC	% DC
Acacia adoxa var. adoxa			0.1	
Acacia inaequilatera			0.15	
	Acacia pyrifolia var. pyrifolia		0.1	
Dysphania rhadinostachya subsp. rhadinostachya		180	0.1	
		20	0.01	
Fimbristylis simulans	subsp. rhadinostachya	20 10		
Fimbristylis simulans Grevillea wickhamii subsp.	subsp. rhadinostachya	20 10 100	0.01 0.04 1	
Fimbristylis simulans Grevillea wickhamii subsp. Hakea lorea subsp. lorea	subsp. rhadinostachya hispidula	20 10 100 240	0.01 0.04 1 0.2	
Fimbristylis simulans Grevillea wickhamii subsp. Hakea lorea subsp. lorea Heliotropium? pachyphyllu	subsp. rhadinostachya hispidula	20 10 100 240 20	0.01 0.04 1 0.2 0.01	
Fimbristylis simulans Grevillea wickhamii subsp. Hakea lorea subsp. lorea Heliotropium ? pachyphyllu Indigofera monophylla	subsp. rhadinostachya hispidula	20 10 100 240 20 20	0.01 0.04 1 0.2 0.01 0.02	
Fimbristylis simulans Grevillea wickhamii subsp. Hakea lorea subsp. lorea Heliotropium ? pachyphyllu Indigofera monophylla Ptilotus astrolasius	subsp. rhadinostachya hispidula	20 10 100 240 20 20 30	0.01 0.04 1 0.2 0.01 0.02 0.01	
Fimbristylis simulans Grevillea wickhamii subsp. Hakea lorea subsp. lorea Heliotropium ? pachyphyllu Indigofera monophylla Ptilotus astrolasius Ptilotus calostachyus	subsp. rhadinostachya hispidula	20 10 100 240 20 20 30 90	0.01 0.04 1 0.2 0.01 0.02 0.01 0.05	
Fimbristylis simulans Grevillea wickhamii subsp. Hakea lorea subsp. lorea Heliotropium? pachyphyllu Indigofera monophylla Ptilotus astrolasius Ptilotus calostachyus Senna glutinosa subsp. pro	subsp. rhadinostachya hispidula	20 10 100 240 20 20 30	0.01 0.04 1 0.2 0.01 0.02 0.01 0.5 0.1	
Fimbristylis simulans Grevillea wickhamii subsp. Hakea lorea subsp. lorea Heliotropium ? pachyphyllu Indigofera monophylla Ptilotus astrolasius Ptilotus calostachyus Senna glutinosa subsp. pro Trianthema glossostigma	subsp. rhadinostachya hispidula	20 10 100 240 20 20 30 90 120	0.01 0.04 1 0.2 0.01 0.02 0.01 0.5 0.1 0.02	
Fimbristylis simulans Grevillea wickhamii subsp. Hakea lorea subsp. lorea Heliotropium? pachyphyllu Indigofera monophylla Ptilotus astrolasius Ptilotus calostachyus Senna glutinosa subsp. pro	subsp. rhadinostachya hispidula im uinosa	20 10 100 240 20 20 30 90	0.01 0.04 1 0.2 0.01 0.02 0.01 0.5 0.1	



Plot:	B078	Corner	nw	se
Date:	15/04/2011	Camera	floora's camera	30
Date Revisit:	7/07/2011	Photo #	2515	2514
Initials:	il fw	Camera Revisit:	Floora's camera	2011
Initials Revisit:	FW / PM	Photo # Revisit:	1 loora o camera	
Zone:	50	Soils	rocky loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	744044	Soil comments:	bif rockks	
NW Northing:	7484085	Outcrop:	bif	
SE Easting:	744094	Litter cover (%)		
SE Northing:	7484035	Logs	Twigs	Leaves
Topography:	mid slope bif hill		0.2	0.2
Aspect:	west	STRATA	Ht (cm)	% Cover
Slope:	5 to 15	Upper		
Time since fire (yrs):	plus 5	Mid	250	0.5
Disturbance:	low	Lower	40	15
Condition:	excellent	Bare ground (%):	85	
Observations		• ` ` `		
Species	<u>.</u>	Height (cm)	% AC	% DC
Acacia ?synchronicia		100	0.02	
Acacia adoxa var. adoxa		30	0.2	
Acacia inaequilatera			0.3	
Acacia pyrifolia var. pyrifolia		250	0.3	
Calytrix carinata		30	0.01	
Corchorus lasiocarpus ?subsp. parvus		40	0.1	
Dampiera candicans			5	
Dampiera candicans		3	5	
Eriachne mucronata			0.2	
Euphorbia ?australis			0.02	
Fimbristylis simulans		5	0.5	
Grevillea wickhamii subsp. h	ispidula	80	0.2	
Keraudrenia nephrosperma		50	0.05	
Ptilotus astrolasius		30	0.01	
Ptilotus calostachyus	4	80	0.4	
Ptilotus exaltatus var. exalta		50	0.5	
Senna artemisioides subsp. Senna glutinosa subsp. gluti	<u> </u>	50	0.05	
1 1		110	0.1	
Sida sp. spiciform panicles (⊏. ∟eyiand s.n. 14/		0.03	
Solanum lasiophyllum		40	0.1	
Tribulus suberosus		30	0.1	
Triodia epactia		30	U.S	
Triodia sp. Shovelanna Hill (S van Lagrican 2	20	15	





Plot:	B079	Corner	nw	se
Date:	15/04/2011	Camera	floora's camera	36
Date Revisit:	7/07/2011	Photo #	2516	2517
Initials:	il fw	Camera Revisit:	Floora's camera	2017
Initials Revisit:	FW / PM	Photo # Revisit:	3073	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	744156	Soil comments:	many small bif roo	rke
NW Northing:	7483794	Outcrop:	na	JN3
SE Easting:	744206	Litter cover (%)	Tiu .	
SE Northing:	7483744	Logs	Twigs	Leaves
Topography:	flat, valley of bifhills	Logo	2	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0 to 1	Upper	Tit (Cili)	70 COVE1
Time since fire (yrs):	plus 5	Mid	200	2
Disturbance:				25
Disturbance:	low	Lower	50	25
			0.0	
Condition:	excellent	Bare ground (%):	80	
Observations			24.22	0/ 00
Species		Height (cm)	% AC	% DC
Acacia pachyacra			0.06	
Acacia pyrifolia var. pyrifolia		150	0.5	
Acacia tumida var. pilbaren		180	6	
Aristida holathera var. holati	hera	50	0.2	
Atalaya hemiglauca		180	0.3	
* Cenchrus ciliaris		50	0.04	
Cleome viscosa		40	0.02	
Corchorus lasiocarpus ?sub	sp. <i>parvu</i> s	50	0.04	
Dicrastylis cordifolia		50	0.02	
Eriachne mucronata		30	0.1	
Gomphrena cunninghamii		30	0.1	
Gossypium robinsonii		120	0.1	
Grevillea wickhamii subsp. I	hispidula	100	3	
Hakea chordophylla		200	0.1	
Indigofera monophylla		30	0.5	
Petalostylis cassioides			0.5	
Polycarpaea longiflora		20	0.01	
Ptilotus exaltatus var. exaltatus		50	0.05	
Ptilotus obovatus		50	0.05	
Ptilotus obovatus			0.1	
Senna artemisioides subsp.		100	11	
Senna glutinosa subsp. glut	inosa	60	0.1	
Solanum lasiophyllum		40		
Tephrosia rosea var. glabrio	or	70	3	
Trianthema pilosa			0.01	
Triodia epactia		60	10	





Plot:	B080	Corner	nw	se
Date:	15/04/2011	Camera	floora's camera	
Date Revisit:	7/07/2011	Photo #	2522	2523
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3075	
Zone:	50	Soils	rocky	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	743728	Soil comments:	bif rocks	
NW Northing:	7483838	Outcrop:	small bif outcrops	S
SE Easting:	743778	Litter cover (%)		
SE Northing:	7483788	Logs	Twigs	Leaves
Topography:	mid slope bifhills		0.1	2
Aspect:	north	STRATA	Ht (cm)	% Cover
Slope:	5 to 15	Upper		
Time since fire (yrs):	plus 5	Mid	200	0.5
Disturbance:	low	Lower	30	35
Condition:	excellent	Bare ground (%):	70	
Observations		snappy gums further	up slope	
Species	I	Height (cm)	% AC	% DC
Acacia ?synchronicia		220	0.2	
Fimbristylis simulans		10	1	
Grevillea wickhamii subsp	. hispidula	200	0.3	
Hakea lorea subsp. lorea		200	0.1	
Ptilotus calostachyus		80	0.1	
Senna artemisioides subs		100	0.2	
Senna glutinosa subsp. pruinosa		80	0.02	
Triodia sp. Shovelanna Hi	II (S. van Leeuwen 3835)	30	25	





Plot:	B081	Corner	nw	se
Date:	14/04/2011	Camera	floora's camera	
Date Revisit:	8/07/2011	Photo #	2524	
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3089	
Zone:	50	Soils	loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	742651	Soil comments:		
NW Northing:	7485234	Outcrop:		
SE Easting:	742701	Litter cover (%)		
SE Northing:	7485184	Logs	Twigs	Leaves
Topography:	flat		1	4
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1000	1
Time since fire (yrs):	plus 5	Mid	300	4
Disturbance:	low	Lower	120	60
Condition:	excellent	Bare ground (%):	35	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		130	0.1	
Acacia ancistrocarpa		150	0.7	
Acacia citrinoviridis		140	0.1	
Acacia inaequilatera		200	0.5	
Acacia pachyacra		250	1	
Acacia pruinocarpa		300	0.4	
Acacia sclerosperma subsp. scl	erosperma	300	3	
Cleome viscosa		30	0.01	
Corymbia hamersleyana		1000	1	
Grevillea wickhamii subsp. hispi	idula		0.2	
Indigofera monophylla			0.15	
Senna artemisioides subsp. olig	ophylla		0.15	
Triodia epactia		120	60	



Plot:	B082	Corner	D14/	20
Date:	14/04/2011	Camera	nw floora's came	se
Date Revisit:	5/07/2011			2527
		Photo #	2526	2521
Initials:	jl fw	Camera Revisit:		
Initials Revisit:	FW / PM	Photo # Revisit:		
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	743170	Soil comments:		
NW Northing:	7494600	Outcrop:	na	
SE Easting:	743220	Litter cover (%)		
SE Northing:	7494550	Logs	Twigs	Leaves
Topography:	flat		1	2
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus 5	Mid	300	3
Disturbance:	low	Lower	100	15
Condition:	excellent	Bare ground (%):	75	
Observations	cattle disturbance			
ODSEI VALIOIIS	cattle disturbance			
Species	cattle disturbance	Height (cm)	% AC	% DC
	cattle disturbance	Height (cm)	% AC	% DC
Species	cattle disturbance			% DC
Species Acacia dictyophleba	cattle disturbance	200	3	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp.	sclerosperma	200 300	3	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa	sclerosperma	200 300	3 2 0.3 0.02	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea	sclerosperma	200 300 250 30	3 2 0.3 0.02 0.01	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris	sclerosperma	200 300 250 30 40	3 2 0.3 0.02 0.01 0.2	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax	sclerosperma	200 300 250 30	3 2 0.3 0.02 0.01 0.2 2	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii	sclerosperma nera	200 300 250 30 40 130	3 2 0.3 0.02 0.01 0.2 2 0.01	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s	sclerosperma nera	200 300 250 30 40 130	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s Eragrostis eriopoda	sclerosperma nera	200 300 250 30 40 130 50	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1 1.5	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s Eragrostis eriopoda Euphorbia biconvexa	sclerosperma nera	200 300 250 30 40 130 50 50 20	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1 1.5 0.01	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s Eragrostis eriopoda Euphorbia biconvexa Gossypium australe	sclerosperma nera	200 300 250 30 40 130 50 50 20 80	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1 1.5 0.01 0.1	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s Eragrostis eriopoda Euphorbia biconvexa Gossypium australe Hakea lorea subsp. lorea	sclerosperma nera	200 300 250 30 40 130 50 50 20	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1 1.5 0.01 0.1 2	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s Eragrostis eriopoda Euphorbia biconvexa Gossypium australe Hakea lorea subsp. lorea Perotis rara	sclerosperma	200 300 250 30 40 130 50 50 20 80	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1 1.5 0.01 0.1 2	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s Eragrostis eriopoda Euphorbia biconvexa Gossypium australe Hakea lorea subsp. lorea Perotis rara Ptilotus exaltatus var. exalta	sclerosperma	200 300 250 30 40 130 50 50 20 80 250	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1 1.5 0.01 0.1 2 0.01 0.01	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s Eragrostis eriopoda Euphorbia biconvexa Gossypium australe Hakea lorea subsp. lorea Perotis rara Ptilotus exaltatus var. exaltat	sclerosperma	200 300 250 30 40 130 50 50 20 80 250	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1 1.5 0.01 0.1 2 0.01 0.01	% DC
Species Acacia dictyophleba Acacia pachyacra Acacia pruinocarpa Acacia sclerosperma subsp. Aristida holathera var. holath Boerhavia coccinea * Cenchrus ciliaris Chrysopogon fallax Convolvulus clementii Corchorus sidoides subsp. s Eragrostis eriopoda Euphorbia biconvexa Gossypium australe Hakea lorea subsp. lorea Perotis rara Ptilotus exaltatus var. exalta	sclerosperma	200 300 250 30 40 130 50 50 20 80 250	3 2 0.3 0.02 0.01 0.2 2 0.01 0.1 1.5 0.01 0.1 2 0.01 0.01	% DC





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Plot:	B083	Corner	nw	se
Date:	14/04/2011	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2528	
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3144	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	731658	Soil comments:		
NW Northing:	7500820	Outcrop:	na	
SE Easting:	731708	Litter cover (%)		
SE Northing:	7500770	Logs	Twigs	Leaves
Topography:	flat		0.5	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus 5	Mid	300	3
Disturbance:	medium	Lower	50	6
Condition:	very good	Bare ground (%):	90	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		250	0.2	
Acacia citrinoviridis				0.25
Acacia inaequilatera		300	0.2	
Acacia pruinocarpa		200	0.1	
Acacia sclerosperma sub	· · · · · · · · · · · · · · · · · · ·	200	1	
Acacia sclerosperma sub	sp. sclerosperma	250	0.5	
Acacia synchronicia		150	3	
* Cenchrus ciliaris		50	7	
Chrysopogon fallax				0.06
Corchorus sidoides subsp				0.01
Hakea lorea subsp. lorea		120	0.05	
Sclerolaena cuneata		400		
Senna artemisioides subs	sp. oligophylla	50	0.05	
Sporobolus australasicus				0.1



Plot:	B084	Corner	nw	se
Date:	15/04/2011	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2529	2530
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3140	
Zone:	50	Soils	loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	730333	Soil comments:		
NW Northing:	7500693	Outcrop:	na	
SE Easting:	730383	Litter cover (%)		
SE Northing:	7500643	Logs	Twigs	Leaves
Topography:	flat		0.5	3
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	800	2
Time since fire (yrs):	plus 5	Mid	200	3
Disturbance:	low	Lower	100	50
Condition:	very good	Bare ground (%):	60	
Observations	cattle			
Species	•	Height (cm)	% AC	% DC
Acacia ancistrocarpa		200	0.5	
Acacia citrinoviridis		110	0.05	
Acacia dictyophleba		200	2	
Acacia pruinocarpa		800	2	
Acacia spondylophylla		50	0.05	
Acacia synchronicia			0.1	
Acacia tumida var. pilba	rensis	130	0.1	
* Cenchrus ciliaris		50	15	
Chrysopogon fallax		100	0.5	
Eragrostis tenellula		30	0.01	
Euphorbia biconvexa		30	0.01	
Gossypium australe			0.01	
Grevillea wickhamii subs	o. hispidula	250	0.1	
Hakea lorea subsp. lorea			0.1	
Ipomoea muelleri			0.02	
Polycarpaea longiflora		30	0.02	
Pterocaulon sphaerantho	ides		0.01	
Trianthema pilosa			0.01	
Triodia basedowii		100	15	





Plot:	B085	Corner	nw	se
Date:	16/04/2011	Camera	floora's camera	
Date Revisit:	9/07/2011	Photo #	2531	2532
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3122	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	736380	Soil comments:		
NW Northing:	7494682	Outcrop:	na	
SE Easting:	736430	Litter cover (%)		
SE Northing:	7494632	Logs	Twigs	Leaves
Topography:	flowline	1		1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	1 tto 5	Upper	1400	1
Time since fire (yrs):	plus 5	Mid	700	6
Disturbance:	medium	Lower	40	35
Disturbance.	mediam	LOWEI	40	- 55
Condition:	yory good	Baro ground (9/):	50	
	very good	Bare ground (%):	50	
Observations	cattle disturbance	Height (em)	% AC	% DC
Species		Height (cm)		/ ₀ DC
Acacia citrinoviridis		700	8	
Acacia pruinocarpa Acacia pyrifolia var. pyrifo	olio	500 120	1	
Aristida holathera	Ulla	120	0.1	
Aristida holathera var. ho	lathera		0.2	
Atalaya hemiglauca	matricia	250	0.5	
Boerhavia coccinea		230	0.01	
* Cenchrus ciliaris		40	5	
Corchorus sidoides subs	p. sidoides	50	0.02	
Corymbia hamersleyana	<u> </u>	300	0.5	
Eriachne pulchella subsp	. dominii		0.1	
Eucalyptus victrix			2	
Euphorbia australis			0.01	
Polycarpaea longiflora			0.03	
Ptilotus obovatus		100	0.04	
Ptilotus obovatus var. ob	ovatus		0.04	
Salsola australis			0.05	
Solanum lasiophyllum		60	0.05	
Trianthema pilosa			0.3	
Tribulus ?occidentalis		2	0.01	
Triodia epactia			0.5	





Plot:	B086	Corner	nw	se
Date:	16/04/2011	Camera	floora's camera	
Date Revisit:	9/07/2011	Photo #	2533	2534
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3122	
Zone:	50	Soils	sandy loam with so	me clay loam
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	734969	Soil comments:		
NW Northing:	7495336	Outcrop:	na	
SE Easting:	735019	Litter cover (%)		
SE Northing:	7495286	Logs	Twigs	Leaves
Topography:	flat	0.5	1	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1000	5
Time since fire (yrs):	plus 5	Mid		
Disturbance:	medium	Lower	50	15
Condition:	very good	Bare ground (%):	75	
Observations		cattle dist	turbance	
Species	1	Height (cm)	% AC	% DC
Acacia citrinoviridis			0.7	
Acacia pruinocarpa		1000	5	
* Cenchrus ciliaris Hakea lorea subsp. lorea		50	3 0.5	





Plot:	B087	Corner	nw	se
Date:	14/04/2011	Camera	floora's camera	55
Date Revisit:	10/07/2011	Photo #	2535	2536
Initials:	il fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3132	
Zone:	50	Soils	loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	732574	Soil comments:		
NW Northing:	7497871	Outcrop:	na	
SE Easting:	732624	Litter cover (%)		
SE Northing:	7497821	Logs	Twigs	Leaves
Topography:	flat	0.	_	3
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	2
Time since fire (yrs):	plus5	Mid	300	2
Disturbance:	low	Lower	80	40
Condition:	excellent	Bare ground (%):	65	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		130	0.1	
Acacia dictyophleba		250	1	
Acacia inaequilatera		250	1	
Acacia synchronicia			0.2	
Aristida holathera var. ho	olathera	30	0.02	
Boerhavia coccinea			0.01	
* Cenchrus ciliaris		60	5	
Cleome viscosa		30	0.01	
Corchorus sidoides subs	p. siaoiaes	700	0.01	
Corymbia hamersleyana		700	1	
Cucumis maderaspatanu Eragrostis eriopoda	IS	30	0.1	
Eriachne mucronata		30	0.02	
Gomphrena affinis subsp	nilbarensis	15	0.01	
Gossypium robinsonii	, phodronoic	10	0.1	
Ptilotus exaltatus var. ex	altatus	40	0.01	
Ptilotus obovatus var. ob		30	0.05	
Rhagodia eremaea		110	0.2	
Senna notabilis			0.1	
Solanum lasiophyllum		40	0.04	
Trianthema pilosa			0.02	
Triodia basedowii		100	25	
Wahlenbergia tumidifruct	ta —————		0.04	





Plot:	B088	Corner	nw	se
Date:	16/04/2011	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2537	2538
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW/PM	Photo # Revisit:	3131	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	733250	Soil comments:		
NW Northing:	7497941	Outcrop:	na	
SE Easting:	733300	Litter cover (%)		
SE Northing:	7497891	Logs	Twigs	Leaves
Topography:	flat	0.1	1	2
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1000	2
Time since fire (yrs):	plus 5	Mid	250	4
Disturbance:	low	Lower	50	25
Condition:	excellent	Bare ground (%):	70	
Observations				
Species	1	Height (cm)	% AC	% DC
Acacia aneura		200	0.2	
Acacia citrinoviridis		800	2	
Acacia dictyophleba		250	3	
Acacia pruinocarpa		500	2	
Acacia synchronicia		250	0.2	
Atalaya hemiglauca		150	0.04	
Boerhavia coccinea			0.01	
* Cenchrus ciliaris		50	20	
Corymbia hamersleyana		1200	1	
Grevillea wickhamii subsp. h	ispidula	90	0.01	
Hakea lorea subsp. lorea		250	0.06	
Ipomoea muelleri			0.01	
Poaceae sp.		30	0.01	
Polycarpaea longiflora			0.02	
Senna artemisioides subsp.	oligophylla		0.04	
Solanum lasiophyllum		50	0.02	





Plot:	B089	Corner		
Date:	16/04/2011	Camera		
Date Revisit:	10/07/2011	Photo #	2539	2540
Initials:	jl fw	Camera Revisit:	Floora's camera	a
Initials Revisit:	FW / PM	Photo # Revisit:	3139	
Zone:	50	Soils	dry sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	731511	Soil comments:		
NW Northing:	7499023	Outcrop:	na	
SE Easting:	731561	Litter cover (%)		
SE Northing:	7498973	Logs	Twigs	Leaves
Topography:	flat		0.5	3
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus 5	Mid	200	3
Disturbance:	low to medium	Lower	80	30
Distai balice.	low to mediam	_0	00	00
Distarbance.	low to mediam	201101	00	00
Condition:	very good	Bare ground (%):	75	00
				30
Condition:				% DC
Condition: Observations		Bare ground (%):	75	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba		Bare ground (%): Height (cm)	75 % AC 1	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba Acacia inaequilatera		Bare ground (%): Height (cm)	75 % AC	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba		Bare ground (%): Height (cm)	75 % AC 1 2 0.2	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba Acacia inaequilatera		Bare ground (%): Height (cm)	75 % AC 1 2 0.2	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba Acacia inaequilatera Boerhavia coccinea * Cenchrus ciliaris Cucumis maderaspatanus		Bare ground (%): Height (cm) 200 250 60	75 % AC 1 2 0.2 18 0.01	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba Acacia inaequilatera Boerhavia coccinea * Cenchrus ciliaris Cucumis maderaspatanus Eragrostis eriopoda	very good	Bare ground (%): Height (cm) 200 250 60	75 % AC 1 2 0.2 18 0.01 1	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba Acacia inaequilatera Boerhavia coccinea * Cenchrus ciliaris Cucumis maderaspatanus Eragrostis eriopoda Senna artemisioides subsp	very good	Bare ground (%): Height (cm) 200 250 60	75 % AC 1 2 0.2 18 0.01 1 0.1	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba Acacia inaequilatera Boerhavia coccinea * Cenchrus ciliaris Cucumis maderaspatanus Eragrostis eriopoda Senna artemisioides subsp	very good	Bare ground (%): Height (cm) 200 250 60	75 % AC 1 2 0.2 18 0.01 1 0.1 0.01	
Condition: Observations Species Acacia ancistrocarpa Acacia dictyophleba Acacia inaequilatera Boerhavia coccinea * Cenchrus ciliaris Cucumis maderaspatanus Eragrostis eriopoda Senna artemisioides subsp	very good	Bare ground (%): Height (cm) 200 250 60	75 % AC 1 2 0.2 18 0.01 1 0.1	





Plot:	B090	Corner	nw	se
Date:		Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2541	2542
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3138	
Zone:	50	Soils	clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	731661	Soil comments:		
NW Northing:	7499544	Outcrop:	na	
SE Easting:	731711	Litter cover (%)		
SE Northing:	7499494	Logs	Twigs	Leaves
Topography:	flat		0.2	1
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1400	2
Time since fire (yrs):	plus 5	Mid	250	3
Disturbance:	medium	Lower	50	14
Condition:	very goood	Bare ground (%):	80	
Condition: Observations		Bare ground (%): y open areas with sparse		
				% DC
Observations		y open areas with sparse	e shrubs; mosiac	% DC
Observations Species Acacia citrinoviridis Acacia dictyophleba		y open areas with sparse Height (cm)	e shrubs; mosiac	% DC
Observations Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera		y open areas with sparse Height (cm) 250 200 200	% AC 0.8 0.1	% DC
Observations Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia		y open areas with sparse Height (cm) 250 200	% AC 0.8 0.1 0.5	% DC
Observations Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia Boerhavia coccinea		y open areas with sparse Height (cm) 250 200 200 230	% AC 0.8 0.1 0.5 2 0.01	% DC
Observations Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia Boerhavia coccinea * Cenchrus ciliaris		y open areas with sparse Height (cm) 250 200 200	% AC 0.8 0.1 0.5 2 0.01	% DC
Observations Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia Boerhavia coccinea * Cenchrus ciliaris * Cenchrus setiger		y open areas with sparse Height (cm) 250 200 200 230	% AC 0.8 0.1 0.5 2 0.01 14	% DC
Observations Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia Boerhavia coccinea * Cenchrus ciliaris * Cenchrus setiger Cleome viscosa		y open areas with sparse Height (cm) 250 200 200 230 50	9 shrubs; mosiac % AC 0.8 0.1 0.5 2 0.01 14 2 0.01	% DC
Observations Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia Boerhavia coccinea * Cenchrus ciliaris * Cenchrus setiger Cleome viscosa Corymbia hamersleyana		y open areas with sparse Height (cm) 250 200 200 230 50 30 1400	e shrubs; mosiac % AC 0.8 0.1 0.5 2 0.01 14 2 0.01 3	% DC
Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia Boerhavia coccinea * Cenchrus ciliaris * Cenchrus setiger Cleome viscosa Corymbia hamersleyana Hakea lorea subsp. lorea		y open areas with sparse Height (cm) 250 200 200 230 50 30 1400 160	e shrubs; mosiac % AC 0.8 0.1 0.5 2 0.01 14 2 0.01 3 0.1	% DC
Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia Boerhavia coccinea * Cenchrus ciliaris * Cenchrus setiger Cleome viscosa Corymbia hamersleyana Hakea lorea subsp. lorea Salsola australis		y open areas with sparse Height (cm) 250 200 200 230 50 30 1400 160 30	e shrubs; mosiac % AC 0.8 0.1 0.5 2 0.01 14 2 0.01 3 0.1 0.01	% DC
Species Acacia citrinoviridis Acacia dictyophleba Acacia inaequilatera Acacia synchronicia Boerhavia coccinea * Cenchrus ciliaris * Cenchrus setiger Cleome viscosa Corymbia hamersleyana Hakea lorea subsp. lorea		y open areas with sparse Height (cm) 250 200 200 230 50 30 1400 160	e shrubs; mosiac % AC 0.8 0.1 0.5 2 0.01 14 2 0.01 3 0.1	% DC





Plot:	B091	Corner	nw	se
Date:	16/04/2011	Camera	floora's camera	
Date Revisit:	10/07/2011	Photo #	2543	2544
Initials:	jl fw	Camera Revisit:	Floora's camera	l
Initials Revisit:	FW / PM	Photo # Revisit:	3143	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	727274	Soil comments:		
NW Northing:	7502833	Outcrop:	na	
SE Easting:	727323	Litter cover (%)		
SE Northing:	7502783	Logs	Twigs	Leaves
Topography:	flat		0.1	5
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	, ,	
Time since fire (yrs):	plus 5	Mid	400	0.5
Disturbance:	low to medium	Lower	50	30
Condition: Observations	very good	Bare ground (%):	60	
	callie	Haimbt (ama)	% AC	% DC
Species		Height (cm)		/ ₀ DC
Acacia inaequilatera		130 200	0.11	
Acacia pachyacra Acacia pruinocarpa		40	0.2	
Acacia prumocarpa Acacia sericophylla		250	0.1	
Aristida holathera var. h	olathera	40	0.5	
Aristida inaequiglumis		120	0.4	
Boerhavia coccinea			0.02	
* Cenchrus ciliaris		50	27	
Corchorus sidoides subs	sp. sidoides	50	0.05	
Corymbia hamersleyana)	400	0.2	
Eragrostis eriopoda		50	0.5	
Eremophila longifolia		60	0.05	
Gossypium australe			0.05	
Senna artemisioides sub	osp. oligophylla	120	0.2	
Senna notabilis		30	0.02	
Solanum lasiophyllum		60	0.1	
Sporobolus australasicu	S		0.02	
Trianthema pilosa			0.01	





Plot:	B092	Corner	nw	se
Date:	16/05/2011	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2545	2546
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3156	
Zone:	50	Soils	sandy loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	735319	Soil comments:		
NW Northing:	7498573	Outcrop:	na	
SE Easting:	735369	Litter cover (%)		
SE Northing:	7498523	Logs	Twigs	Leaves
Topography:	flat, adjacent to creekling	0.2	1	5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	10
Time since fire (yrs):	plus 5	Mid		
Disturbance:	medium	Lower	50	10
Condition:	very good	Bare ground (%):	85	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		50	0.05	
Acacia citrinoviridis		200	0.1	
Acacia inaequilatera		250	0.5	
Acacia pruinocarpa		700	7	
Acacia synchronicia		200	1	
* Aerva javanica			0.2	
* Cenchrus ciliaris		50	8	
Corymbia hamersleyana		700	2	
Hakea lorea subsp. lorea	1	300	0.2	





Plot:	B093	Corner	nw	se
Date:	16/04/2011	Camera	floora's camera	
Date Revisit:	11/07/2011	Photo #	2547	2548
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3147	
Zone:	50	Soils	clay pans with som	e loose loam
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	724451	Soil comments:	ica biowii	
NW Northing:	7507433	Outcrop:	na	
SE Easting:	724501	Litter cover (%)	iia	
	7507383	` '	Turing	
SE Northing:		Logs	Twigs	Leaves
Topography:	flat	0.2	2	2
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	1
Time since fire (yrs):	plus 5	Mid	200	15
Disturbance:	medium	Lower	50	20
Condition:	very good	Bare ground (%):	80	
Observations	cattle			
Species	•	Height (cm)	% AC	% DC
Acacia aneura		400	1	
Acacia synchronicia		250	10	
Acacia tetragonophylla		200	0.2	
Atriplex amnicola		50	1.5	
Boerhavia coccinea			0.04	
* Cenchrus ciliaris		50	8	
Centipeda minima		20	0.3	
Chrysopogon fallax		120	0.03	
Cleome viscosa		40	0.05	
Dactyloctenium radulans		10	0.01	
Enteropogon ramosus		50	0.05	
Eragrostis leptocarpa	formontii	400	0.04	
Eremophila forrestii ?subsp.	iorrestii	130	0.1	
Eriachne mucronata			0.2	
Eucalyptus leucophloia		600	1 1	
Eucalyptus leucophloia Maireana pyramidata		80	3	
* Malvastrum americanum		50	0.01	
Melaleuca glomerata		200	1	
Pterocaulon sphaeranthoides	2	200	0.1	
Ptilotus obovatus	•	50	0.05	
Ptilotus obovatus var. obova	tus	60	0.1	
Rhagodia eremaea		60	1	
Salsola australis			0.03	
Scaevola spinescens		60	0.1	
Senna artemisioides subsp.	helmsii		0.05	
Senna glutinosa subsp. gluti			0.2	
Solanum lasiophyllum		60	0.06	





Plot:	B094	Corner	nw	se
Date:	17/04/2011	Camera	floora's came	
Date Revisit:	N/A	Photo #	2549 2550	
Initials:	jl fw	Camera Revisit:	N/A	
Initials Revisit: N/A		Photo # Revisit:	N/A	
Zone:	50	Soils	clay loam	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	743086	Soil comments:		
NW Northing:	7508360	Outcrop:		
SE Easting:	743136	Litter cover (%)		
SE Northing:	7508310	Logs	Twigs	Leaves
Topography:	flat with erosio		3	5
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1000	15
Time since fire (yrs):	plus 5	Mid	400	5
Disturbance:	medium	Lower	50	2
			1 33	_
Condition:	excellent	Bare ground (%):	95	
Observations	CACCHOIT	Daie ground (70).	33	
Species		Height (cm)	% AC	% DC
Acacia aptaneura		1000	12	
Acacia synchronicia		200	2	
Acacia tetragonophylla		400	3	
Aristida inaequiglumis		110	0.1	
Boerhavia coccinea			0.3	
* Cenchrus ciliaris		60	0.05	
Cleome viscosa		50	0.2	
Convolvulus clementii			0.01	
Eragrostis tenellula		20	0.1	
Eremophila longifolia		200	0.2	
Eriachne flaccida		50	0.2	
Eriachne flaccida		30	0.03	
Euphorbia ?australis			0.15	
Ipomoea muelleri			0.3	
	Portulaca oleracea		0.01	ļ
	Ptilotus gomphrenoides Senna artemisioides subsp. helmsii Sida fibulifera		0.01	
			0.02	
			0.04	
Solanum lasiophyllum		50	0.1	
Streptoglossa ?decurrens		8	0.01	
* Vachellia farnesiana		300	3	<u> </u>





Plot:	B095	Corner	n	S
Date:	17/04/2011	Camera	floora's camera	
Date Revisit:	N/A	Photo #	2551	2552
Initials:	jl fw	Camera Revisit:	N/A	
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	clay pan loams	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	743950	Soil comments:		
NW Northing:	7508751	Outcrop:	na	
SE Easting:	743920	Litter cover (%)		
SE Northing:	7508705	Logs	Twigs	Leaves
Topography:	flat		2	1
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	800	30
Time since fire (yrs):	plus 5	Mid		
Disturbance:	low to medium	Lower	100	10
Condition: Observations	excellent cattle; pig	Bare ground (%):	90 ction; 10-15m v	vide
Observations		s. 50m transect SSW direct		vide DC
Observations Species			ction; 10-15m v	
Observations Species Acacia aptaneura		s. 50m transect SSW direct Height (cm)	ction; 10-15m v	
Observations Species		s. 50m transect SSW direct Height (cm)	% AC	
Observations Species Acacia aptaneura Acacia synchronicia		Height (cm) 1000 250	% AC 60 2	
Observations Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella		Section Sect	ction; 10-15m v % AC 60 2 3	
Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea		Height (cm) 1000 250 300 10	% AC 60 2 3 5 0.01	
Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea * Cenchrus ciliaris	cattle; pig	Height (cm) 1000 250 300 300 10	% AC 60 2 3 5 0.01 1	
Observations Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea * Cenchrus ciliaris Cheilanthes sieberi subsp. s.	cattle; pig	Height (cm) 1000 250 300 10 60	% AC 60 2 3 5 0.01 1 2 0.01	
Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea * Cenchrus ciliaris Cheilanthes sieberi subsp. si	cattle; pig	Height (cm) 1000 250 300 300 10 60 10 80	% AC 60 2 3 5 0.01 1 2 0.01 0.1	
Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea * Cenchrus ciliaris Cheilanthes sieberi subsp. s. Enteropogon ramosus Eragrostis tenellula	cattle; pig	Height (cm) 1000 250 300 300 10 60 10 80	% AC 60 2 3 5 0.01 1 2 0.01 0.1	
Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea * Cenchrus ciliaris Cheilanthes sieberi subsp. si Enteropogon ramosus Eragrostis tenellula Eremophila ?latrobei	cattle; pig	Height (cm) 1000 250 300 300 10 60 10 80 15	% AC 60 2 3 5 0.01 1 2 0.01 0.1 0.02	
Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea * Cenchrus ciliaris Cheilanthes sieberi subsp. si Enteropogon ramosus Eragrostis tenellula Eremophila ?latrobei Nicotiana occidentalis subsp	cattle; pig	Height (cm) 1000 250 300 300 10 60 10 80 15 30 30	% AC 60 2 3 5 0.01 1 2 0.01 0.1 0.02 0.01	
Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea * Cenchrus ciliaris Cheilanthes sieberi subsp. si Enteropogon ramosus Eragrostis tenellula Eremophila ?latrobei Nicotiana occidentalis subsp	cattle; pig	Height (cm) 1000 250 300 300 10 60 10 80 15 30 30 30 400	% AC 60 2 3 5 0.01 1 2 0.01 0.1 0.02 0.01 5	
Species Acacia aptaneura Acacia synchronicia Acacia tetragonophylla Acacia xiphophylla Blumea tenella Boerhavia coccinea * Cenchrus ciliaris Cheilanthes sieberi subsp. si Enteropogon ramosus Eragrostis tenellula Eremophila ?latrobei Nicotiana occidentalis subsp	cattle; pig	Height (cm) 1000 250 300 300 10 60 10 80 15 30 30	% AC 60 2 3 5 0.01 1 2 0.01 0.1 0.02 0.01	





Plot:	B096	Corner	nw	se	
Date:	17/04/2011	Camera	floora's camera	36	
Date Revisit:	N/A	Photo #	2553	2554	
Initials:	il fw	Camera Revisit:			
Initials Revisit:	N/A		N/A		
		Photo # Revisit: Soils	N/A		
	Zone : 50		clay pan with loams		
Datum:	GDA94	Soil colour:	red brown		
NW Easting:	744048	Soil comments:			
NW Northing:	7508384	Outcrop:	na		
SE Easting:	744098	Litter cover (%)			
SE Northing:	7508334	Logs	Twigs	Leaves	
Topography:	flat	0.5		2	
Aspect:	0	STRATA	Ht (cm)	% Cover	
Slope:	0	Upper	600	15	
Time since fire (yrs):	plus 5	Mid			
Disturbance:	low to medium	Lower	60	25	
Diotar Sarioo.	low to modium	201101	00	20	
Condition.	avaallant	Dane arrayind (0/).	00		
Condition:	excellent	Bare ground (%):	80		
Observations		cattle; erosion; small drainage channel			
Species	•	Height (cm)	% AC	% DC	
Acacia aptaneura		800	6		
Acacia synchronicia		250	1		
Acacia tetragonophylla Aristida holathera var. holathera Aristida inaequiglumis		500	10		
		30	0.15		
		100	0.5		
Atalaya hemiglauca		400	0.4		
Blumea tenella		10	0.1		
Blumea tenella		30	0.02	50 to 100 plants	
Boerhavia coccinea			0.5		
* Cenchrus ciliaris		50	8		
Cleome viscosa		40	0.1		
Convolvulus clementii			0.05		
Cucumis maderaspatanu	S		0.1		
Duperreya commixta		1400	0.04		
Enchylaena tomentosa		100	0.6		
Eragrostis tenellula		20	0.2		
Eremophila lanceolata		30	0.01		
Eriachne flaccida	· ·!llaa!aak »	50	8	1111 05	
Evolvulus alsinoides var.	viiiosicaiyx	20	0.01	11 to 25	
Gossypium australe		20	0.02		
Ipomoea muelleri		100	0.1		
Marsilea hirsuta		20	0.01		
Mimulus gracilis		10	0.04		
Ptilotus obovatus		100 70	0.2		
Rhagodia eremaea Scaevola spinescens		150	0.4		
Senna notabilis		30	0.4		
				C to 10 plants	
Solanum lasiophyllum		50	0.02	6 to 10 plants	





P	lot:	B097	Corner	nw	se
		17/04/2011	Camera	flooras came	
	ate Revisit:	N/A	Photo #	2558 2559	
\vdash	nitials:	il fw	Camera Revisit:	N/A	
Ir	nitials Revisit:	N/A	Photo # Revisit:	N/A	
z	Zone : 50		Soils	clay pan	
\vdash	atum:	GDA94	Soil colour:	red brown	
_	W Easting:	744493	Soil comments:	iod Siowii	
_	W Northing:	7508926	Outcrop:	na	
_	E Easting:	744543	Litter cover (%)		
_	E Northing:	7508876	Logs	Twigs	Leaves
_	opography:	flat		1	1
\vdash	spect:	na	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	111 (0111)	70 00101
	ime since fire (yrs):	plus 5	Mid	350	7
\vdash	isturbance:	low	Lower	70	4
F		1011		+	
ما	ondition:	excellent	Bare ground (%):	95	
\vdash	bservations	cattle	Dare ground (70).	33	
۲	Species	cattic	Height (cm)	% AC	% DC
-	Acacia synchronicia		350	6	
	Acacia tetragonophylla		160	0.2	
	Acacia xiphophylla		300	2	
	Boerhavia coccinea			0.02	
*	Cenchrus ciliaris		60	2	
	Enchylaena tomentosa		40	0.1	
	Eragrostis tenellula		10	0.02	
	Eremophila forrestii ?subsp	o. forrestii	120	0.1	
	Eremophila lanceolata		20	0.01	
	Goodenia prostrata			0.01	
	Heliotropium heteranthum			0.01	
	Maireana planifolia		30	0.01	
	Maireana pyramidata		60	0.05	
*	Portulaca oleracea			0.03	
	Ptilotus obovatus		60	1.5	
	Ptilotus obovatus var. obov	/atus	60	0.5	
-	Rhagodia eremaea		100	1	
L	Salsola australis		30	0.02	
<u> </u>	Scaevola spinescens		110	0.2	-
L	Sclerolaena cuneata		20 10	0.2	
-	Sclerolaena densiflora Solanum lasiophyllum		40	0.01	
\vdash	Trianthema triquetra		40	0.2	
L	тпаншетна шучена			JU. 1	





Plot:	B098	Corner	nw	se
Date:	17/04/2011	Camera	floora's camera	
Date Revisit:	N/A	Photo #	2560 2561	
Initials:	jl fw	Camera Revisit:	N/A	
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	many rocks	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	744242	Soil comments:		
NW Northing:	7507596	Outcrop:	na	
SE Easting:	744292	Litter cover (%)		
SE Northing:	7507546	Logs	Twigs	Leaves
Topography:	flat		0.3	5
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper		
Time since fire (yrs):	plus 5	Mid	300 8	
Disturbance:	low	Lower	30 1	
Condition:	excellent	Bare ground (%):	98	
Observations	catt	attle. numerous dead small shrubs		
Species	Species		% AC	% DC
Acacia synchronicia		200 300	0.1	
	Acacia xiphophylla		8	
Enchylaena tomentosa		25	1	
Eragrostis tenellula		10	0.01	
Heliotropium heteranthum			0.02	
Rhagodia eremaea		80	0.02	
Sclerolaena cuneata		20	0.02	
Trianthema triquetra			0.02	





Plot:	B099	Corner	nw	se
Date:	17/04/2011	Camera	floora's came	ra
Date Revisit:	N/A	Photo #	2562	2563
Initials:	jl fw	Camera Revisit:	N/A	
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	clay pan depression	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	743397	Soil comments:		
NW Northing:	7506785	Outcrop:		
SE Easting:	743447	Litter cover (%)		
SE Northing:	7506735	Logs	Twigs	Leaves
Topography:	flat with eroded holes		2	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1000	2
Time since fire (yrs):	plus 5	Mid	300	5
Disturbance:	medium	Lower	30	5
Condition:	very good	Bare ground (%):	92	
Observations	cattle	<u> </u>		
Species	James	Height (cm)	% AC	% DC
Acacia ?synchronicia		50	0.03	
Acacia aptaneura		1000	2	
Acacia synchronicia		60	0.5	
Acacia tetragonophylla		350	6	
Aristida inaequiglumis		100	4	
Boerhavia coccinea			2.5	
* Cenchrus ciliaris		40	1	
Chrysopogon fallax		100	2	
Cleome viscosa		30	0.06	
Convolvulus clementii			0.05	
Cucumis maderaspatanus			0.5	
Eremophila lanceolata		40	0.25	
Eucalyptus victrix		1000	1	
Euphorbia ?australis			0.2	
Goodenia prostrata			0.01	
Gossypium australe		20	0.05	
Hakea lorea subsp. lorea		130	0.1	
Ipomoea muelleri			0.6	
* Malvastrum americanum		20	0.2	
* Portulaca oleracea			0.02	
Ptilotus gomphrenoides		20	0.01	
Ptilotus gomphrenoides		4	0.01	
Rhagodia eremaea		100	0.05	
Senna artemisioides subsp	. helmsii	40	0.3	
Solanum lasiophyllum		30 30	0.02	
	Streptoglossa ?decurrens		0.1	
* Vachellia farnesiana		250	1	





Plot:	B100	Corner	nw	se
Date:	17/04/2011	Camera	floora's camera	
Date Revisit:	N/A	Photo #	2566	2567
Initials:	jl fw	Camera Revisit:	N/A	
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	dry clay	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	742824	Soil comments:		
NW Northing:	7507179	Outcrop:	na	
SE Easting:	742874	Litter cover (%)		
SE Northing:	7507129	Logs	Twigs	Leaves
Topography:	flat, floodplain	Logo	TWIGS	1
Aspect:	na na na na na na na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	Ht (CIII)	76 COVEI
Time since fire (yrs):	plus 5	Mid	200	1
Disturbance:	medium	Lower	10	30
Condition:	very good	Bare ground (%):	60	
Observations	very good	Bale glouliu (70).	00	
Species		Height (cm)	% AC	% DC
Acacia synchronicia		100	0.1	7020
Aristida holathera var. hola	othera	25	1	
Aristida latifolia	incra	80	0.1	
Boerhavia coccinea		00	8	
* Citrullus lanatus			1	
Cleome viscosa		30	2	
Cullen cinereum		8	0.05	
Dichanthium sericeum sub	sp. humilius	20	0.1	
Enteropogon ramosus	орт типпи	25	1	
Eragrostis setifolia		30	10	
Eragrostis tenellula		10	3	
Evolvulus alsinoides var. v	illosicalyx	20	0.01	
Heliotropium heteranthum	<u> </u>	3	0.01	
Ipomoea muelleri			0.1	
* Malvastrum americanum		30	2	
* Malvastrum americanum		20	0.2	
Marsilea hirsuta		100	0.02	
* Portulaca oleracea			0.2	
Ptilotus gomphrenoides		5	3	
Salsola australis		30	0.02	
Sida fibulifera			5	
Solanum lasiophyllum		50	0.15	
Streptoglossa ?decurrens		10	0.04	
Streptoglossa tenuiflora		10	0.02	
* Vachellia farnesiana		200	1.5	
* Vachellia farnesiana			0.02	





Plot:	B101	Corner	nw	se
Date:	18/04/2011	Camera	floora's came	
Date Revisit:	N/A	Photo #	2571	2572
Initials:	il fw bn	Camera Revisit:	N/A	
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	rocks	
Datum:	GDA94	Soil colour:		
= *********	744497	Soil colour:	red brown	
NW Easting:				
NW Northing:	7511706	Outcrop:	na	
SE Easting:	744547	Litter cover (%)		1
SE Northing:	7511656	Logs	Twigs	Leaves
Topography:	flat		2	2
Aspect:	na	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	600	15
Time since fire (yrs):	plus 5	Mid	100	3
Disturbance:	low	Lower	50	3
Condition:	excellent	Bare ground (%):	95	
Observations				
Species		Height (cm)	% AC	% DC
Acacia aptaneura		500	14	
Acacia synchronicia		200	1	
Acacia tetragonophylla		230	1.5	
Acacia xiphophylla		350	2	
Aristida holathera var. holathe	era	30	0.1	
Aristida inaequiglumis		100	0.02	
Blumea tenella		15	0.01	
Boerhavia coccinea			0.04	
* Cenchrus ciliaris		30	3	
Cleome viscosa		40	0.06	
Dactyloctenium radulans		15	0.04	
Duperreya commixta			0.06	
Enchylaena tomentosa		80	0.3	
Eragrostis tenellula		10	0.1	
Eremophila forrestii ?subsp. fo	orrestii	130	3	
Eriachne flaccida		30	0.01	
Goodenia prostrata			0.01	
Gossypium australe		110	0.05	
Iseilema eremaeum		30	0.02	
Maireana planifolia		30	0.1	
Psydrax latifolia		250	0.3	
Ptilotus obovatus var. obovatu	IS	70	0.2	
Rhagodia eremaea		200	0.5	
Salsola australis		30	0.02	
Sclerolaena cuneata Solanum lasiophyllum		20 50	0.1	
Streptoglossa ?decurrens		10	0.02	
Trianthema triquetra		10	0.04	
Thanana aiguda			10.0-	1





Plot:	B102	Corner	nw	se
Date:	18/04/2011	Camera	floora's camer	
Date Revisit:	N/A	Photo #	2573	2574
Initials:	il fw se	Camera Revisit:	N/A	
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	small rocks	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	743872	Soil comments:	TCG DIOWIT	
NW Northing:	7512166	Outcrop:	na	
SE Easting:	743922	Litter cover (%)	iiu	
SE Northing:	7512116	Logs	Twigs	Leaves
Topography:	flat with eroded holes	_		5
Aspect:	na 0	STRATA	Ht (cm) 1200	% Cover 10
Slope:	plus 5	Upper		
Time since fire (yrs):	<u>'</u>	Mid	100	6
Disturbance:	lo	Lower	50	6
Condition:	excellent	Bare ground (%):	85	
Observations				24.5.0
Species		Height (cm)	% AC	% DC
Acacia aptaneura		1200	15	
Acacia synchronicia		130	0.5	
Acacia tetragonophylla		250	3	
Aristida holathera var. holati	hera	40	0.1	
* Bidens bipinnata		25	0.03	
Blumea tenella		5	0.01	
Boerhavia coccinea		00	1.2	
* Cenchrus ciliaris		60 110	5	
Chrysopogon fallax Cleome viscosa		50	0.5	
Dichanthium sericeum subs	n humilius	30	0.1	
Duperreya commixta	or riarimae	00	0.4	
Eragrostis setifolia		30	0.05	
Eragrostis tenellula		10	0.1	
Eremophila longifolia		230	0.1	
Evolvulus alsinoides var. vill	losicalyx	25	0.02	
Gossypium australe		40	0.1	
Hybanthus aurantiacus		40	0.02	
Ipomoea muelleri			0.2	
Iseilema eremaeum		30	0.1	
Lotus cruentus		5	0.02	
* Malvastrum americanum		30	0.05	
Rhynchosia minima			0.04	
Scaevola spinescens	-	160	1	
Senna ?sp. Meekatharra (E.	Bailey 1-26)	200	0.2	





Р	lot:	B103	Corner	nw	se
D	ate:	18/04/2011	Camera	floora's came	ra
D	ate Revisit:	N/A	Photo #	2577	2578
Ir	itials:	jl fw bn	Camera Revisit:	N/A	
Ir	itials Revisit:	N/A	Photo # Revisit:	N/A	
Z	one:	50	Soils	clay pan loam	ı
D	atum:	GDA94	Soil colour:	red brown	
N	W Easting:	743880	Soil comments:		
N	W Northing:	7511599	Outcrop:	na	
S	E Easting:	743930	Litter cover (%)		
S	E Northing:	7511551	Logs	Twigs	Leaves
Т	opography:	flat with eroded holes	0.2	2	3
Α	spect:	na	STRATA	Ht (cm)	% Cover
S	lope:	0	Upper	900	15
T	ime since fire (yrs):	plus 5	Mid	50	15
D	isturbance:	low	Lower	5	5
С	ondition:	excellent	Bare ground (%):		
o	bservations	dr	ainage channel in m	niddle	
	Species		Height (cm)	% AC	% DC
	Acacia aptaneura		1000	20	70 2 0
	Acacia synchronicia		170	0.6	
	Acacia tetragonophylla		250	2	
	Austrobryonia pilbarensis			0.02	
*	Bidens bipinnata		30	0.2	
	Blumea tenella		6	1	
	Boerhavia coccinea			1	
*	Cenchrus ciliaris		50	15	
_	Chrysopogon fallax		100	1	
_	Cleome viscosa		50	0.5	
*	Convolvulus clementii		40	0.01	
\vdash	Echinochloa colona		10	0.1 0.5	
\vdash	Eragrostis tenellula Eriachne flaccida		50	1	
H	Euphorbia ?australis			0.02	
H	Evolvulus alsinoides var. 1	villosicalyx	200	0.01	
H	Gossypium australe	<u> </u>	60	0.3	
	Ipomoea muelleri			1.5	
	Lotus cruentus		5	0.02	
*	Malvastrum americanum		20	0.1	
	Mimulus gracilis		5	0.1	
	Psydrax latifolia		200	0.2	
	Rhynchosia minima			0.05	
L	Scaevola spinescens		80	0.02	
L	Streptoglossa ?decurrens		20	0.4	





Р	lot:	B104	Corner	nw	se
	ate:	18/04/2011	Camera	floora's camer	
	ate Revisit:	N/A	Photo #	2579	2582
\vdash	nitials:	il fw bn	Camera Revisit:	N/A	2002
	itials Revisit:	N/A	Photo # Revisit:	N/A	
\vdash	one:	50	Soils	clay pan depre	ession
-	atum:	GDA94		+	2331011
			Soil colour:	red brown	
_	W Nambian	742998	Soil comments:		
_	W Northing:	7511789	Outcrop:	na	
_	E Easting:	743048	Litter cover (%)		
_	E Northing:	7511739	Logs	Twigs	Leaves
T	opography:	flat with eroded holes	0.5	4	5
	spect:	0	STRATA	Ht (cm)	% Cover
S	lope:	0'	Upper	1400	4
Т	ime since fire (yrs):	plus 5	Mid	300	25
D	isturbance:	medium	Lower	60	30
С	ondition:	excellent	Bare ground (%):	60	
0	bservations	cattle	. ,		
F	Species		Height (cm)	% AC	% DC
	Acacia aptaneura		1400	6	
	Acacia synchronicia		200	0.03	
	Acacia tetragonophylla		400	12	
	Atalaya hemiglauca		300	2	
*	Bidens bipinnata		30	0.01	
	Blumea tenella		20	0.5	
	Boerhavia coccinea			2	
*	Cenchrus ciliaris		60	25	
	Centipeda minima		5	0.5	
	Cleome viscosa		50	0.1	
	Convolvulus clementii			0.2	
	Dactyloctenium radulans		30	0.02	
	Enchylaena tomentosa		130	0.3	
	Eragrostis tenellula		10	0.05	
	Eremophila lanceolata		40	0.04	
	Eremophila longifolia		300	4	
ļ.	Gossypium australe		40	0.02	
_	Malvastrum americanum		40	0.2	
	Mimulus gracilis		5	0.1	
-	Psydrax latifolia		400	1	
	Santalum lanceolatum		250 200	0.1	
			1 21 11 1	111.6	
	Scaevola spinescens Streptoglossa ?decurrens		20	0.0	





Р	Plot:	B105	Corner	nw	se
D	Pate:	18/04/2011	Camera	floora's came	era
D	ate Revisit:	N/A	Photo #	2583	2584
Ir	nitials:	jl fw bn	Camera Revisit:	N/A	•
lr	nitials Revisit:	N/A	Photo # Revisit:	N/A	
Z	one:	50	Soils	clay pan	
D	Patum:	GDA94	Soil colour:	red brown	
N	IW Easting:	744367	Soil comments:		
_	IW Northing:	7510208	Outcrop:	na	
_	E Easting:	744417	Litter cover (%)		
_	E Northing:	7510158	Logs	Twigs	Leaves
_	opography:	flat		1 4	5
⊢	spect:	0	STRATA	Ht (cm)	% Cover
	Slope:	0	Upper	1200	20
_	ime since fire (yrs):	plus 5	Mid	250	8
_	Disturbance:	low	Lower	50	6
F		1011			
_	Condition:	excellent	Bare ground (%):	70	
-	Observations	excellent	Bare ground (%).	70	
Н	Species		Height (cm)	% AC	% DC
	Acacia aptaneura		1200	30	70 00
	Acacia apianeura Acacia synchronicia		200	0.3	
	Acacia synchronicia Acacia tetragonophylla		250	5	
_	Aristida holathera var. ho	olathera	40	0.02	
	Aristida inaequiglumis	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100	0.6	
*	Bidens bipinnata		25	0.02	
	Blumea tenella		10	0.3	
	Boerhavia coccinea			2	
*	Cenchrus ciliaris		60	4	
	Cleome viscosa		40	0.05	
	Convolvulus clementii			0.02	
	Eragrostis tenellula		20	0.05	
	Eremophila latrobei subs	p. <i>filiformi</i> s	200	0.15	
	Eremophila longifolia		200	0.1	
	Eriachne flaccida		30	0.2	
	Euphorbia boophthona		20	0.01	
	Hakea lorea subsp. lorea	1	230	0.1	
	Ipomoea muelleri			2	
*	Malvastrum americanum		40	0.2	
L	Rhynchosia minima			0.01	
L	Rostellularia adscendens	var. clementii	5	0.01	
L	Scaevola spinescens		180	0.2	ļ
L	Solanum lasiophyllum	_	60	0.1	
L	Spermacoce brachystem	a	5	0.01	<u> </u>





Plot:	B106	Corner	nw	se
Date:	18/04/2011	Camera	floora's came	
Date Revisit:	N/A	Photo #	2585 2586	
Initials:	il fw bn	Camera Revisit:	N/A	
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	clay pan	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	743767	Soil comments:		
NW Northing:	7510178	Outcrop:	small bif rock	(S
SE Easting:	743817	Litter cover (%)		
SE Northing:	7510128	Logs	Twigs	Leaves
Topography:	flat		0.2	2
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	,	
Time since fire (yrs):	plus 5	Mid	300	6
Disturbance:	low	Lower	30	1
Condition:	excellent	Bare ground (%):	96	
Observations	cattle		-	•
Species	•	Height (cm)	% AC	% DC
Acacia synchronicia		300	1.5	
Acacia tetragonophylla		130	0.2	
Acacia xiphophylla		300	4	
Boerhavia coccinea			0.02	
* Cenchrus ciliaris		40	0.1	
Dactyloctenium radulans		20	0.03	
Enchylaena tomentosa		40	0.1	
Enteropogon ramosus		50	0.01	
Eragrostis tenellula		20	0.01	
Iseilema eremaeum		5	0.01	
Maireana pyramidata		100	0.1	
* Portulaca oleracea			0.01	
Salsola australis		30	0.03	
Sclerolaena cuneata		30	0.5	
Senna artemisioides subsp	. helmsii	160	0.2	
Solanum lasiophyllum		30	0.01	
Trianthema triquetra			0.2	





PI	ot:	B107	Corner	nw	se
Da	ate:	18/04/2011	Camera	floora's	
Da	ate Revisit:	N/A	Photo #	2588	2589
In	itials:	jl fw	Camera Revisit:	N/A	
In	itials Revisit:	N/A	Photo # Revisit:	N/A	
Z	one:	50	Soils	clay pan dep	ression
Da	atum:	GDA94	Soil colour:	red brown	
N	W Easting:	742892	Soil comments:		
	W Northing:	7510252	Outcrop:	na	
_	E Easting:	742942	Litter cover (%)		
	E Northing:	7510202	Logs	Twigs	Leaves
	ppography:	flat	- 3	0.5	2
\vdash	spect:	0	STRATA	Ht (cm)	% Cover
	ope:	0	Upper	1000	2
_	me since fire (yrs):	plus 5	Mid	300	4
	sturbance:	low	Lower	60	35
\vdash	ondition:	excellent	Bare ground (%):	70	
<u> </u>	bservations		Height (em)	% AC	% DC
Н	Species Acacia aneura		Height (cm)	% AC	/8 DC
Н	Acacia aneura Acacia aptaneura		1000	3	
H	Acacia citrinoviridis		500	2	
H	Acacia synchronicia		300	4	
H	Acacia tetragonophylla		300	2	
П	Boerhavia coccinea			0.2	
*	Cenchrus ciliaris		50	30	
	Cleome viscosa		50	0.2	
	Enchylaena tomentosa		60	0.5	
Ш	Eragrostis tenellula		15	0.1	
Ц	Eremophila forrestii ?subsp. for	restii	150	0.05	
	Maireana pyramidata		80	0.03	
*	Portulaca oleracea		70	0.03	
Н	Ptilotus obovatus var. obovatus		70	1 0.2	
Н	Rhagodia eremaea Rhynchosia minima		160 20	0.3	
H	Scaevola spinescens		150	0.01	
1 1	ουαυνοία ομιτισούστιο		130		
H	Trianthema triquetra			0.02	





Plot:	B108	Corner	nw	se
Date:	18/04/2011	Camera	floora's	
Date Revisit:	N/A	Photo #	2590	2591
Initials:	fw jl bn	Camera Revisit:	N/A	
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	clay pan depr	ession
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	743287	Soil comments:	na	
NW Northing:	7509413	Outcrop:	na	
SE Easting:	743337	Litter cover (%)		
SE Northing:	7509363	Logs	Twigs	Leaves
Topography:	flat with eroded holes	2		5
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	1600	15
Time since fire (yrs):	plus 5	Mid	200	20
Disturbance:	low	Lower	50	20
2.014.24.100.			- 00	
Condition:	excellent	Bare ground (%):	35	
		-		
Observations	d	rainage channel throug	ıh middle	
Species	•	Height (cm)	% AC	% DC
Acacia aptaneura		1600	20	
Acacia tetragonophylla		300	3	
Alternanthera nodiflora		20	0.01	
* Bidens bipinnata		30	0.04	
Blumea tenella		10	3	
Boerhavia coccinea			3	
* Cenchrus ciliaris		60	15	
Centipeda minima		8	0.5	
Chrysopogon fallax Cleome viscosa		100 50	0.1 0.02	
Duperreya commixta		50	0.02	
* Echinochloa colona		30	0.2	
Eragrostis tenellula		10	0.1	
Eremophila forrestii ?subsp	. forrestii	50	0.1	
Eremophila longifolia		200	0.1	
Eriachne flaccida		30	1	
Evolvulus alsinoides var. vi	llosicalyx	15	0.01	
Gossypium australe		40	0.02	
Ipomoea coptica			0.1	
Ipomoea muelleri			0.1	
* Malvastrum americanum		20	0.06	
Mimulus gracilis		5	0.02	
Psydrax latifolia		400	0.5	
Santalum lanceolatum		160	0.05	
* Vachellia farnesiana		300	8	





Plot:	B109	Corner	nw	se
Date:	19/04/2011	Camera	floora's camera	36
Date Revisit:	6/07/2011	Photo #	2592	2593
Initials:	il fw	Camera Revisit:	Floora's camera	2000
Initials Revisit:	FW / PM	Photo # Revisit:	3055	
		Soils	sandy loam	
Zone:	50		•	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	746276	Soil comments:		
NW Northing:	7493956	Outcrop:	na	
SE Easting:	746326	Litter cover (%)		
SE Northing:	7493906	Logs	Twigs	Leaves
Topography:	flat		0.5	0.5
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	500	2
Time since fire (yrs):	plus 5	Mid	200	3
Disturbance:	low	Lower	100	25
Condition:	excellent	Bare ground (%):	75	
Observations	CAGGIIGTIL	Dare ground (70).	70	
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		230	3	7020
Acacia aneura		130	0.1	
Acacia dictyophleba		130	0.02	
Acacia inaequilatera		300	1.5	
Acacia inaequilatera		000	2	
Acacia pruinocarpa		500	3	
Acacia synchronicia		110	0.1	
Acacia tetragonophylla		250	0.5	
Anthobolus leptomerioides		200	0.3	
Aristida holathera var. holat	hera	50	0.6	
* Cenchrus ciliaris		40	0.1	
Chrysopogon fallax		120	0.1	
Cleome viscosa		50	0.1	
Corchorus sidoides subsp.	sidoides	5	0.02	
Cucumis maderaspatanus			0.1	
Dodonaea petiolaris		100	0.04	
Duperreya commixta			0.04	
Eremophila forrestii ?subsp		120	0.05	
Gomphrena affinis subsp. p	ilbarensis	50	0.01	
Hakea lorea subsp. lorea		120	0.01	
Indigofera monophylla		20	0.02	
Maireana pyramidata		30	0.02	
Perotis rara		20	0.02	
Polycarpaea longiflora Portulaca oleracea			0.01	
Psydrax latifolia		200	0.03	
Sclerolaena cornishiana		20	0.02	
Sclerolaena cuneata		30	5.02	
Solanum lasiophyllum			0.02	
Sporobolus australasicus		10	0.02	
Sporobolus australasicus			0.1	
Triodia epactia		100	20	





Plot:	B110	Corner	nw	se
Date:	19/04/2011	Camera	floora's came	
Date Revisit:	6/07/2011	Photo #	2594	2595
Initials:	il fw	Camera Revisit:	2004	2000
Initials Revisit:	FW / PM		+	
		Photo # Revisit:	olov pop opd	loomo
Zone:	50	Soils	clay pan and	ioams
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	745204	Soil comments:		
NW Northing:	7494440	Outcrop:	na	
SE Easting:	745254	Litter cover (%)		
SE Northing:	7494390	Logs	Twigs	Leaves
Topography:	flat		3	6
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	500	15
Time since fire (yrs):	plus 5	Mid		
Disturbance:	low	Lower	110	20
Condition:	excellent	Bare ground (%):	75	
Observations	cattle	Bare ground (70).	10	
Species	cattle	Height (cm)	% AC	% DC
Acacia ancistrocarpa		160	0.2	70 20
Acacia antistrocarpa Acacia aptaneura		500	15	
Acacia aptaneura Acacia synchronicia		250	0.4	
Acacia synchronicia Acacia tetragonophylla		200	0.4	
Aristida holathera var. hola	athera	40	0.5	
Blumea tenella	itriora	25	0.01	
Boerhavia coccinea		20	0.02	
* Cenchrus ciliaris		40	1	
Cheilanthes sieberi subsp.	sieberi	20	0.04	
Chloris sp.				
Chrysopogon fallax		130	8	
Cleome viscosa		50	0.03	
Corchorus sidoides subsp.	sidoides	5	0.01	
Cucumis maderaspatanus			0.2	
Dactyloctenium radulans		25	0.1	
Duperreya commixta			0.1	
Eremophila lanceolata		40	2	
Eriachne mucronata				
Evolvulus alsinoides var. v	•	20	0.01	
Gomphrena affinis subsp.	pilbarensis	50	0.1	
P Goodenia nuda		30	0.02	
Gossypium australe		60	0.1	
Hakea lorea subsp. lorea		300	1.5	
Iseilema eremaeum		20	0.05	
Maireana planifolia Perotis rara		15	0.02	
* Portulaca oleracea		10	0.4	
Psydrax latifolia		150	0.02	
Pterocaulon sphaeranthoid	les	1.55	0.01	
Ptilotus gaudichaudii var. g		20	0.01	
Ptilotus macrocephalus		50	0.1	
Ptilotus obovatus		80	0.3	
Senna artemisioides subsp	o. helmsii	160	0.1	
Senna notabilis		20	0.02	

Sporobolus australasicus	15	0.05	
Sporobolus australasicus			
Streptoglossa ?decurrens	30	0.06	
Triodia epactia	100	10	





Plot:	B111	Corner	nw	se
Date:	19/04/2011	Camera	floora's camera	36
Date Revisit:	6/07/2011	Photo #	2596	2597
Initials:	il fw	Camera Revisit:	Floora's camera	2007
Initials Revisit:	FW / PM	Photo # Revisit:	3056	
Zone:	50	Soils	clay pan with loam	ne .
				15
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	746252	Soil comments:		
NW Northing:	7495094	Outcrop:	na	
SE Easting:	746301	Litter cover (%)		•
SE Northing:	7495044	Logs	Twigs	Leaves
Topography:	flat	0.2	4	4
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	600	15
Time since fire (yrs):	plus 5	Mid		
Disturbance:	low	Lower	100	18
Condition:	excellent	Bare ground (%):	80	
Observations				
Species		Height (cm)	% AC	% DC
Acacia aptaneura		700	15	
Acacia pruinocarpa		500	2	
Acacia tetragonophylla		300	1	
Boerhavia coccinea			0.02	
Cheilanthes sieberi subsp.	sieberi	20	0.02	
Chrysopogon fallax		130	3	
Corchorus sidoides subsp.	sidoides	5	0.01	
Cucumis maderaspatanus			0.2	
Dactyloctenium radulans		30	0.1	
Duperreya commixta		45	0.02	
Eragrostis tenellula Eremophila forrestii ?subsp	forrostii	15 80	0.05	
Eremophila lanceolata	. 101163111	30	0.04	
Eriachne mucronata		30	0.04	
Gomphrena affinis subsp. µ	oilbarensis	40	0.02	
Goodenia prostrata		5	0.02	
Gossypium australe		60	0.04	
Hakea lorea subsp. lorea		300	0.1	
Polycarpaea longiflora			0.01	
* Portulaca oleracea			0.05	
Psydrax latifolia		250	0.3	
Ptilotus obovatus var. obov	atus	80	0.1	
Sclerolaena cornishiana		30	0.02	
Solanum lasiophyllum		60	0.1	
Sporobolus australasicus	-		0.2	
Streptoglossa ?decurrens		20	0.01	
Triodia epactia		80	7	





Plot:	B112	Corner	nw	se
Date:	19/04/2011	Camera	floora's camera	
Date Revisit:	6/07/2011	Photo #	2598	2599
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3057	
Zone:	50	Soils	clay pan with sar	ndy over tge top
Datum:	GDA94	Soil colour:	red brown with black grains	
NW Easting:	745256	Soil comments:		
NW Northing:	7495360	Outcrop:	na	
SE Easting:	745305	Litter cover (%)		
SE Northing:	7495310	Logs	Twigs	Leaves
Topography:	flat		1	3
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	2
Time since fire (yrs):	plus 5	Mid		
Disturbance:	low	Lower	100	30
Condition:	excellent	Bare ground (%):	60	
Observations				24.50
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		200	1	
Acacia aptaneura		250	0.4	
Acacia inaequilatera		200	1	
Acacia inaequilatera		1000	1	
Acacia pruinocarpa		1000	3	
Acacia tetragonophylla		120 5	0.2	
Bulbostylis barbata * Cenchrus ciliaris		40	0.01 0.05	
Cleome viscosa		50	0.04	
Cucumis maderaspatan	116	30	0.1	
Cymbopogon obtectus	<u> </u>	80	0.02	
Eremophila forrestii ?su	bsp. forrestii	130	2	
Eremophila longifolia	<u> </u>	250	0.1	
Gomphrena cunninghan	nii		0.01	
Hakea lorea subsp. lore	ea	250	1	
Polycarpaea longiflora			0.01	
* Portulaca oleracea			0.02	
Psydrax latifolia		200	0.15	
Ptilotus obovatus var. o		80	0.05	
Sclerolaena cornishiana		30	0.01	
Senna glutinosa subsp.	pruinosa	160	0.2	
Solanum lasiophyllum		60	0.15	
Trichodesma zeylanicur	n var. zeylanicum		0.03	
Triodia epactia		100	36	





Plo	ot:	B113	Corner	nw	se
	ite:	19/04/2011	Camera	floora's camera	1 30
	ite Revisit:	6/07/2011	Photo #	2600	2601
	tials:	jl fw	Camera Revisit:	Floora's camera	
		FW / PM			
	tials Revisit:	· ·	Photo # Revisit:	3058	
Zo	ne:	50	Soils	clay pan with loa	ıms
Da	tum:	GDA94	Soil colour:	red brown	
N۷	V Easting:	745414	Soil comments:		
N۷	V Northing:	7496399	Outcrop:	na	
SE	E Easting:	745464	Litter cover (%)		
	Northing:	7496349	Logs	Twigs	Leaves
	pography:	flat		1	2
_	pect:	0	STRATA	<u> </u>	% Cover
	ope:	0		Ht (cm) 700	5
	-		Upper	700	5
1 II	me since fire (yrs):	plus 5	Mid		
Dis	sturbance:	low	Lower	100	15
Со	ondition:	excellent	Bare ground (%):	80	
Ob	servations		Cleome oxalidea ne	earby	
	Species		Height (cm)	% AC	% DC
	Acacia aptaneura		600	10	
	Acacia pruinocarpa		300	0.5	
	Acacia synchronicia		350	2	
	Acacia tetragonophylla		200	2.5	
	Aristida holathera var. holat	hera	40	0.05	
	Boerhavia coccinea			0.01	
*	Cenchrus ciliaris		80	0.3	
	Cheilanthes sieberi subsp. s	sieberi	25	0.01	
	Chrysopogon fallax		110	0.4	
	Cleome viscosa		50	0.02	
	Corchorus sidoides subsp.	sidoides	30	0.03	
	Cucumis maderaspatanus			0.02	
	Dactyloctenium radulans		20	0.02	
	Eremophila lanceolata			7	
	Eremophila lanceolata		50	7	
	Eremophila lanceolata		220	0.4	
	Evolvulus alsinoides var. vil	losicalyx	20	0.01	
P4	Goodenia nuda		30	0.03	
	Goodenia prostrata			0.02	
	Hakea lorea subsp. lorea			2	
	Indigofera georgei			0.1	
*	Portulaca oleracea			0.01	
	Salsola australis			0.02	
	Senna artemisioides subsp.	helmsii	100	0.2	
	Senna artemisioides subsp		110	0.1	İ
	Senna notabilis			0.02	
	Sida sp.			0.02	
	Solanum lasiophyllum		50	0.05	
	Sporobolus australasicus		15	0.02	
	Sporobolus australasicus			0.02	
	Trichodesma zeylanicum va	ar. zeylanicum		0.02	
	Triodia epactia		100	2	<u> </u>





Plot:	B114	Corner	2014	00
Date:	19/04/2011	Camera	nw floora's camera	se
Date Revisit:	6/07/2011	Photo #	2605	2606
Initials:	il fw		Floora's camera	2000
Initials:	FW / PM	Camera Revisit:		
		Photo # Revisit:	3050	
Zone:	50	Soils	clay pan with loa	ms
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	746401	Soil comments:		
NW Northing:	7496702	Outcrop:	na	
SE Easting:	746451	Litter cover (%)		
SE Northing:	7496652	Logs	Twigs	Leaves
Topography:	flat		0.5	2
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	, ,	
Time since fire (yrs):	plus 5	Mid	500	4
Disturbance:	low	Lower	140	5
Condition:	excellent	Bare ground (%):	97	
Observations	excellent	Bare ground (78).	91	
Species		Height (cm)	% AC	% DC
<u> </u>		- , ,		70 DO
Acacia aptaneura Acacia dictyophleba		40 200	0.05	
Acacia dictyoprileba Acacia pruinocarpa		500	3	
Acacia synchronicia		150	0.1	
Acacia tetragonophylla		300	1	
Boerhavia coccinea		300	0.04	
* Cenchrus ciliaris		50	0.02	
Chrysopogon fallax			0.05	
Cleome viscosa		50	0.05	
Corchorus sidoides subsp	o. sidoides	10	0.2	
Dactyloctenium radulans		30	0.02	
Eragrostis tenellula		15	0.02	
Eremophila forrestii ?subs	sp. forrestii	70	0.05	
Eremophila lanceolata			0.05	
Eremophila latrobei subsp	o. filiformis	30	0.03	
Euphorbia biconvexa		30	0.01	
Evolvulus alsinoides var.	villosicalyx	10	0.01	
Goodenia prostrata			0.07	
Polycarpaea longiflora		20	0.02	
* Portulaca oleracea			0.1	
Psydrax latifolia		220	0.1	
Ptilotus exaltatus var. exa		60	0.03	
Ptilotus obovatus var. obo	ovatus	60	0.3	
Salsola australis		30	0.05	
Sclerolaena cornishiana	en holmoii	20 70	0.01	
Senna artemisioides subs		120	0.2	
Senna glutinosa subsp. p		130	0.5	
Senna notabilis	i dil 1000	30	0.15	
Solanum lasiophyllum		50	0.2	
Sporobolus australasicus			0.02	
Triodia epactia		80	0.1	





Ь	lot:	B115	Corner	nw	se
	ate:	19/04/2011	Camera	floora's camera	36
	ate Revisit:	6/07/2011	Photo #	2607	2608
	nitials:	il fw	Camera Revisit:	Floora's camera	2000
	itials Revisit:	FW / PM	Photo # Revisit:	3049	
	one:	50	Soils	loam over clay pa	n
\vdash					
	atum:	GDA94	Soil colour:	red brown	
	W Easting:	745078	Soil comments:	some small rocks	
	W Northing:	7497175	Outcrop:	na	
_	E Easting:	745128	Litter cover (%)		
	E Northing:	7497125	Logs	Twigs	Leaves
T	opography:	flat, drainage channel	0.1	0.5	3
	spect:	na	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	600	2
Ti	ime since fire (yrs):	plus 5	Mid	200	6
D	isturbance:	low	Lower	100	30
c	ondition:	excellent	Bare ground (%):	65	
Ē	bservations	CACCHOIN THE		00	
Ĕ	Species		Height (cm)	% AC	% DC
	Acacia aptaneura		300	1	
_	Acacia dictyophleba		400	1	
	Acacia pruinocarpa		400	4	
	Acacia synchronicia		400	2	
	Acacia tetragonophylla		200	0.2	
*	Cenchrus ciliaris		50	0.02	
	Cleome viscosa		50	0.15	
	Corchorus sidoides subsp.	sidoides	50	0.1	
	Cucumis maderaspatanus			0.1	
	Dactyloctenium radulans		30	0.02	
	Duperreya commixta			0.1	
	Dysphania kalpari			0.01	
	Eragrostis setifolia		30	0.2	
	Eragrostis tenellula		15	0.01	
	Eremophila lanceolata			0.03	
	Euphorbia australis	illaciacha	00	0.01	
L	Evolvulus alsinoides var. v Gomphrena affinis subsp. j	-	20	0.01	
	· ·	บแม ด เ 61 เอเอ	25	0.02	
*	Gossypium australe Malvastrum americanum		60	0.15	
*	Portulaca oleracea		30	0.01 0.02	
H	Psydrax latifolia		30	0.02	
\vdash	Ptilotus exaltatus var. exalt	tatus	60	0.01	
	Ptilotus polystachyus			0.02	
	Sclerolaena cornishiana		20	0.01	
	Senna glutinosa subsp. pru	uinosa	200	0.15	
T	Senna notabilis		30	0.3	
	Solanum lasiophyllum		50	0.1	
	Trianthema triquetra			0.01	
	Tribulus suberosus			0.02	
L	Trichodesma zeylanicum v	ar. zeylanicum	30	0.02	
	Triodia epactia		100	30	





Plot:	B116	Corner	pw.	
Date:	20/04/2011	Camera	nw floora's camera	se
Date Revisit:	6/07/2011		2609	2611
		Photo #		2011
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3048	
Zone:	50	Soils	clay pan	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	745702	Soil comments:		
NW Northing:	7497783	Outcrop:	na	
SE Easting:	745752	Litter cover (%)		
SE Northing:	7497733	Logs	Twigs	Leaves
Topography:	flat	0.3	2	1
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	15
Time since fire (yrs):	plus 5	Mid	700	10
Disturbance:	low	Lower	20	4
Disturbance.	low	Lower	20	4
Condition:	excellent	Bare ground (%):	90	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon macrum		30	0.02	
Acacia aptaneura		700	20	
Acacia synchronicia		220	0.4	
Acacia tetragonophylla		400	1.5	
Alternanthera nodiflora		15	0.01	
* Bidens bipinnata		40	0.05	
Blumea tenella		10	0.05	
Boerhavia coccinea			0.2	
Cheilanthes sieberi subsp. s.	ieberi	15	0.12	
Chrysopogon fallax		110	3	
Cleome viscosa		40	0.15	
Corchorus sidoides subsp. s	iaoiaes	15	0.05	
Cucumis maderaspatanus			0.1	
Dactyloctenium radulans		30	0.02	
Dysphania melanocarpa forn	na ieucocarpa	40	0.02	
Enteropogon ramosus		00	0.02	
Eragrostis tenellula Eremophila forrestii ?subsp.	forraștii	20	0.07	
'	101163411	20	0.1	
Eremophila lanceolata Evolvulus alsinoides var. villo	ocioalay	30	0.2	
	JSICAIYX	20	0.05	
Goodenia microptera		20	0.01	
Goodenia prostrata		40	0.01	
Gossypium australe		40	0.02	
Josephinia eugeniae Maireana planifolia		30 40	0.02 0.03	
Perotis rara		10	0.03	
Polycarpaea longiflora		10	0.03	
* Portulaca oleracea			0.03	
Psydrax latifolia		300	1.5	
Pterocaulon sp.		30	0.1	
Ptilotus gaudichaudii var. ga	udichaudii	30	0.03	
Ptilotus helipteroides			0.01	
Ptilotus obovatus var. obova	tus	60	0.2	
Rhynchosia minima			0.01	

Senna artemisioides subsp. helmsii	40	0.1	
Senna notabilis	30	0.06	
Sida sp.		0.02	
Stenopetalum pedicellare	30	0.1	
Streptoglossa ?decurrens	5	0.04	
Unidentifiable sp.	5	0.02	
Wahlenbergia tumidifructa		0.01	





Date:		Corner	nw	se
	20/04/2011	Camera	floora's came	ra
Date Revisit:	N/A	Photo #	2612	2613
Initials:	jl fw	Camera Revisit:	N/A	•
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	depressions	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	746277	Soil comments:		
NW Northing:	7498443	Outcrop:		
SE Easting:	746327	Litter cover (%)		
SE Northing:	7498394	Logs	Twigs	Leaves
Topography:	flat	Logs	1.5	0.5
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	3
Time since fire (yrs):	plus 5	Mid	700	3
Disturbance:	low	Lower	60	15
Disturbance.	IOW	Lower	60	15
Condition:	excellent	Bare ground (%):	80	
Observations	surrou	nded by open clay pan mu	ılga with less h	erbs
Species		Height (cm)	% AC	% DC
Acacia aptaneura		700	3	
Acacia synchronicia		300	1	
Acacia tetragonophylla		300	0.6	
Aristida inaequiglumis		110	1	
Boerhavia coccinea			0.05	
* Cenchrus ciliaris		50	0.06	
Cleome oxalidea		10	0.01	
Cleome viscosa	idaidaa	50	0.3	
Corchorus sidoides subsp. s		20	0.01	
Dysphania melanocarpa form	na ieucocarpa	10	0.02	
Enneapogon robustissimus Eragrostis tenellula		30 20	0.02 0.02	
Eremophila lanceolata		40	0.02	
Euphorbia ?australis		70	0.06	
Evolvulus alsinoides var. ville	osicalvx	30	0.00	
Gomphrena affinis subsp. pi		30	0.01	
Goodenia prostrata			0.03	
Hakea lorea subsp. lorea		130	0.05	
* Portulaca oleracea			0.15	
Pterocaulon sp.		30	0.03	
Ptilotus aervoides			0.1	
Ptilotus gomphrenoides		20	0.03	
Salsola australis		50	8	
Sclerolaena cornishiana		20	0.01	
Senna artemisioides subsp.	oligophylla	130	0.15	
Senna notabilis Sida fibulifera		50	4	
1 > 102 TIDLUITOYO			0.02	
	JI DDD 4E40\	20	1/1/1/2	
Sida indulliera Sida sp. Pilbara (A.A. Mitche Solanum lasiophyllum	ell PRP 1543)	20 60	0.02	





Plot:	B118	Corner	nw	se
Date:	20/04/2011	Camera	floora's came	
Date Revisit:	N/A	Photo #	2614	2615
Initials:	il fdw		N/A	2013
		Camera Revisit:		
Initials Revisit:	N/A	Photo # Revisit:	N/A	
Zone:	50	Soils	depressions	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	746333	Soil comments:		
NW Northing:	7498919	Outcrop:	nz	
SE Easting:	746383	Litter cover (%)		
SE Northing:	7498869	Logs	Twigs	Leaves
Topography:	flat with erosion		1 2	0.5
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	600	76 COVE
Time since fire (yrs):	plus 5	Mid	000	14
			50	4
Disturbance:	low	Lower	50	4
Condition:	excellent	Bare ground (%):	96	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia aptaneura		600	14	
Acacia tetragonophylla		100	0.1	
Aristida holathera var. hola	nthera	20	0.1	
Aristida inaequiglumis		100	0.5	
Blumea tenella		10	0.1	
Boerhavia coccinea			0.3	
Centipeda minima		15	0.1	
Cleome viscosa		50	0.5	
Corchorus sidoides subsp.	sidoides	5	0.01	
Eragrostis setifolia		30	2	
Eragrostis tenellula		20	0.1	
Eremophila lanceolata		30	0.2	
Euphorbia ?australis			0.02	
Evolvulus alsinoides var. v	illosicalyx	20	0.02	
Goodenia prostrata			0.01	
Gossypium australe		40	0.1	ļ
Ipomoea muelleri			0.02	
Nicotiana occidentalis subs	sp. <i>obliqua</i>	50	0.02	
* Portulaca oleracea			0.2	
Psydrax latifolia		200	0.2	
Pterocaulon sp.		20	0.03	
Ptilotus gomphrenoides		20	0.15	
Rhynchosia minima			0.01	ļ
Salsola australis		20	0.03	
Sclerolaena cornishiana		20	0.03	
Senna notabilis		40	0.3	ļ
Solanum lasiophyllum		50	0.2	ļ
Streptoglossa sp.		20	0.1	1
Unidentifiable sp.		5	0.01	<u> </u>





Plot:	B119	Corner	nw	se
Date:	20/04/2011	Camera	floora's camera	30
Date Revisit:	N/A	Photo #	2615	2616
Initials:	jl fw	Camera Revisit:	N/A	2010
Initials Revisit:	N/A			
		Photo Revisit:	N/A	
Zone:	50	Soils	rocky loams ove	
Datum:	GDA94	Soil colour:	red brown with b	olack grains
NW Easting:	745000	Soil comments:		
NW Northing:	7498964	Outcrop:	na	
SE Easting:	745050	Litter cover (%)		
SE Northing:	7498914	Logs	Twigs	Leaves
Topography:	flat	1	2	3
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	600	8
Time since fire (yrs):	plus 5	Mid		~
Disturbance:	low	Lower	60	3
Disturbance.	IOW	Lower	00	
0 1111		D 1/0/)	00	
Condition:	excellent	Bare ground (%):	96	
Observations				0/ 50
Species		Height (cm)	% AC	% DC
Acacia aptaneura		600	5	
Acacia pruinocarpa		400	4	
Acacia tetragonophylla		200	0.5	
Aristida inaequiglumis		100	0.05	
* Cenchrus ciliaris		40	0.04	
Chrysopogon fallax		100	0.04	
Cleome viscosa	.,.,	50	0.2	
Corchorus sidoides subsp	. sidoides	15	0.02	
Cucumis maderaspatanus			0.05	
Eragrostis tenellula		20	0.1	
Eremophila lanceolata		30	0.1	
Eriachne mucronata		50	0.2	
Euphorbia ?australis	nilharanaia	00	0.02	
Gomphrena affinis subsp.	hinai Gi 1919	20 30	0.01 0.01	
Gossypium australe Heliotropium heteranthum		1	0.01	
Maireana planifolia		40	0.01	
Perotis rara		10	0.01 0.15	
Polycarpaea longiflora Portulaca oleracea		20	0.15	
Psydrax latifolia		200	0.2	
Ptilotus exaltatus var. exal	Itatus	40	0.03	
Ptilotus obovatus var. obo		50	1	
Salsola australis	valus	30	0.3	
Sclerolaena cornishiana		20	0.03	
Senna artemisioides subs	o. helmsii	80	0.4	
Senna glutinosa subsp. pr		110	0.06	
Senna notabilis		40	0.1	





Р	ot:	B120	Corner	nw	se
_	ate:	20/04/2011	Camera	floora's camera	
_	ate Revisit:	N/A	Photo #	2617	2618
	itials:	il fw	Camera Revisit:	N/A	
	itials Revisit:	N/A	Photo # Revisit:	N/A	
	one:	50	Soils	rocky loams ov	er clav nan
-	atum:	GDA94	Soil colour:	-	
	*********		Soil colour:	red brown with	black grains
_	W Easting:	745005			
_	W Northing:	7499429	Outcrop:		
	E Easting:	745054	Litter cover (%)		
	E Northing:	7499379	Logs	Twigs	Leaves
T	opography:	flat	0.1	1	1
Α	spect:	0	STRATA	Ht (cm)	% Cover
S	ope:	0	Upper	800	6
Ti	me since fire (yrs):	plus 5	Mid		
D	isturbance:	low	Lower	50	2
\vdash	ondition: bservations	excellent	Bare ground (%):	97	
Н	Species		Height (cm)	% AC	% DC
	Acacia aptaneura		700	5	70 20
\vdash	Acacia aptarieura Acacia pruinocarpa		500	2	
H	Acacia synchronicia		130	0.1	
	Acacia tetragonophylla		100	0.1	
H	Aristida contorta		10	0.01	
	Boerhavia coccinea		10	0.3	
*	Cenchrus ciliaris		30	0.05	
	Chrysopogon fallax		100	0.02	
Н	Cleome viscosa		40	0.05	
	Corchorus sidoides subsp. s	sidoides	20	0.06	
	Eragrostis tenellula		15	0.03	
	Eriachne mucronata		30	0.1	
	Eriachne pulchella subsp. de	ominii	20	0.01	
	Euphorbia ?australis			0.05	
	Gomphrena affinis subsp. p.	ilbarensis	20	0.02	
	Goodenia prostrata			0.03	
	Hakea lorea subsp. lorea		400	0.6	
	Heliotropium heteranthum		1	0.01	
	Perotis rara		10	0.04	
	Polycarpaea longiflora		10	0.3	
*	Portulaca oleracea			0.2	
	Psydrax latifolia		300	1	
	Ptilotus obovatus var. obova	ntus	30	0.03	
	Salsola australis		30	0.03	
Щ	Sclerolaena cornishiana		20	0.01	
igspace	Senna artemisioides subsp.		50	0.3	
\vdash	Senna artemisioides subsp.	oligophylla	130	0.2	
\vdash	Senna notabilis		30 50	0.1	
\vdash	Solanum lasiophyllum		60	0.4	
\Box	Triodia longiceps		loo	U.Z	





Р	lot:	B121	Corner	nw	se
_	ate:	20/04/2011	Camera	floora's camera	
D	ate Revisit:	6/07/2011	Photo #	2620	2619
Ir	nitials:	jl fw	Camera Revisit:	Floora's camera	
Ir	nitials Revisit:	FW / PM	Photo # Revisit:	3051	
z	one:	50	Soils	rocky loams over	clay pans
D	atum:	GDA94	Soil colour:	red brown	
N	W Easting:	747149	Soil comments:		
_	W Northing:	7496217	Outcrop:	na	
S	E Easting:	747199	Litter cover (%)		
_	E Northing:	7496167	Logs	Twigs	Leaves
Т	opography:	flat	1		3
Α	spect:	0	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	1000	2
	ime since fire (yrs):	plus 5	Mid	300	6
D	isturbance:	low	Lower	20	4
-	ondition:	excellent	Bare ground (%):	95	
0	bservations	cattle			0/ 50
	Species		Height (cm)	% AC	% DC
	Acacia aptaneura		200	1	
	Acacia synchronicia		300	3	
_	Acacia tetragonophylla		200	0.5	
H	Acacia xiphophylla Boerhavia coccinea		300	0.2	
*	Cenchrus ciliaris		30	0.2	
-	Cleome viscosa		30	0.04	
	Corchorus sidoides subsp.	sidoides	20	0.03	
H	Dactyloctenium radulans	0.00.000	20	0.02	
	Dichanthium sericeum sub	sp. <i>humiliu</i> s	10	0.01	
	Eragrostis setifolia	•	30	6	
	Eremophila lanceolata			0.03	
	Evolvulus alsinoides var. v	illosicalyx	5	0.01	
	Gossypium australe			0.01	
*	Portulaca oleracea			0.04	
	Pterocaulon sp.		10	0.02	
	Ptilotus exaltatus var. exalt	tatus	30	0.01	
	Salsola australis		30	0.04	
_	Sclerolaena cornishiana	a linear la Ha	100	0.01	
_	Senna artemisioides subsp	o. oligopnylla	100	0.1	
	Senna notabilis		30	0.3	
-	Solanum lasiophyllum Sporobolus australasicus		50 10	0.3	
	Sporobolus australasicus Sporobolus australasicus		10	1	
H	Streptoglossa sp.		10	0.02	
ᆫ	on optogrossa sp.		110	0.02	





Б	lot:	B122	Corner	DW.	60
	ate:	20/04/2011	Camera	nw floora's camera	se
\vdash	ate. ate Revisit:	6/07/2011		2622	2621
<u> </u>			Photo #		2021
	itials:	jl fw	Camera Revisit:	Floora's camera	
_	itials Revisit:	FW / PM	Photo # Revisit:	3052	
-	one:	50	Soils	rocky loams over o	lay pan
_	atum:	GDA94	Soil colour:	red brown	
Ν	W Easting:	747983	Soil comments:		
N	W Northing:	7495913	Outcrop:	na	
S	E Easting:	748030	Litter cover (%)		
S	E Northing:	7495863	Logs	Twigs	Leaves
T	opography:	flat	0.5		3
-	spect:	0	STRATA	Ht (cm)	% Cover
	lope:	0	Upper	700	5
	ime since fire (yrs):	plus 5	Mid		
_	isturbance:	low	Lower	70	20
Ĕ				10	20
	andition.	oveelle et	Dave	75	
\vdash	ondition:	excellent	Bare ground (%):	75	
0	bservations	cattle		2/ 12	0/ DC
_	Species		Height (cm)	% AC	% DC
	Abutilon macrum		30	0.01	
	Acacia aptaneura		700	5	
	Acacia inaequilatera		300	0.3	
	Acacia inaequilatera		100	0.2	
	Acacia pruinocarpa		400	1	
Ļ	Acacia tetragonophylla		80	0.1	
_	Bidens bipinnata		30	0.05	
*	Boerhavia coccinea		00	0.2	
	Cenchrus ciliaris Cheilanthes sieberi subsp. sieb	ori	60 10	0.02	
-	Cleome viscosa)en	50	0.02	
\vdash	Cucumis maderaspatanus		30	0.3	
	Cymbopogon obtectus			0.1	
-	Duperreya commixta			0.3	
	Eragrostis tenellula		10	0.1	
	Eremophila forrestii ?subsp. fo	rrestii	1	0.5	
	Gomphrena affinis subsp. pilba		30	0.02	
	Goodenia prostrata		1	0.02	
-	Hakea lorea subsp. lorea			0.2	
H	Maireana planifolia		50	0.1	
*	Malvastrum americanum		30	0.02	
H	Perotis rara		10	0.05	
*	Portulaca oleracea			0.2	
	Psydrax latifolia		200	0.1	
	Pterocaulon sp.		40	0.03	
	Ptilotus obovatus var. obovatus	S	50	0.2	
	Salsola australis		30	0.15	
	Sclerolaena cornishiana		20	0.01	
<u></u>	Senna artemisioides subsp. ?	, ,,		0.01	
<u> </u>	Senna artemisioides subsp. he	elmsii	30	0.03	
-	Senna notabilis		30	0.05	
-	Sida fibulifera		50	0.03	
\vdash	Solanum lasiophyllum	zovlanicum	50	1 0.01	
	Trichodesma zeylanicum var. z	zeyiariiCurri		0.01	

Trichodesma zeylanicum var. zeylanicum	40	0.04	
Triodia epactia	60	10	





	1		•	
Plot:	B123	Corner	nw	see
Date:	20/04/2011	Camera	floora's camera	
Date Revisit:	6/07/2011	Photo #	2623	2626
Initials:	jl fw	Camera Revisit:	Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:	3053	
Zone:	50	Soils	clay pan	
Datum:	GDA94	Soil colour:	red brown	
NW Easting:	748701	Soil comments:		
NW Northing:	7495313	Outcrop:	na	
SE Easting:	748751	Litter cover (%)		
SE Northing:	7495263	Logs	Twigs	Leaves
Topography:	flat	0.1	_	3
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	5
Time since fire (yrs):	plus 5	Mid		
Disturbance:	low	Lower	50	1.5
Condition:	excellent	Bare ground (%):	98	
Observations	cattle			
Species	oattio	Height (cm)	% AC	% DC
Acacia aptaneura		700	6	
Acacia synchronicia		300	1.5	
Aristida contorta		20	0.01	
Aristida inaequiglumis		100	0.02	
Boerhavia coccinea			0.2	
Chrysopogon fallax			0.03	
Cleome viscosa		40	0.2	
Corchorus sidoides subsp	. sidoides	10	0.02	
Dactyloctenium radulans		30	0.01	
Dichanthium sericeum sub		25	0.1	
Eremophila forrestii ?subs	p. <i>forrestii</i>	60	0.1	
Eremophila lanceolata		30	0.1	
Eriachne mucronata Euphorbia ?australis		40	0.5 0.02	
Gomphrena affinis subsp.	nilharensis	20	0.02	
* Malvastrum americanum	piibarcrisis	20	0.02	
* Portulaca oleracea			0.02	
Salsola australis		30	0.15	
Sclerolaena cornishiana		10	0.01	
Senna artemisioides subs	o. helmsii	100	0.1	
Senna artemisioides subs		110	0.1	
Senna notabilis		30	0.2	
Sida sp. spiciform panicles	s (E. Leyland s.n. 14/8	3/920	0.04	
Solanum lasiophyllum		60	0.3	
Sporobolus australasicus		10	0.1	
Sporobolus australasicus			0.1	





Plot:	B124	Corner	nw	se
Date:	20/04/2011	Camera	floora's camera	00
Date Revisit:	6/07/2011	Photo #	2627	2628
Initials:	il fw	Camera Revisit:		
Initials Revisit:	FW / PM	Photo # Revisit:	3054	
Zone:	50	Soils	sandy loams over	r clay nan
Datum:	GDA94		•	
		Soil colour:	red brown with bla	ack grains
NW Easting:	749671	Soil comments:		
NW Northing:	7495429	Outcrop:	na	
SE Easting:	749721	Litter cover (%)		
SE Northing:	7495379	Logs	Twigs	Leaves
Topography:	flar	0.1	1	1
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	15
Time since fire (yrs):	plus 5	Mid		
Disturbance:	low	Lower	100	6
Condition:	excellent	Bare ground (%)	85	
Observations		<u> </u>		
Species	1	Height (cm)	% AC	% DC
Acacia ancistrocarpa		3 (4)	0.15	
Acacia aptaneura		700	14	
Acacia inaequilatera		200	0.1	
Acacia inaequilatera			0.1	
Acacia pruinocarpa		600	3	
Acacia synchronicia		300	0.2	
Acacia tetragonophylla		200	0.1	
Anthobolus leptomerioides	:	250	0.3	
* Bidens bipinnata		30	0.02	
* Cenchrus ciliaris		50	0.5	
Chrysopogon fallax			0.02	
Cleome viscosa		50	0.06	
Corchorus sidoides subsp			0.12	
Cucumis maderaspatanus			0.5	
Dodonaea petiolaris		100	0.2	
Duperreya commixta			0.05	
Eremophila forrestii ?subs	p. forrestii	80	0.1	
Eremophila longifolia		30	0.01	
Gossypium australe		40	0.02	
Indigofera monophylla		50	0.06	
Ipomoea muelleri		10	0.2	
Maireana planifolia		40	0.1	
* Portulaca oleracea		250	0.15	
Psydrax latifolia Pterocaulon sphaeranthoid	1 00	250	0.1 0.05	
Ptilotus exaltatus var. exal		40	0.02	
Ptilotus obovatus var. obo		80	0.02	
Rhagodia eremaea		120	0.15	
Sclerolaena cornishiana		30	0.01	
Senna artemisioides subs	p. oligophylla	100	0.05	
Senna notabilis		30	0.02	
Sida sp. Pilbara (A.A. Mito		30	0.02	
Sida sp. spiciform panicles	s (E. Leyland s.n. 14/8/90)	30	0.02	
Sporobolus australasicus		10	0.2	
Sporobolus australasicus			0.1	

Triodia epactia	100	6	





Plot:	B125	Corner	nw	se
Date:	20/04/2011	Camera	floora's camera	
Date Revisit:	6/07/2011	Photo #	2629	2630
Initials:	il fw		Floora's camera	
Initials Revisit:	FW / PM	Photo # Revisit:		
Zone:	50	Soils	loams over clay pan	
Datum:	GDA94	Soil colour:	red brown	
	747213	Soil colour:	rea brown	
NW Easting:				
NW Northing:	7495548	Outcrop:	na	
SE Easting:	747263	Litter cover (%)		
SE Northing:	7495498	Logs	Twigs	Leaves
Topography:	flat	0.4	2	4
Aspect:	0	STRATA	Ht (cm)	% Cover
Slope:	0	Upper	700	6
Time since fire (yrs):	plus 5	Mid		
Disturbance:	low	Lower	100	15
Condition:	excellent	Bare ground (%)	75	
Observations	cattle			
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		200	1	
Acacia aptaneura		800	3	
Acacia inaequilatera		200	1.5	
Acacia inaequilatera			1.5	
Acacia pruinocarpa		500	3	
Acacia tetragonophylla		200	0.2	
Aristida inaequiglumis		100	0.1	
Boerhavia coccinea			0.06	
Bulbostylis barbata		4	0.02	
* Cenchrus ciliaris			0.02	
Cleome viscosa			0.03	
Corchorus sidoides subsp. s	idoides	20	0.05	
Cucumis maderaspatanus				
Dactyloctenium radulans		30	0.03	
Duperreya commixta			0.2	
Dysphania kalpari	_		0.02	
Eremophila forrestii ?subsp.	torrestii	100	0.6	
Eremophila lanceolata		30	0.04	
Evolvulus alsinoides var. ville	•		0.02	
Gomphrena affinis subsp. pi	parensis	30	0.01	
Goodenia prostrata		50	0.01	
Gossypium australe		50	0.05	
Maireana planifolia		60	0.04	
Perotis rara		10	0.02	
* Portulaca oleracea		200	0.1	
Psydrax latifolia Ptilotus exaltatus var. exaltatus		40	0.01	
Rhynchosia minima		10	0.01	
Salsola australis		30	0.04	
Sclerolaena cornishiana		20	0.01	
Senna notabilis		30	0.3	
Solanum lasiophyllum		50	0.1	
Sporobolus australasicus		10	0.1	
Sporobolus australasicus			0.3	
Triodia epactia		100	12	





Plot	C001	Camera	Chris	
Date:	15-Apr	Photo #	641-642	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit	Dionwyn	
Initials revisit:	CH / BN	Soils	sandy loan	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	sandplain	
NW Easting:	747782	Outcrop:	Janapiani	
NW Northing:	7482500	Outcrop Type:		
SE Easting:	747832	Litter cover (%)		
SE Northing:	7482450	Logs	Twigs	Leaves
Topography:	flat		5	5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	` `	
Time since fire (yrs):	3	Mid	200	15
Disturbance:	low	Lower	130	40
Condition:	excellent	Bare ground (%):	50	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		30	0.5	
Acacia dictyophleba		30	0.05	
Acacia inaequilatera			0.01	
Acacia pachyacra		130	0.05	
Acacia tumida var. pilbarensi		170	12	
Aristida holathera var. holath	era	50	5	
Bonamia rosea		40	0.1	
Cleome viscosa		30	0.01	
Corchorus elachocarpus		50	0.2	
Corchorus elachocarpus		50	0.2	
Corymbia hamersleyana		700	0.1	
Dicrastylis cordifolia		40	0.02	
Eragrostis eriopoda		40	2	
Eremophila longifolia		130	0.01	
Eriachne aristidea		30	0.1	
Euphorbia australis		20	0.01	
Fimbristylis simulans		10	0.01	
Goodenia microptera Goodenia stobbsiana		20	0.01	
Goodenia stobbsiana Grevillea wickhamii subsp. hi	ispidula	20 200	0.01	
Hybanthus aurantiacus	οριαμία	30	0.05	
Indigofera monophylla		15	0.05	
Mollugo molluginea		10	0.01	
Paraneurachne muelleri		30	0.02	
Petalostylis labicheoides		120	0.2	
Polymeria ambigua		120	0.03	
Polymeria ambigua		10	0.05	
Ptilotus astrolasius		20	0.03	
Ptilotus astrolasius Ptilotus polystachyus		50	0.05	
Scaevola parvifolia subsp. parvifolia		20	2	
Senna artemisioides subsp. oligophylla		40	0.02	
Sida cardiophylla		100	1	
Tephrosia rosea var. glabrior		40	0.02	
Tephrosia sp. Bungaroo Cree		15	0.01	
Trianthema pilosa		5	0.01	
Trianthema pilosa			0.01	
Trichodesma zeylanicum var	. zeylanicum	15	0.01	
Triodia epactia	<i>j</i>	70	10	
Triodia schinzii		130	15	
daid doimina		1.00	1.~	<u> </u>





Plot:	C002	Camera	Chris	
Date:	15-Apr	Photo #	646-647	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH / BN	Soils	sandy loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA			
		Soil comments:	sandplain	
NW Easting:	747502	Outcrop:	<u> </u>	
NW Northing:	7483773	Outcrop Type:		
SE Easting:	747552	Litter cover (%)		
SE Northing:	7483723	Logs	Twigs	Leaves
Topography:	flat		2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	1
Time since fire (yrs):	3	Mid	300	3
Disturbance:	low	Lower	150	45
Condition:	excellent	Bare ground (%):	45	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		50	0.05	
Acacia dictyophleba		160	0.5	
Acacia inaequilatera		300	1	
Acacia pachyacra		300	1	
Acacia sericophylla			0.5	
Acacia sericophylla		300	0.5	
Aristida holathera var. h	olathera	40	2	
Bonamia rosea		20	1	
Cenchrus ciliaris		60	0.05	
Cleome viscosa		70	0.01	
Clerodendrum floribundu	ım var. angustifolium	250	0.05	
Corchorus elachocarpus		30	5	
Corchorus elachocarpus			0.01	
Corymbia hamersleyana		700	1	
Cucumis maderaspatant	JS		0.01	
Cullen leucanthum		250	2	
Cymbopogon obtectus		130	0.01	
Dicrastylis cordifolia		40	0.05	
Dicrastylis cordifolia		30	0.01	
Eragrostis eriopoda		40	5	
Eriachne aristidea		30	0.01	
Euphorbia australis		15	0.01	
Goodenia microptera		20	0.01	1
Goodenia microptera		20 300	0.01	
Grevillea wickhamii subsp. hispidula Hibiscus sturtii var. platychlamys		70	0.5	
		30	0.1	
Hybanthus aurantiacus Indigofera colutea		20	0.01	
Indigofera monophylla		40	0.01	
Paraneurachne muelleri		30	0.5	
Petalostylis labicheoides	<u> </u>	180	0.05	
Ptilotus astrolasius		20	0.05	
Ptilotus polystachyus		30	0.1	
Scaevola parvifolia subs	p. parvifolia	15	0.1	
Senna notabilis		15	0.01	

Sida cardiophylla	30	0.05	
Solanum centrale	20	0.5	
Solanum lasiophyllum	20	0.01	
Trianthema pilosa	5	0.01	
Tribulus macrocarpus	5	0.01	
Triodia basedowii	100	2	
Triodia epactia	70	15	
Triodia schinzii	150	10	





Dist	0000	In	Obaria	
Plot:	C003	Camera	Chris	
Date:	15-Apr	Photo #	649 650	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	laam	
Initials revisit:	CH / BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	some surface ro	ck
NW Easting:	741680	Outcrop:		
NW Northing:	7492603	Outcrop Type:		
SE Easting:	741730	Litter cover (%)		
SE Northing:	7492553	Logs	Twigs	Leaves
Topography:			4	1
Aspect:	flat	STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	3	Mid	250	2
Disturbance:	low	Lower	130	35
Condition:	excellent	Bare ground (%):	60	
Observations		1 5 ()		
Species	l	Height (cm)	% AC	% DC
Acacia ancistrocarpa		150	1	
Acacia inaequilatera		250	1.5	
Acacia pruinocarpa		160	0.05	
Aristida contorta		30	0.05	
Aristida contorta Aristida holathera var. holathera		20	0.05	
Boerhavia coccinea		10	0.01	
Bulbostylis barbata		5	0.01	
Chrysopogon fallax		130	0.2	
Cleome viscosa		30	0.01	
Corchorus sidoides subsp. sidoides		20	0.05	
Cucumis maderaspatanus			0.05	
Duperreya commixta			0.01	
Dysphania rhadinostachya		20	0.01	
Eragrostis tenellula		30	0.01	
Eriachne aristidea		30	0.05	
Eriachne pulchella subsp. pulchella		30	0.01	
Euphorbia australis		15	0.01	
Gomphrena affinis subsp. pilbarensis		15	0.01	
Goodenia microptera		15	0.01	
Goodenia muelleriana		5	0.01	
Gossypium australe		30	0.02	
Hakea lorea subsp. lorea		250	0.5	
Heliotropium inexplicitum		10	0.01	
Hibiscus sturtii var. platychlamys		30	0.5	
Phyllanthus erwinii		5	0.01	
Portulaca oleracea		5	0.02	
Ptilotus exaltatus var. exaltatus		15	0.05	
Ptilotus gomphrenoides		5	0.01	
Ptilotus obovatus		25	0.02	
Senna artemisioides subsp. helmsii		40	0.1	
Senna artemisioides subsp. oligophylla		50	0.5	
Senna notabilis Sida cardiophylla		20 15	0.1	
Sida echinocarpa		30	0.01	
Sida platycalyx		5	0.01	
Solanum lasiophyllum		30	0.5	
Sporobolus australasicus		10	0.05	
Tephrosia supina		20	0.05	
Trianthema pilosa		5	0.01	
Tribulus macrocarpus		5 70	0.01 30	
Triodia epactia		[10	3U	





Plot:	C004	Camera	Chris	
Date:	15-Apr	Photo #	652-653	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	DIOIIW YII	
Initials revisit:	CH / BN		loam	
		Soils		
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	741743	Outcrop:		
NW Northing:	7493340	Outcrop Type:		
SE Easting:	741793	Litter cover (%)		
SE Northing:	7493290	Logs	Twigs	Leaves
Topography:			2	8
Aspect:	flat	STRATA	Ht (cm)	% Cover
Slope:		Upper	111 (0111)	70 0010.
Time since fire (yrs):	5	Mid	400	15
Disturbance:	low	Lower	130	60
Condition:	excellent	Bare ground (%):	30	00
	excellent	Dare ground (70).	30	
Observations		Hoight (am)	% AC	% DC
Species		Height (cm)		70 DC
Abutilon lepidum		30	0.01	
Acacia ancistrocarpa		250	7	
Acacia inaequilatera		400	3	
Acacia pruinocarpa		300 300	3	
Acacia synchronicia Anthobolus leptomerioides		15	0.5	
Aristida contorta		20	0.05	
Aristida holathera		30	0.02	
Boerhavia coccinea		5	0.01	
Bulbostylis barbata		5	0.01	
Cenchrus ciliaris		40	0.1	
Chrysopogon fallax		130	0.5	
Cleome viscosa		40	0.01	
Corchorus sidoides subsp. sidoide	es	20	0.05	
Cucumis maderaspatanus			0.05	
Duperreya commixta			0.01	
Enneapogon polyphyllus		30	0.01	
Eriachne aristidea		20	0.05	
Euphorbia alsiniflora		20	0.01	
Euphorbia australis Evolvulus alsinoides var. villosical	107	15	0.05	
Gomphrena affinis subsp. pilbarer		15 15	0.01	
Grevillea wickhamii subsp. hispidu		300	0.01	
Hakea lorea subsp. lorea		300	1	
Hibiscus sturtii var. platychlamys		30	0.01	
Indigofera colutea		20	0.01	
Paraneurachne muelleri		20	0.05	
Paspalidium basicladum		20	0.01	
Perotis rara		10	0.01	
Polygala isingii		15	0.01	
Pterocaulon sphaeranthoides		15	0.01	
Rhynchosia minima Senna artemisioides subsp. helms	rii	20 60	0.01	
Senna notabilis	···	20	1	
Sida platycalyx		10	0.02	
Solanum lasiophyllum		20	0.1	
Streptoglossa sp.		10	0.01	
Triodia epactia		120	55	





Plot:	C005	Camera	Chris	
Date:	16-Apr	Photo #	655-656	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH / BN	Soils	sandy loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	747998	Outcrop:		
NW Northing:	7481988	Outcrop Type:		
SE Easting:	748048	Litter cover (%)		
SE Northing:	7481938	Logs	Twigs	Leaves
Topography:	flat		3	7
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	4	Mid	350	5
Disturbance:	low	Lower	120	45
Condition:	excellent	Bare ground (%):	45	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		40	0.01	
Acacia dictyophleba		15	0.01	
Acacia inaequilatera		350	3	
Acacia pachyacra		300	1	
Aristida holathera var. holath	era	30	0.1	
Bonamia rosea		40	0.5	
Cleome viscosa		30	0.01	
Corchorus elachocarpus		40	1	
Corchorus elachocarpus			1	
Dicrastylis cordifolia	de en l'affa (e	50	0.1	
Dysphania rhadinostachya su	ubsp. <i>Inflata</i>	10	0.01	
Eragrostis eriopoda Eriachne aristidea		40 30	0.1 0.01	
Goodenia microptera		15	0.01	
Grevillea wickhamii subsp. hi	isnidula	80	0.01	
Hakea lorea subsp. lorea	органа	250	0.55	
Indigofera monophylla		30	0.05	
Ptilotus astrolasius		30	0.5	
Ptilotus polystachyus		40	0.02	
Senna artemisioides subsp. oligophylla		40	0.05	
Senna notabilis		15	0.01	
Sida cardiophylla		50	1	
Solanum centrale		15	0.05	
Solanum lasiophyllum		20	0.01	
Trianthema pilosa		10	0.05	
Tribulus macrocarpus		5	0.01	
Triodia basedowii		80	40	
Triodia epactia		50	0.01	
Triodia schinzii		130	0.5	





Plot:	C006	Camera	Chris	
Date:	16-Apr	Camer revisit	658-659	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	sandy loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	748512	Outcrop:		
NW Northing:	7481815	Outcrop Type:		
SE Easting:	748562	Litter cover (%)		
SE Northing:	7481765	Logs	Twigs	Leaves
Topography:	flat	_	3	7
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	4	Mid	4	3
Disturbance:	low	Lower	160	50
Condition:	excellent	Bare ground (%):	40	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		120	0.1	
Acacia dictyophleba		15	0.01	
Acacia pachyacra		200	0.5	
Acacia sericophylla		400	1	
Bonamia rosea		30	0.5	
Corchorus elachocarpus		30	0.05	
Corchorus elachocarpus		15	0.01	
Dicrastylis cordifolia		40	1	
Eragrostis eriopoda		30	0.05	
Eriachne aristidea		20	0.01	
Hakea chordophylla		400	2	
Hakea lorea subsp. lorea		400	0.1	
Hibiscus sturtii var. platychla	mys	130	0.01	
Petalostylis labicheoides		120	0.5	
Ptilotus polystachyus		25	0.01	
Scaevola parvifolia subsp. parvifolia		20	0.1	
Senna notabilis		15	0.01	
Sida cardiophylla		30	0.05	
Trianthema pilosa		15	0.1	
Tribulus hirsutus		5 5	0.01	
Tribulus macrocarpus Triodia basedowii		80	5	
Triodia schinzii		150	40	
THOUIA SUIIIIZII		130	1-0	





Plot:	C007	Camera	Chris	
Date:	16-Apr	Photo #	661-662	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	bionwyn	
			la a ma	
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	743816	Outcrop:		
NW Northing:	7491532	Outcrop Type:		
SE Easting:	743866	Litter cover (%)		
SE Northing:	7491482	Logs	Twigs	Leaves
Topography:	flat		2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	5
Time since fire (yrs):	5	Mid	300	5
Disturbance:	low	Lower	150	60
Condition:	excellent	Bare ground (%):	30	00
Observations	OXOGIIGI II	g. caa (////	1 00	l
Species		Height (cm)	% AC	% DC
Abutilon otocarpum		30	0.01	
Acacia ancistrocarpa		250	1.00	
Acacia citrinoviridis		500	1.00	
Acacia dictyophleba		250	0.50	
Acacia inaequilatera		400	3.00	
Acacia pruinocarpa		500 250	1.00	
Acacia synchronicia		15	0.01	
Acacia synchronicia Aristida contorta		20	0.01	
Aristida contorta Aristida holathera var. holathe	ra	30	0.05	
Boerhavia coccinea		15	0.03	
Bulbostylis barbata		5	5.00	
Cenchrus ciliaris		40	0.50	
Chrysopogon fallax		130	5.00	
Cleome viscosa		30	0.01	
Corchorus sidoides subsp. sid	loides	30	0.05	
Corymbia hamersleyana		600	0.10	
Cucumis maderaspatanus			0.05	
Dysphania rhadinostachya		20	0.01	
Enneapogon polyphyllus		20	0.05	
Eragrostis cumingii		15	0.01	
Eragrostis eriopoda		30	1.00	
Eremophila forrestii subsp. for	restii	140	0.10	
Eremophila lanceolata		10	0.01	
Eremophila longifolia		150	0.05	
Eriachne aristidea		20	0.05	
Euphorbia australis		5	0.01	
Euphorbia australis		10	0.01	
Evolvulus alsinoides var. villos	-	10	0.01	
Gomphrena affinis subsp. pilb	arensis	30	0.01	
Goodenia muelleriana		5	0.01	
Gossypium australe		130	0.05	
Hakea lorea subsp. lorea	21.0	350	2.00	
Hibiscus sturtii var. platychlam Indigofera monophylla	iys	70 30	0.01 0.05	
пинуогета тпопорпуна		Jou	JU.US	<u> </u>

Species	Height (cm)	% AC	% DC
Ipomoea muelleri	5	0.01	
Paraneurachne muelleri	30	0.20	
Perotis rara	5	0.05	
Poaceae sp.	40	0.01	
Polycarpaea corymbosa	10	0.01	
Portulaca oleracea	5	0.01	
Ptilotus helipteroides	20	0.01	
Rhynchosia minima		0.01	
Sclerolaena cornishiana	20	0.05	
Senna artemisioides subsp. helmsii	50	0.10	
Senna notabilis	15	0.05	
Sida platycalyx	5	0.01	
Sida platycalyx	30	0.01	
Solanum lasiophyllum	40	0.05	
Sporobolus australasicus	15	0.01	
Streptoglossa? odora	20	0.02	
Streptoglossa odora	5	0.01	
Tephrosia supina	10	0.01	
Tragus australianus	20	0.01	
Trianthema pilosa	5	0.01	
Tribulus macrocarpus	5	0.01	
Trichodesma zeylanicum	15	0.01	
Triodia epactia	80	40.00	





Ē	lat.	0000	0	Ol: -	
_	lot:	C008	Camera	Chris	
_	ate:	16-Apr	Photo #	668-669	
_	ate revisit:	Jul-11	Camera revisit	bronwyn	
_	nitials:	mf ch	Photo # revisit		
_	nitials revisit:	CH/BN	Soils	clay loam	
Z	one:	50	Soil colour:	red brown	
D	atum:	GDA	Soil comments:		
Ν	W Easting:	739069	Outcrop:		
N	W Northing:	7492515	Outcrop Type:		
_	E Easting:	739119	Litter cover (%)		
_	E Northing:	7492465	Logs	Twigs	Leaves
_	opography:	flat	Logs 1	3	2
_		liai			_
	spect:		STRATA	Ht (cm)	% Cover
	lope:	-	Upper	700	10
	ime since fire (yrs):	5	Mid	400	2
_	isturbance:	medium	Lower	120	10
_	ondition:	very good	Bare ground (%):	85	
0	bservations	heavy grazing by cattle			
L	Community Description				
	Species		Height (cm)	% AC	% DC
	Abutilon otocarpum		15	0.01	
	Acacia ?aneura		600	8	
	Acacia dictyophleba		200	0.1	
	Acacia pruinocarpa		200	1	
	Acacia synchronicia		300	1	
	Aristida contorta		20	0.01	
Aristida inaequiglumis		15	0.01		
	Boerhavia burbidgeana		10	0.01	
_	Boerhavia coccinea		5	0.01	
*	Cenchrus ciliaris		80	1	
*	Cenchrus setiger		80	1	
	Chrysopogon fallax Corchorus sidoides subsp. sidoide	20	120	0.2	
	Corchorus tridens	73	30 10	0.1 0.01	
	Corymbia hamersleyana		700	2	
	Cucumis maderaspatanus		7 00	0.01	
	Enchylaena tomentosa		15	0.05	
	Enneapogon polyphyllus		15	0.1	
T	Eragrostis setifolia		20	0.01	
Г	Eremophila forrestii ?subsp. forres	stii	50	0.1	
	Eremophila lanceolata		20	0.5	
	Eremophila longifolia		150	0.05	
	Euphorbia australis		10	0.01	
L	Euphorbia boophthona		15	0.05	
L	Evolvulus alsinoides var. villosicai	'yx	15	0.01	
L	Goodenia muelleriana		5	0.1	
L	Goodenia muelleriana		15	0.01	
H	Gossypium australe		60 400	0.2	
H	Hakea lorea subsp. lorea Perotis rara		15	0.01	
Т	Polycarpaea corymbosa		10	0.01	
*	* Portulaca oleracea		5	0.2	
		10	0.01		
		20 70	0.2 0.1		
H	Senna artemisioides subsp. neims		50	0.1	
Т	Senna notabilis	· , -	20	1	
	Sida platycalyx		10	0.5	
Ĺ	Sida platycalyx		20	0.01	
L	Solanum lasiophyllum		400 15	0.5 0.05	
H	Sporobolus australasicus Tribulus macrocarpus		5	0.05	
H	Triodia epactia		80	1	
_					





Plot:	C009	Camera	Chris	
Date:	16-Apr	Photo #	671-672	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	clay	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	100 5101111	
	730248			
NW Easting:		Outcrop:		
NW Northing:	7501774	Outcrop Type:		
SE Easting:	730298	Litter cover (%)		
SE Northing:	7501724	Logs	Twigs	Leaves
Topography:	flat		2	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	300	30
Disturbance:	medium	Lower	100	40
Condition:	Good	Bare ground (%):	55	
Observations	heavy grazing by catt	le		
Species		Height (cm)	% AC	% DC
Acacia ?aneura		300	0.2	
Acacia ?synchronicia		250	30	
Asteraceae sp.		40	0.01	
Boerhavia burbidgeana		5	1	
Calotis multicaulis		15	0.01	
Cenchrus ciliaris		70	15	
Cenchrus setiger		70	15	
Cleome viscosa		30	0.05	
Corchorus sidoides subsp. sidoid	des	15	0.01	
Corchorus tridens		10	0.01	
Eremophila longifolia		70	0.1	
Euphorbia drummondii subsp. dr	ummondii	5	0.05	
Indigofera monophylla		20	0.01	
Ipomoea muelleri		10	2	
Portulaca oleracea		5	0.01	
Pterocaulon sp.		15	0.01	
Ptilotus exaltatus var. exaltatus		30	0.01	
Ptilotus macrocephalus		40	0.5	
Ptilotus obovatus var. obovatus		50	0.05	
Rhagodia eremaea		100 30	0.02	
Salsola australis Sclerolaena cornishiana		20	0.05	
Senna glutinosa subsp. glutinosa		250	0.05	
Senna giutinosa subsp. giutinosa Senna notabilis		5	0.05	
Sporobolus australasicus		10	0.03	
Streptoglossa odora		5	0.01	
Tribulus astrocarpus		5	0.01	
Vachellia farnesiana		150	0.05	
- I Stroma tarrisonaria		1.55	13.00	





Plot:	C010	Camera	Chris	
Date:	16-Apr	Photo #	674-675	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	1	
Initials revisit:	CH/BN	Soil:	clay	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	730231	Outcrop:		
NW Northing:	7501343	Outcrop Type:		
SE Easting:	730281	Litter cover (%)	<u> </u>	Ι.
SE Northing:	7501293	Logs	Twigs	Leaves
Topography:	flat		1	4
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	500	1
Time since fire (yrs):	5	Mid	350	35
Disturbance:	medium	Lower	80	60
Condition:	Good	Bare ground (%):	35	
Observations	heavy grazing by cattle			
Species		Height (cm)	% AC	% DC
Acacia ?aneura		500	0.5	
Acacia ?synchronicia		350	40	
Acacia citrinoviridis		250	0.1	
Acacia pruinocarpa		500	0.5	
Aristida contorta		30	0.01	
Aristida inaequiglumis		40	0.01	
Boerhavia burbidgeana		10	0.5	
Calotis multicaulis		10	0.01	
Cenchrus ciliaris		80	45	
Cenchrus setiger		80	10	
Chrysopogon fallax		120	0.01	
Cleome viscosa		40	0.01	
Corchorus sidoides subsp. si	doides	20	0.05	
Corchorus tridens		5	0.01	
Cullen sp.		10	0.01	
Dysphania kalpari		5	0.01	
Dysphania rhadinostachya su	bsp. rhadinostachya	5	0.01	
Enneapogon polyphyllus		30	0.01	
Eremophila lanceolata			1	
Eremophila longifolia		150	0.1	
Euphorbia drummondii subsp. drummondii		10	0.01	
Euphorbia tannensis subsp. eremophila		5	0.02	
Ipomoea muelleri		15	1	
Portulaca oleracea		5	0.05	
Ptilotus macrocephalus		40	0.05	
Salsola australis		30	0.5	
Sclerolaena cornishiana Senna artemisioides subsp. c	nligophylla	15 50	0.05 0.05	
Comina antermisionaes subsp. C	nigopriyila	100	10.00	l





Plot:	C011	Camera	Chris	
Date:	17-Apr	Photo #	677-678	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	silty loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	736757	Outcrop:		
NW Northing:	7495163	Outcrop Type:		
SE Easting:	736807	Litter cover (%)		
SE Northing:	7495113	Logs	Twigs	Leaves
Topography:	flat	2	2	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	10	25
Time since fire (yrs):	5	Mid		
Disturbance:	medium	Lower	130	50
Condition:	good	Bare ground (%):	45	
Observations	heavy grazing by c			
Species		Height (cm)	% AC	% DC
Acacia ?aneura		700	23	
Acacia ?synchronicia		50	0.01	
Acacia citrinoviridis		250	0.05	
Acacia inaequilatera		350	0.1	
Acacia pruinocarpa		1000	1	
Boerhavia coccinea		10	0.01	
Cenchrus ciliaris		80	25	
Cenchrus setiger		80	25	
Chrysopogon fallax		120	0.05	
Corchorus tridens		5	0.01	
Corymbia hamersleyana		800	1	
Hakea lorea subsp. lorea		350	0.1	
Rhagodia eremaea		70	0.01	
Senna notabilis		115	0.01	
Solanum lasiophyllum		30 120	0.02	
Triodia epactia			0.1	
Unidentifiable sp.		5	0.01	





Plot:	C012	Camera	Chris	
Date:	17-Apr	Photo #	681-682	
Date revisit:	Jul-11	camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	732636	Outcrop:		
NW Northing:	7500171	Outcrop Type:		
SE Easting:	732686	Litter cover (%)		
SE Northing:	7500121	Logs	Twigs	Leaves
Topography:	flet		1	2
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	` ´	
Time since fire (yrs):	5	Mid	400	10
Disturbance:	medium	Lower	120	5
Condition:	good	Bare ground (%):	92	
Observations	heavy grazing f	rom cattle	•	
Species	•	Height (cm)	% AC	% DC
Acacia ?aneura		350	0.2	
Acacia ?synchronicia		300	9	
Acacia citrinoviridis		400	0.1	
Acacia inaequilatera		300	0.2	
Acacia pruinocarpa		350	0.1	
Cenchrus ciliaris		70	2	
Cenchrus setiger		70	2	
Chrysopogon fallax		120	0.01	
Cleome viscosa		20	0.01	
Corchorus tridens		5	0.01	
Eremophila lanceolata		30	0.01	
Euphorbia boophthona		5	0.01	
Hakea lorea subsp. lorea		350	0.5	
Ipomoea muelleri		5	0.01	
Portulaca oleracea		5	0.01	
Ptilotus aervoides		3	0.01	
Ptilotus obovatus var. obovatus		20	0.05	
Rhagodia eremaea		60	0.02	
Sclerolaena cornishiana		20	0.05	
Senna artemisioides subsp	p. oligophylla	30	0.05	
Solanum lasiophyllum		300	0.05	





Plot:	C013	Camera	Chris	
Date:	17-Apr	Photo #	684-685	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	733450	Outcrop:		
NW Northing:	7499499	Outcrop Type:		
SE Easting:	733500	Litter cover (%)		
SE Northing:	7499449	Logs	Twigs	Leaves
Topography:	flat	2	3	7
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	20
Time since fire (yrs):	5	Mid	250	3
Disturbance:	medium	Lower	130	80
Condition:	good	Bare ground (%):	10	
Observations	heavy grazing fror	n cattle		
Species		Height (cm)	% AC	% DC
Abutilon lepidum		30	0.01	
Acacia ?aneura		1000	15	
Acacia ?synchronicia		250	3	
Acacia citrinoviridis		800	5	
Acacia pruinocarpa		150	0.05	
Alysicarpus muelleri		30	0.01	
Amyema fitzgeraldii			0.5	
Cenchrus ciliaris		80	28	
Cenchrus setiger		80	50	
Chrysopogon fallax		120	0.5	
Corchorus tridens		5	0.01	
Cucumis maderaspatanus			0.2	
Ipomoea muelleri		1.5	1	
Senna notabilis		15	0.05	





Plot:	C014	Camera	Chris	
Date:	17-Apr	Photo #	688-689	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	sand dune	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	sand dune	
NW Easting:	726793	Outcrop:		
NW Northing:	7505838	Outcrop Type:		
SE Easting:	726843	Litter cover (%)		
SE Northing:	7505783	Logs	Twigs	Leaves
Topography:	dune ridge		10	5
Aspect:	dune running nw to se	STRATA	Ht (cm)	% Cover
Slope:	ridge	Upper		
Time since fire (yrs):	5	Mid	250	10
Disturbance:	low	Lower	140	30
Condition:	excellent	Bare ground (%):	55	
Observations				
Species		Height (cm)	% AC	% DC
Acacia dictyophleba		250	5	
Acacia sclerosperma subsp.	sclerosperma	250	0.2	
Aristida holathera var. holath	era	20	0.2	
Bonamia rosea		30	0.2	
Cenchrus ciliaris		70	3	
Corchorus ?elachocarpus		20	0.1	
Corchorus ?elachocarpus		20	0.1	
Crotalaria cunninghamii		30	0.05	
Eragrostis eriopoda		30	0.5	
Hakea lorea subsp. lorea		250	0.3	
Hibiscus leptocladus		120	0.05	
Indigofera monophylla		20	0.05	
Ptilotus polystachyus		30	0.1	
Rhyncharrhena linearis			0.1	
Senna artemisioides subsp. helmsii		70	0.02	
Senna notabilis		15	0.01	
Sida cardiophylla		30	0.05	
Sida cardiophylla		30	0.05	
Stylobasium spathulatum		200	5	
Trianthema pilosa Triodia basedowii		5 120	3 5	
Triodia basedowii Triodia schinzii		140	15	
THOUIA SCHIIIZII		1140	10	





Plot:	C015	Camera	Chris	
Date:	17-Apr	Photo #	691-692	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	sandy loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	dune swale	
NW Easting:	726643	Outcrop:		
NW Northing:	7505754	Outcrop Type:		
SE Easting:	726693	Litter cover (%)		
SE Northing:	7505704	Logs	Twigs	Leaves
Topography:	dune swale		1	4
Aspect:	dune swale running n	STRATA	Ht (cm)	% Cover
Slope:	swale	Upper	600	2
Time since fire (yrs):	5	Mid	400	5
Disturbance:	low	Lower	140	40
Condition:	excellent	Bare ground (%):	55	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		130	0.2	
Acacia dictyophleba		180	0.1	
Acacia inaequilatera		300	0.2	
Acacia pachyacra		40	0.02	
Acacia sclerosperma subsp.	sclerosperma	400	4	
Acacia tetragonophylla		170	0.1	
Atalaya hemiglauca		700	1	
Boerhavia burbidgeana		5	0.01	
Cenchrus ciliaris		80	18	
Cleome viscosa		30	0.01	
Corymbia hamersleyana Dysphania rhadinostachya		700 20	0.02	
Eragrostis eriopoda		30	0.02	
Euphorbia alsiniflora		15	0.03	
Euphorbia boophthona		10	0.01	
Hakea lorea subsp. lorea		300	0.2	
Portulaca oleracea		5	0.05	
Ptilotus obovatus var. obovatus		50	0.5	
Senna artemisioides subsp. oligophylla		40	0.01	
Solanum lasiophyllum		30	0.05	
Sporobolus australasicus		40	0.01	
Stylobasium spathulatum		50	0.5	
Trianthema triquetra		5	0.05	
Triodia basedowii		130	20	





Plot:	C016	Camera	Chris	
Date:	17-Apr	Photo #	694-695	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	727331	Outcrop:		
NW Northing:	7504430	Outcrop Type:		
SE Easting:	727381	Litter cover (%)		
SE Northing:	7504380	Logs	Twigs	Leaves
Topography:	flat		2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	400	25
Disturbance:	medium	Lower	100	15
Condition:	good	Bare ground (%):	85	
Observations	heavy grazing from cat	tle		
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		300	20	
Acacia aneura		100	0.2	
Acacia sclerosperma subsp. sclerosperma		300	1	
Boerhavia coccinea		5	0.01	
Cenchrus ciliaris		80	10	
Cenchrus setiger		80	1	
Cleome viscosa		40	0.01	
Enneapogon polyphyllus		300	0.01	
Enneapogon polyphyllus		30	0.01	
Eulalia aurea Hakea lorea subsp. lorea		550	0.01	
Portulaca oleracea		400 5	0.01	
		30	0.05	
Pterocaulon sphaeranthoides Ptilotus exaltatus var. exaltatus		20	0.03	
Ptilotus obovatus var. obovatus		30	0.1	
Salsola australis		40	2	
Senna notabilis		20	0.01	
Solanum lasiophyllum		30	0.1	
Sporobolus australasicus		10	0.01	
Trianthema triquetra		10	0.01	





Plot:	C017	Camera	Chris	
Date:	18-Apr	Photo #	697-698	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	725016	Outcrop:		
NW Northing:	7507093	Outcrop Type:		
SE Easting:	725066	Litter cover (%)		
SE Northing:	7507043	Logs	Twigs	Leaves
Topography:	flat		2	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	10
Time since fire (yrs):	5	Mid	300	5
Disturbance:	low	Lower	120	20
Condition:	very good	Bare ground (%):	75	
Observations	some grazing from ca	ttle		
Species	•	Height (cm)	% AC	% DC
Acacia ?aneura		600	8	
Acacia ?synchronicia		250	44	
Acacia tetragonophylla		300	1	
Atriplex amnicola		80	5	
Boerhavia burbidgeana		5	0.01	
ů .		80	5	
S		80	0.1	
Chloris pectinata		15	0.01	
Chrysopogon fallax		120	0.05	
Cleome viscosa		30	0.01	
Dactyloctenium radulans		10	0.01	
Enchylaena tomentosa		60 30	0.05	
Eragrostis setifolia Eremophila forrestii ?subsp.	forrestii	50	0.1 0.05	
Eucalyptus victrix	101163111	600	2	
Maireana pyramidata		100	8	
Panicum laevinode		15	0.05	
Portulaca oleracea		5	0.01	
Ptilotus macrocephalus		20	0.01	
Ptilotus obovatus var. obovatus		50	0.05	
Rhagodia eremaea		80	0.05	
Salsola australis		20	0.01	
Sclerolaena cuneata		10	0.01	
Sclerolaena diacantha		20	0.05	
Senna glutinosa subsp. glutinosa		20	0.05	
Sporobolus australasicus		15	0.01	





Plot:	C018	Camera	Chris	
Date:	18-Apr	Photo #	700-701	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	725064	Outcrop:		
NW Northing:	7506361	Outcrop Type:		
SE Easting:	725114	Litter cover (%)		
SE Northing:	7506311	` ′	Twigo	Leaves
<u> </u>		Logs	Twigs	Leaves
Topography:	flat		5	5
Aspect:		STRATA	Ht (cm)	% Cove
Slope:		Upper		
Time since fire (yrs):	3	Mid		
Disturbance:	low	Lower	150	50
Condition:	excellent	Bare ground (%):	40	
Observations	some grazing from	cattle		
Species		Height (cm)	% AC	% DC
Abutilon otocarpum		30	0.01	
Abutilon trudgenii		40	0.05	
Acacia ?synchronicia		150	5	
Aristida holathera var. ho	olathera	30	1	
Aristida inaequiglumis		30	0.5	
Boerhavia coccinea		5	0.01	
Bonamia rosea		20	0.05	
Bulbostylis barbata		5	0.01	
Cenchrus ciliaris		70	2	
Chrysopogon fallax		130	0.05	
Cleome viscosa		30	0.01	
Corchorus sidoides subs	p. sidoides	30	5	
Corchorus sp.	•	30	0.5	
Corchorus walcottii		30	0.5	
Dysphania rhadinostachy	a subsp. <i>inflata</i>	15	0.01	
Eragrostis dielsii		5	0.02	
Eragrostis eriopoda		50	2	
Eremophila forrestii ?sub	-	60	0.01	
Eremophila forrestii subs	p. forrestii	75	0.02	
Eremophila longifolia		50	0.02	
Eriachne aristidea		30	0.05	
Euphorbia australis		5	0.05	
Goodenia microptera		15	0.01	
Gossypium australe		50	0.05	
Hibiscus sturtii var. platychlamys		40	0.5	
Iseilema eremaeum		15	0.01	
Maireana planifolia		20	0.05	
Maireana planifolia		60	0.05	1
Maireana sp.		20	0.01	
Perotis rara Pluchea ferdinandi-muell	ori	15 30	0.01	1
Pluchea ferdinandi-muell		45	0.5	
Pluchea rubelliflora		20	0.01	
Portulaca oleracea		5	0.01	
Pterocaulon sphaeranthoides		20	0.01	l

Species	Height (cm)	% AC	% DC
Ptilotus astrolasius	30	3	
Ptilotus calostachyus	60	0.01	
Ptilotus exaltatus var. exaltatus	70	0.1	
Ptilotus obovatus var. obovatus	30	0.5	
Ptilotus polystachyus	40	0.01	
Rhagodia eremaea	70	0.05	
Salsola australis	20	0.01	
Sclerolaena ?deserticola	20	0.05	
Sclerolaena costata	15	0.01	
Senna artemisioides subsp. helmsii	15	0.01	
Senna glutinosa subsp. x luerssenii	40	0.01	
Senna notabilis	20	0.01	
Sida echinocarpa	30	0.1	
Solanum lasiophyllum	60	1	
Sporobolus australasicus	15	0.5	
Stylobasium spathulatum	60	1	
Trianthema triquetra	5	0.01	
Tribulus hirsutus	5	0.01	
Tribulus macrocarpus	5	0.1	
Triodia basedowii	80	30	





Plot:	C019	Camera	Chris	
Date:	18-Apr	Photo #	703-704	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	sandy loam	
Zone:	50	Soil colour:	red brown	
	GDA		TCG BIOWII	
Datum:		Soil comments:		
NW Easting:	727995	Outcrop:		
NW Northing:	7500221	Outcrop Type:		
SE Easting:	728045	Litter cover (%)		
SE Northing:	7500171	Logs	Twigs	Leaves
Topography:	flat		2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	500	5
	1.			
Disturbance:	low	Lower	150	50
Condition:	excellent	Bare ground (%):	40	
Observations	Note: GPS recording Northing was 750221			respectively
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		200	0.2	
Acacia dictyophleba		500	2	
Acacia pachyacra		200	1	
Acacia tumida var. pilbarensis		500	1	
Aristida holathera var. holathera		30	0.1	
Bonamia rosea		30	2	
Bonamia rosea		40	2	
		30	2	
· · · · · · · · · · · · · · · · · · ·		30	2	
Cucumis maderaspatanus			0.01	
Cullen leucanthum		40	0.05	
Cymbopogon obtectus		130	0.01	
Dicrastylis cordifolia Dodonaea coriacea		30 40	0.01 0.05	
Enneapogon polyphyllus		30	0.05	
Eragrostis eriopoda		30	1	
Eriachne aristidea		20	0.05	
Euphorbia australis		10	0.01	
Gomphrena affinis subsp. pilbarens	is	20	0.01	
Hakea chordophylla		250	1	
Indigofera monophylla		40	1	
Iseilema eremaeum		10	0.01	
Ptilotus exaltatus var. exaltatus		30	0.01	
Ptilotus polystachyus		60	0.01	
		20	0.05	
Side cardiophylla		40 50	1	
Sida cardiophylla Streptoglossa sp.		5	0.01	
Trianthema pilosa		5	0.05	
Tribulus macrocarpus		10	0.05	
Trichodesma zeylanicum var. zeylanicum		30	0.01	
Triodia basedowii		80	40	





Plot:	C020	Camera	Chris	
Date:	18-Apr	Photo #	706-707	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	735964	Outcrop:		
NW Northing:	7495655	Outcrop Type:		
SE Easting:	736014	Litter cover (%)		
SE Northing:	7495605	Logs	Twigs	Leaves
Topography:	flat	1	2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	5
Time since fire (yrs):	5	Mid	350	5
Disturbance:	medium	Lower	80	40
Condition:	good	Bare ground (%):	50	
Observations	Some grazing from cattle			
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		250	0.5	
Acacia citrinoviridis		250	0.5	
Acacia dictyophleba	Acacia dictyophleba		0.05	
Acacia inaequilatera		350	4	
Acacia pruinocarpa		600	2	
Acacia sclerosperma subsp	. sclerosperma	200	0.1	
Acacia sericophylla		170	0.1	
Atalaya hemiglauca		600	0.1	
Capparis spinosa		30	0.01	
		80	1	
5		80 700	38	
,	,		1	
Hakea lorea subsp. lorea		600	2	
Rhagodia eremaea Vachellia farnesiana		60 200	0.5 0.1	
vacnellia larriesiaria		200	U. I	





Plot:	C021	Camera	Chris		
Date:	18-Apr	Photo #	709-710		
Date revisit:	Jul-11	Camera revisit	bronwyn		
Initials:	mf ch	Photo # revisit			
Initials revisit:	CH/BN	Soils	loam		
Zone:	50	Soil colour:	red brown		
Datum:	GDA	Soil comments:			
NW Easting:	738081	Outcrop:			
NW Northing:	7495140	Outcrop Type:			
SE Easting:	738131	Litter cover (%)			
SE Northing:	7495090	Logs	Twigs	Leaves	
Topography:	flat	1	2	18	
Aspect:		STRATA	Ht (cm)	% Cover	
Slope:		Upper	1000	5	
Time since fire (yrs):	5	Mid	500	5	
Disturbance:	medium	Lower	100	30	
Condition:	good	Bare ground (%):	50		
Observations	Some grazing from cattle				
Species Height (cm)		% AC	% DC		
Acacia ?aneura		150	0.1		
Acacia citrinoviridis		1000	4		
Acacia inaequilatera		400	2		
Acacia synchronicia		500	3		
Atalaya hemiglauca		500	0.5		
Cenchrus ciliaris		80	20		
Cenchrus setiger		80	10		
Corymbia hamersleyana		700	0.5		
Hakea lorea subsp. lorea		500	0.5		
Rhagodia eremaea		70	0.05		
Salsola australis		30	0.01		





Date CO/22	le.	Tooss	10	lou :	
Date revisit: Jul-11	Plot:	C022	Camera	Chris	
Initials:					
Initials revisit: CH/BN Soils Clay loam Ted brown Datum: GDA Soil comments: NW Easting: 74/994 Outcrop: NW Northing: 74/994 Outcrop: NW Northing: 74/99233 Outcrop Type: SE Easting: 74/1044 Litter cover (%) SE Northing: 74/95183 Logs Twigs Leaves Topography: flat STRATA Ht (cm) % Cover Slope: Upper 1000 30 30 5 5 5 5 5 5 5 5 5				bronwyn	
Zone: 50 Soil colour: red brown				ļ	
Datum: GDA Soil comments: NW Easting: 740994 Outcrop: NW Horthing: 7495233 Outcrop: SE Easting: 741044 Litter cover (%) SE Northing: 7495183 Logs Twigs Leaves Topography: flat 3 5 10 Northing: 1000 30 Time since fire (yrs): 5 Mild 500 5 Since fire (yrs): 70 Since fire (yrs):	Initials revisit:			•	
NW Easting: 740994	Zone:	50	Soil colour:	red brown	
NW Northing: 7495233 Outcrop Type: SE Easting: 741044 Litter cover (%) SE Easting: 741044 Litter cover (%) SE Northing: 7495183 Logs Twigs Leaves Topography: flat 3 5 10 Aspect: STRATA Ht (cm) % Cover Slope: Upper 1000 30 Time since fire (yrs): 5 Mild 500 5 Siturbance: low Lower 140 15 Society Topography: Topogra	Datum:	GDA	Soil comments:		
SE Easting: 741044	NW Easting:	740994	Outcrop:		
SE Northing: 7495183	NW Northing:	7495233	Outcrop Type:		
SE Northing: 7495183	SE Easting:	741044	Litter cover (%)		
Topography: flat				Twias	Leaves
STRATA					
Slope: Upper 1000 30		ind.			
Time since fire (yrs): 5				` ′	
Disturbance: Iow		5			
Species	15				
Species Height (cm) % AC % DC					10
Species		CVCCHCHI	pare ground (%):	10	
Abutilon lepiclum			Llaight /ams\	10/ A.C.	% DC
Acacia ?aneura 1000 30 Acacia ?synchronicia 250 2 Acacia pruinocarpa 300 0.1 Aristida inaequiglumis 70 0.01 Bidens bipinnata 10 0.05 Blumea tenella 5 0.01 Cenchrus ciliaris 80 1 Chloris pectinata 30 1 Chloris pumilio 70 0.01 D.01 2.0 0.01 Dactyloculus aliare 0.01 0.01 Engustic serial 10	·				78 DC
Acacia ?synchronicia 250 2 Acacia pruinocarpa 300 0.1 Aristida inaequiglumis 70 0.01 Bidens bipinnata 10 0.05 Bilumea tenella 5 0.01 Cenchrus ciliaris 80 1 Chloris pectinata 30 0.5 Corchorus tridens 5 0.05 Cucumis maderaspatanus 0.05 0.05 Cucumis maderaspatanus 0.01 0.01 Dactyloctenium radulans 15 0.01 Dactyloctenium radulans 15 0.01 Dactyloctenium radulans 15 0.01 Eragrostis tenellud 20 0.01 Eragrostis tenellula 30 0.01	•				
Acacia pruinocarpa 300 0.1 Aristida inaequiglumis 70 0.01 Bidens bipinnata 10 0.05 Blumea tenella 5 0.01 Cenchrus ciliaris 80 1 Chloris pettinata 30 1 Chloris pumilio 70 0.01 Chysopogon fallax 130 0.5 Corchorus tridens 5 0.05 Cucumis maderaspatanus 0.01 0.01 Dactyloctenium radulans 15 0.01 Digitaria ctenantha 20 0.01 Enneapogon polyphyllus 20 0.01 Eragrostis setifolia 40 5 Eragrostis tenellula 30 0.01 Eremophila forrestii ?subsp. forrestii 60 0.1 Eremophila glabra 30 0.1 Erolvulus alsinoides var. villosicalyx 5 0.01 Ipomoea muelleri 0.01 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 20					
Aristida inaequiglumis 70 0.01 Bidens bipinnata 10 0.05 Blumea tenella 5 0.01 Cenchrus ciliaris 80 1 Chloris pettinata 30 1 Chloris pettinata 30 1 Chloris pumilio 70 0.01 Chysopogon fallax 130 0.5 Corchorus tridens 5 0.05 Coucumis maderaspatanus 0.01 0.01 Dactyloctenium radulans 15 0.01 Digitaria ctenantha 20 0.01 Eneapogon polyphyllus 20 0.01 Eragrostis setifolia 40 5 Eragrostis tenellula 30 0.01 Eremophila forrestii ?subsp. forrestii 60 0.1 Eremophila glabra 30 0.1 Evolvulus alsinoides var. villosicalyx 5 0.01 Ipomoea muelleri 0.01 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 20	Acacia ?synchronicia		250	2	
Bidens bipinnata	Acacia pruinocarpa		300	0.1	
Blumea tenella	Aristida inaequiglumis		70	0.01	
Cenchrus ciliaris 80 1 Chloris pectinata 30 1 Chloris pumilio 70 0.01 Chrysopogon fallax 130 0.5 Corchorus tridens 5 0.05 Cucumis maderaspatanus 0.01 0.01 Dactyloctenium radulans 15 0.01 Digitaria ctenantha 20 0.01 Enneapogon polyphyllus 20 0.01 Eragrostis setifolia 40 5 Eragrostis tenellula 30 0.01 Eremophila forrestii ?subsp. forrestii 60 0.1 Eremophila glabra 30 0.1 Evolvulus alsinoides var. villosicalyx 5 0.01 Ipomoea muelleri 0.01 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 20 0.1 Perotis rara 10 0.05 Poaceae sp. 40 0.01 Portulaca oleracea 5 0.01 Psydrax latifolia 500 <td< td=""><td>Bidens bipinnata</td><td></td><td>10</td><td>0.05</td><td></td></td<>	Bidens bipinnata		10	0.05	
Chloris pectinata 30 1 Chloris pumilio 70 0.01 Chrysopogon fallax 130 0.5 Corchorus tridens 5 0.05 Cucumis maderaspatanus 0.01 0.01 Dactyloctenium radulans 15 0.01 Digitaria ctenantha 20 0.01 Enneapogon polyphyllus 20 0.01 Eragrostis setifolia 40 5 Eragrostis tenellula 30 0.01 Eremophila forrestii ?subsp. forrestii 60 0.1 Eremophila glabra 30 0.1 Evolvulus alsinoides var. villosicalyx 5 0.01 Ipomoea muelleri 0.01 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 20 0.1 Perotis rara 10 0.05 Poaceae sp. 40 0.01 Portulaca oleracea 5 0.01 Psydrax latifolia 500 3 Pterocaulon sp. 5 0.	Blumea tenella		5	0.01	
Chloris pumilio 70 0.01 Chrysopogon fallax 130 0.5 Corchorus tridens 5 0.05 Cucumis maderaspatanus 0.01 0.01 Dactyloctenium radulans 15 0.01 Digitaria ctenantha 20 0.01 Enneapogon polyphyllus 20 0.01 Enagrostis setifolia 40 5 Eragrostis tenellula 30 0.01 Eremophila forrestii ?subsp. forrestii 60 0.1 Eremophila glabra 30 0.1 Erolvulus alsinoides var. villosicalyx 5 0.01 Ipomoea muelleri 0.01 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 20 0.1 Perotis rara 10 0.05 Poaceae sp. 40 0.01 Portulaca oleracea 5 0.01 Psydrax latifolia 500 3 Pterocaulon sp. 5 0.01 Ptilotus obovatus var. obovatus 30 <td>Cenchrus ciliaris</td> <td></td> <td></td> <td>1</td> <td></td>	Cenchrus ciliaris			1	
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Eragrostis tenellula 30 0.01 Eremophila forrestii ?subsp. forrestii 60 0.1 Eremophila glabra 30 0.1 Evolvulus alsinoides var. villosicalyx 5 0.01 Ipomoea muelleri 0.01 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 20 0.1 Perotis rara 10 0.05 Poaceae sp. 40 0.01 Portulaca oleracea 5 0.01 Psydrax latifolia 500 3 Pterocaulon sp. 5 0.01 Ptilotus obovatus var. obovatus 30 0.5 Senna artemisioides subsp. helmsii 180 0.5 Senna notabilis 15 0.01 Sida platycalyx 5 0.01 Solanum lasiophyllum 40 0.05 Spermacoce brachystema 20 0.01					
Eremophila forrestii ?subsp. forrestii 60 0.1 Eremophila glabra 30 0.1 Evolvulus alsinoides var. villosicalyx 5 0.01 Ipomoea muelleri 0.01 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 20 0.1 Perotis rara 10 0.05 Poaceae sp. 40 0.01 Portulaca oleracea 5 0.01 Psydrax latifolia 500 3 Pterocaulon sp. 5 0.01 Ptilotus obovatus var. obovatus 30 0.5 Senna artemisioides subsp. helmsii 180 0.5 Senna notabilis 15 0.01 Sida platycalyx 5 0.01 Solanum lasiophyllum 40 0.05 Spermacoce brachystema 20 0.01					
Eremophila glabra 30 0.1 Evolvulus alsinoides var. villosicalyx 5 0.01 Ipomoea muelleri 0.01 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 20 0.1 Perotis rara 10 0.05 Poaceae sp. 40 0.01 Portulaca oleracea 5 0.01 Psydrax latifolia 500 3 Pterocaulon sp. 5 0.01 Ptilotus obovatus var. obovatus 30 0.5 Senna artemisioides subsp. helmsii 180 0.5 Senna notabilis 15 0.01 Sida platycalyx 5 0.01 Solanum lasiophyllum 40 0.05 Spermacoce brachystema 20 0.01					
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Pterocaulon sp. 5 0.01 Ptilotus obovatus var. obovatus 30 0.5 Senna artemisioides subsp. helmsii 180 0.5 Senna notabilis 15 0.01 Sida platycalyx 5 0.01 Solanum lasiophyllum 40 0.05 Spermacoce brachystema 20 0.01					
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Senna artemisioides subsp. helmsii 180 0.5 Senna notabilis 15 0.01 Sida platycalyx 5 0.01 Solanum lasiophyllum 40 0.05 Spermacoce brachystema 20 0.01		tus			
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Sida platycalyx 5 0.01 Solanum lasiophyllum 40 0.05 Spermacoce brachystema 20 0.01		-			
Solanum lasiophyllum400.05Spermacoce brachystema200.01					
,			40		
Sporobolus australasicus 15 0.05					
	Sporobolus australasicus		15	0.05	

Stenopetalum nutans	10	0.01	
Triodia epactia	80	5	





Plot:	C023	Camera	Chris	
Date:	19-Apr	Photo #	715-716	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit	. 47.	
Initials revisit:	N/A	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA		TCG DIOWIT	
	744382	Soil comments:		
NW Easting:		Outcrop:		
NW Northing:	7504439	Outcrop Type:		
SE Easting:	744432	Litter cover (%)		Г
SE Northing:	7504389	Logs	Twigs	Leaves
Topography:	flat	5	15	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	50
Time since fire (yrs):	5	Mid	350	5
Disturbance:	low	Lower	130	5
Condition:	excellent	Bare ground (%):	65	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon lepidum		20	0.02	
Acacia ?aneura		1000	45	
Acacia ?aneura		700	1	
Acacia ?synchronicia		350	1	
Acacia ancistrocarpa		300	0.1	
Acacia tetragonophylla		800	0.5	
Acacia xiphophylla		1000	2	
Bidens bipinnata		10	0.01	
Blumea tenella		5	0.01	
Cenchrus ciliaris		50	1	
Cheilanthes sieberi subsp. s	sieberi	10	0.1	
Chrysopogon fallax		130	1	
Corchorus tridens		15	0.05	
Cucumis maderaspatanus			0.01	
Dactyloctenium radulans		10	0.01	
Enteropogon ramosus		20	0.01	
Eremophila forrestii ?subsp	. forrestii	60	0.1	
Eremophila glabra	eure .	20	0.05	
Eremophila latrobei subsp.	filiformis	180	1	
Eriachne mucronata	ilhoronois	40	1	
Gomphrena affinis subsp. p	IIIDAI EI ISIS	15	0.05	
Ipomoea muelleri Maireana planifolia		40	0.5	
Perotis rara		10	0.1	
Polycarpaea corymbosa		5	0.01	
Psydrax latifolia		800	2	
Ptilotus obovatus var. obovatus		60	0.2	
Rhagodia eremaea		130	0.1	
Senna artemisioides subsp. oligophylla		15	0.01	
Senna glutinosa subsp. x lu		170	0.01	
Sida sp. verrucose glands (10	0.01	
Spermacoce brachystema		10	0.01	
Sporobolus australasicus		15	0.2	
Stenopetalum nutans		10	0.01	





Date:	Plot:	C024	Camera	Chris	
Initials:	Date:	19-Apr	Photo #	722-723	
Initials revisit: N/A Soils Clay loam Zone: 50 Soil colour: red brown Pothole clays present	Date revisit:	N/A	Camera revisit	N/A	
Zone: 50 Soil colour: red brown Datum: GDA Soil comments: Pothole clays present	Initials:	mf ch	Photo # revisit		
Datum: GDA Soil comments: Pothole clays present NW Easting: 743034 Outcrop:	Initials revisit:	N/A	Soils	clay loam	
NW Easting: 743034	Zone:	50	Soil colour:	red brown	
NW Northing: 7504737 Outcrop Type: SE Easting: 743084 Litter cover (%) SE Northing: 7504687 Logs Twigs Leaves Topography: flat 2 10 5 Aspect: STRATA Ht (cm) % Cover Slope: Upper 1000 35 Time since fire (yrs): 5 Mid 500 5 Disturbance: low Lower 130 5 Condition: excellent Bare ground (%): 80 Observations Bare ground (%): 80 DC Abutilon lepidum 30 0.01 Acacia ?aneura 1000 35 Acacia ?aneura 1000 35 Acacia ?aneura 1000 3 Acacia ?aneura 1000 3 Acacia ?aneura 1000 3 Aristida latifolia 130 0.2	Datum:	GDA	Soil comments:	Pothole clays	s present
SE Easting: 743084 Litter cover (%) SE Northing: 7504687 Logs Twigs Leaves Topography: flat 2 10 5 Aspect: STRATA Ht (cm) % Cover Slope: Upper 1000 35 Time since fire (yrs): 5 Mid 500 5 Disturbance: low Lower 130 5 Condition: excellent Bare ground (%): 80 Observations Bare ground (%): 80 Condition: excellent Bare ground (%): 80 Observations Bare ground (%): 80 Abution lepidum 30 0.01 Acacia sexpecies Height (cm) % AC % DC Abution lepidum 30 0.01 Acacia sexpecies 400 35 Acacia sexpecies 400 35 Acacia sexpecies 400 35 Acacia sexpecies 400 35 Acacia sexpecies 400 400 400	NW Easting:	743034	Outcrop:		
SE Northing: 7504687 Logs Twigs Leaves	NW Northing:	7504737	Outcrop Type:		
Topography: flat 2 10 5 Aspect: STRATA Ht (cm) % Cover Slope: Upper 1000 35 Time since fire (yrs): 5 Mid 500 5 Disturbance: low Lower 130 5 Condition: excellent Bare ground (%): 80 Observations Height (cm) % AC % DC Abutilon lepidum 30 0.01 Acacia ?suchronicia 400 3 Acacia ?suchronicia 400 1	SE Easting:	743084	Litter cover (%)		
STRATA	SE Northing:	7504687	Logs	Twigs	Leaves
Slope: Upper 1000 35	Topography:	flat	2	10	5
Time since fire (yrs): 5 Mid 500 5 Disturbance: low Lower 130 5 Condition: excellent Bare ground (%): 80 Observations **Bare ground (%): 80 **Double ground (%): *	Aspect:		STRATA	Ht (cm)	% Cover
Disturbance: low Lower 130 5 Condition: excellent Bare ground (%): 80 Observations Species Height (cm) % AC % DC Abutilon lepidum 30 0.01 35 Acacia ?aneura 1000 35 35 Acacia ?synchronicia 400 3 35 Acacia tetragonophylla 350 0.5 30 Aristicla latifolia 130 0.2 2 Cenchrus ciliaris 60 0.1 1 Chrysopogon fallax 120 1 1 Cleome viscosa 30 0.05 1 Eragrostis setifolia 30 1 1 Eremophila glabra 20 0.05 1 Eriachne flaccida 30 2 1 Ipomoea muelleri 0.05 0.05 0.05 Maireana planifolia 50 0.05 0.01 Psydrax latifolia 400	Slope:		Upper	1000	35
Condition: excellent Bare ground (%): 80 Observations Species Height (cm) % AC % DC Abutilon lepidum 30 0.01	Time since fire (yrs):	5	Mid	500	5
Observations Height (cm) % AC % DC Abutilon lepidum 30 0.01 Acacia ?aneura 1000 35 Acacia ?aneura 400 3 Acacia !atiragonophylla 350 0.5 Aristida latifolia 130 0.2 Cenchrus ciliaris 60 0.1 Chrysopogon fallax 120 1 1 Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Image: Company in the com	Disturbance:	low	Lower	130	5
Species Height (cm) % AC % DC Abutilon lepidum 30 0.01	Condition:	excellent	Bare ground (%):	80	
Abutilon lepidum 30 0.01 Acacia ?aneura 1000 35 Acacia ?synchronicia 400 3 Acacia tetragonophylla 350 0.5 Aristida latifolia 130 0.2 Cenchrus ciliaris 60 0.1 Chrysopogon fallax 120 1 Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	Observations				
Acacia ?aneura 1000 35 Acacia ?synchronicia 400 3 Acacia tetragonophylla 350 0.5 Aristida latifolia 130 0.2 Cenchrus ciliaris 60 0.1 Chrysopogon fallax 120 1 Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	Species		Height (cm)	% AC	% DC
Acacia ?synchronicia 400 3 Acacia tetragonophylla 350 0.5 Aristida latifolia 130 0.2 Cenchrus ciliaris 60 0.1 Chrysopogon fallax 120 1 Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	Abutilon lepidum		30	0.01	
Acacia tetragonophylla 350 0.5 Aristida latifolia 130 0.2 Cenchrus ciliaris 60 0.1 Chrysopogon fallax 120 1 Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	Acacia ?aneura		1000	35	
Aristida latifolia 130 0.2 Cenchrus ciliaris 60 0.1 Chrysopogon fallax 120 1 Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	Acacia ?synchronicia		400	3	
Cenchrus ciliaris 60 0.1 Chrysopogon fallax 120 1 Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	Acacia tetragonophylla		350	0.5	
Chrysopogon fallax 120 1 Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	Aristida latifolia		130	0.2	
Cleome viscosa 30 0.05 Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	Cenchrus ciliaris			0.1	
Eragrostis setifolia 30 1 Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01				-	
Eremophila glabra 20 0.05 Eriachne flaccida 30 2 Ipomoea muelleri 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01					
Eriachne flaccida 30 2 Ipomoea muelleri 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	<u> </u>				
Ipomoea muelleri 0.05 Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01					
Maireana planifolia 50 0.05 Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01			30		
Malvastrum americanum 20 0.01 Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01			150		
Psydrax latifolia 400 1 Ptilotus obovatus var. obovatus 50 0.2 Rhagodia eremaea 50 0.1 Salsola australis 40 0.05 Senna artemisioides subsp. oligophylla 160 0.5 Sida fibulifera 15 0.01	·				
Ptilotus obovatus var. obovatus500.2Rhagodia eremaea500.1Salsola australis400.05Senna artemisioides subsp. oligophylla1600.5Sida fibulifera150.01					
Rhagodia eremaea500.1Salsola australis400.05Senna artemisioides subsp. oligophylla1600.5Sida fibulifera150.01				-	
Salsola australis400.05Senna artemisioides subsp. oligophylla1600.5Sida fibulifera150.01					
Senna artemisioides subsp. oligophylla1600.5Sida fibulifera150.01	<u> </u>				
Sida fibulifera 15 0.01					
		3,,,			
1:5	Sporobolus australasicus		10	0.05	





Plot:	C025	Camera	Chris	
Date:	19-Apr	Photo #	725-726	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit	IN/A	
Initials revisit:	N/A	Soils	clay	
			red brown	
Zone:	50	Soil colour:		
Datum:	GDA	Soil comments:	Pothole clays	present
NW Easting:	743530	Outcrop:		
NW Northing:	7506347	Outcrop Type:		
SE Easting:	743580	Litter cover (%)		_
SE Northing:	7506297	Logs	Twigs	Leaves
Topography:	flat		1	4
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	40
Time since fire (yrs):	5	Mid		
Disturbance:	low	Lower	150	60
Condition:	excellent	Bare ground (%):	35	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon lepidum		15	0.01	
Abutilon macrum		40	0.1	
Acacia ?aneura		800	18	
Acacia tetragonophylla		500	2	
Alternanthera nodiflora		15	0.01	
Bidens bipinnata		20	0.05	
Blumea tenella		15	5	
Boerhavia coccinea		5	0.01	
Cenchrus ciliaris		70	5	
Centipeda minima subsp. ma	crocephala	10	0.05	
Chrysopogon fallax		130	5	
Cleome viscosa		40	0.5	
Cleome viscosa		5	0.01	
Convolvulus clementii			0.01	
Corchorus tridens		10	10	
Corymbia sp.		700	20	
Cucumis maderaspatanus			0.5	
Cyperus iria		5	0.05	
Dactyloctenium radulans		10	0.05	
Dysphania rhadinostachya		5	0.01	
Enneapogon polyphyllus		30	0.1	
Enteropogon ramosus Eragrostis setifolia		15 30	0.05	
Eragrostis setilolia Eragrostis tenellula		20	0.1	
Eragrostis terielidia Eremophila glabra		20	0.5	
Eriachne benthamii		20	8	
Eulalia aurea		10	0.01	
Euphorbia ?alsiniflora		5	0.01	
Euphorbia boophthona		5	0.01	
Euphorbia tannensis subsp. 6		15	0.02	
Evolvulus alsinoides var. villo	sicalyx	15	0.05	
Fimbristylis microcarya	,	10	5	
Gomphrena affinis subsp. pili	parensis	30	0.1	
Goodenia muelleriana		5	0.01	
Goodenia nuda		20	0.05	

Species	Height (cm)	% AC	% DC
Ipomoea muelleri		2	
Ipomoea polymorpha	10	0.01	
Iseilema eremaeum	15	0.01	
Josephinia eugeniae	15	0.1	
Malvastrum americanum	30	10	
Marsilea hirsuta	10	0.01	
Nicotiana occidentalis subsp. obliqua	40	0.5	
Peplidium sp.C Evol. Fl. Fauna Arid Aust (N.T. Bu	ırbiq 5	0.01	
Perotis rara	10	0.05	
Poaceae sp.	15	0.01	
Polycarpaea corymbosa	10	0.01	
Psydrax latifolia	500	1	
Pterocaulon sp.	15	0.01	
Ptilotus gomphrenoides	15	0.01	
Ptilotus macrocephalus	20	0.01	
Ptilotus obovatus var. obovatus	50	0.5	
Rhagodia eremaea	80	0.1	
Rhynchosia minima	20	0.05	
Senna artemisioides subsp. oligophylla	30	0.05	
Sida fibulifera	20	0.01	
Spermacoce brachystema	10	0.01	
Sporobolus australasicus	15	5	
Streptoglossa sp.	15	0.5	
Tragus australianus	20	0.01	
Wahlenbergia tumidifructa	10	0.01	





Plot:	C026	Camera	Chris	
Date:	20-Apr	Photo #	738-739	
Date revisit:	Jul-11	camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	,	
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	Loam on bar	nks with clay
NW Easting:	740661	Outcrop:		nto min olay
NW Northing:	7499619	Outcrop Type:		
SE Easting:	740711	Litter cover (%)		
SE Northing:	7499569	1 1	Twigs	Leaves
Topography:	drainage line	Logs	Twigs	8
				Ī
Aspect: Slope:	north south 5 degree banks	STRATA	Ht (cm)	% Cover 10
Time since fire (yrs):	<5	Upper Mid	400	5
Disturbance:	<pre>medium</pre>	Lower	150	40
Condition:	very good	Bare ground (%):	50	40
Observations	some grazing from ca		30	
Species	30me grazing nom ca	Height (cm)	% AC	% DC
Acacia ?aneura		800	2	
Acacia ?synchronicia		200	0.5	
Acacia dictyophleba		400	1	
Acacia dictyophileba Acacia pruinocarpa		700	0.5	
Acacia tetragonophylla		400	1	
Amyema fitzgeraldii		400	0.1	
Atalaya hemiglauca		80	0.1	
Boerhavia burbidgeana		5	0.01	
Boerhavia coccinea		5	0.02	
Cenchrus ciliaris		80	35	
Chloris pectinata		30	0.1	
Cleome viscosa		40	0.05	
Corchorus tridens		5	1	
Corymbia hamersleyana		1000	5	
Ehretia saligna var. saligna	a	700	0.5	
Malvastrum americanum		40	1	
Portulaca oleracea			0.01	
Salsola australis		30	0.1	
Sclerolaena cornishiana		15 20	0.01	
Senna notabilis Sporobolus australasicus		15	0.1	
Tephrosia rosea ? var. clementii		5	0.03	
Themeda triandra		150	1	
Tribulus hirsutus		5	0.01	
Triodia epactia		80	3	
Triodia longiceps		60	0.1	
Vachellia farnesiana		400	3	





Plot:	C027	Camera	Chris	
Date:	20-Apr	Photo #	745-746	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	Loam on bar	ks with clay
NW Easting:	740084	Outcrop:		
NW Northing:	7498038	Outcrop Type:		
SE Easting:	740134	Litter cover (%)		
SE Northing:	7497988	Logs	Twigs	Leaves
Topography:	wide drainage line	2		8
Aspect:	northwest southeast	STRATA	Ht (cm)	% Cover
Slope:	>5 degree banks	Upper	1200	5
Time since fire (yrs):	<5	Mid		
Disturbance:	medium	Lower	180	35
Condition:	very good	Bare ground (%):	55	
Observations	some grazing from cattle			
Species	•	Height (cm)	% AC	% DC
Acacia ?aneura		800	0.5	
Acacia ?synchronicia		200	0.5	
Acacia citrinoviridis		1200	3	
Acacia dictyophleba		160	0.5	
Acacia inaequilatera		30	0.05	
Acacia pruinocarpa		800	1	
Acacia tetragonophylla		50	0.1	
Atalaya hemiglauca		250	0.1	
Boerhavia burbidgeana		5	0.1	
Boerhavia coccinea			0.01	
Cenchrus ciliaris		80	20	
Cenchrus setiger		80	1	
Chrysopogon fallax		150	0.2	
Cleome viscosa		30	0.01	
Corchorus tridens		5	0.05	
Eragrostis eriopoda		30	0.01	
Gomphrena affinis subsp. pilbarensis		10	0.01	
Hakea lorea subsp. lorea		800	0.5	
Polycarpaea corymbosa		10	0.01	
Salsola australis			0.01	
Sporobolus australasicus			0.01	
Triodia epactia		80	15	





Plot:	C028	Camera	Chris	
Date:	20-Apr	Photo #	748-749	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	Tod brown	
NW Easting:	741633			
NW Northing:	741633	Outcrop: Outcrop Type:		
SE Easting:	741683	Litter cover (%)	+	Π -
SE Northing:	7498317	Logs	Twigs	Leaves
Topography:	flat		3	7
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	800	10
Time since fire (yrs):	<5	Mid	500	5
Disturbance:	low	Lower	150	5
Condition:	excellent	Bare ground (%):	85	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?aneura		800	8	
Acacia ?synchronicia		400	2	
Acacia pruinocarpa		700	2	
Acacia tetragonophylla		500	1	
Boerhavia burbidgeana		5	0.01	
Cenchrus ciliaris		80	1	
Cheilanthes sieberi subsp. s	sieberi	5	0.01	
Chrysopogon fallax		150	0.5	
Cleome viscosa		40	0.01	
Corymbia hamersleyana		200	0.1	
Cucumis maderaspatanus			0.01	
Dactyloctenium radulans		10	0.01	
Enneapogon polyphyllus		30	0.05	
Eragrostis setifolia		20	0.05	
Eremophila glabra		30	2	
Eulalia aurea		20	0.01	
Gomphrena affinis subsp. p	ilbarensis	30	0.1	
Hakea lorea subsp. lorea		200	0.1	
Heliotropium heteranthum		5	0.01	
Indigofera georgei		20	0.01	
Perotis rara		10	0.01	
Polycarpaea corymbosa		5	0.01	
Portulaca pilosa		5 150	0.01	
Psydrax ?rigidula Psydrax latifolia		600	0.05	
Ptilotus helipteroides		1000	0.01	
Ptilotus obovatus var. obovatus		60	0.5	
Rhagodia eremaea		30	0.01	
Sclerolaena cornishiana			0.01	
Senna artemisioides subsp. helmsii		40	0.05	
Senna artemisioides subsp.	oligophylla	140	0.5	
Sida platycalyx		5	0.01	
Sporobolus australasicus		15	0.01	
Vachellia farnesiana		50	0.05	





Plot:	C029	Camera	Chris		
Date:	20-Apr	Photo #	751-752		
Date revisit:	Jul-11	Camera revisit	bronwyn		
Initials:	mf ch	Photo # revisit			
Initials revisit:	CH/BN	Soils	loam		
Zone:	50	Soil colour:	red brown		
Datum:	GDA	Soil comments:			
NW Easting:	739413	Outcrop:			
NW Northing:	7499967	Outcrop Type:			
SE Easting:	739463	Litter cover (%)			
SE Northing:	7499917	Logs	Twigs	Leaves	
Topography:	flat	1	5	15	
Aspect:		STRATA	Ht (cm)	% Cover	
Slope:		Upper	700	15	
Time since fire (yrs):	<5	Mid	230	15	
Disturbance:	medium	Lower	150	5	
Condition:	good	Bare ground (%):	80		
Observations	Heavy grazing from cattle.	water bore about 400m	ore about 400m to east.		
Species	Species Height (cm) % AC		% DC		
Acacia ?aneura		230	15		
Acacia ?aneura		800	15		
Acacia ?synchronicia		350	0.5		
Acacia tetragonophylla		300	0.1		
Boerhavia coccinea		5	0.05		
Cenchrus ciliaris		80	0.5		
Chrysopogon fallax		150	0.01		
Cleome viscosa		30	0.01		
Corchorus tridens		5	0.05		
Eragrostis setifolia		30	0.01		
Eremophila glabra		30	0.05		
Eremophila lanceolata Ipomoea muelleri			0.01 4		
Maireana villosa		20	0.01		
Portulaca oleracea		5	0.01		
Salsola australis			0.01		
Sclerolaena cornishiana			0.01		
Senna notabilis		20	0.5		
Sida platycalyx		5	0.01		
Solanum lasiophyllum		30	0.1		
Sporobolus australasicus		20	0.01		
Tribulus hirsutus			0.01		





Plot:	C030	Camera	Chris	
Date:	20-Apr	Photo #	754-755	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	clay	
Zone:	50	Soil colour:	red brown	
Datum:	GDA		TCG BIOWII	
		Soil comments:		
NW Easting:	741608	Outcrop:		
NW Northing:	7499365	Outcrop Type:		
SE Easting:	741658	Litter cover (%)		
SE Northing:	7499317	Logs	Twigs	Leaves
Topography:	flat	5	10	15
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	800	40
Time since fire (yrs):	<5	Mid	500	5
Disturbance:	low	Lower	160	20
Condition:	excellent	Bare ground (%):	65	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon lepidum		30	0.01	
Acacia ?aneura		800	40	
Acacia ?synchronicia		500	2	
Acacia tetragonophylla		400	0.5	
Asteraceae sp.		10	0.01	
'				
Bidens bipinnata Blumea tenella		15 5	0.01	
Boerhavia coccinea		5	0.01 0.01	
		5	0.01	
Bulbostylis barbata Cenchrus ciliaris		80	0.05	
Cheilanthes sieberi subsp. si	eheri	5	0.03	
Chrysopogon fallax	00011	150	10	
Cleome viscosa		30	0.01	
Corchorus tridens		10	5	
Cucumis maderaspatanus			0.01	
Dactyloctenium radulans		10	0.01	
Enneapogon polyphyllus		20	0.01	
Eragrostis crateriformis		20	0.01	
Eragrostis cumingii		30	0.05	
Eragrostis setifolia		20	0.01	
Eremophila forrestii ?subsp. i	forrestii	30	0.01	
Eremophila glabra		20	0.05	
Eriachne mucronata		20	0.01	
Eulalia aurea		30	0.01	
Evolvulus alsinoides var. villo	osicalyx		0.01	
Hakea lorea subsp. lorea		600	0.5	
Maireana planifolia		20	0.01	
Maireana villosa		20 5	0.01	
Polycarpaea corymbosa Psydrax latifolia		600	0.01 3	
Senna artemisioides subsp. I	helmsii	140	0.1	
Senna artemisioides subsp. of		180	0.5	
Senna notabilis	· U-17	15	0.01	
Sporobolus australasicus		15	0.01	
Stenopetalum nutans			0.01	





Plot:	C031	Camera	Chris	
Date:	20-Apr	Photo #	759-760	
date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	clay	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	some areas	of surface
NW Easting:	724003	Outcrop:		
NW Northing:	7500377	Outcrop Type:		
SE Easting:	724053	Litter cover (%)		
SE Northing:	7500327	Logs	Twigs	Leaves
Topography:	flat		3	7
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	<5	Mid	600	10
Disturbance:	low	Lower	150	10
Condition:	excellent	Bare ground (%):	80	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?aneura		600	8	
Acacia ?synchronicia		500	1	
Acacia pruinocarpa		600	0.5	
Cenchrus ciliaris		80	0.5	
Cenchrus setiger		80	0.01	
Chrysopogon fallax		150	0.05	
Cleome viscosa		40	0.01	
Eragrostis setifolia		20	0.01	
Eremophila glabra		20	2	
Eulalia aurea	illi-	30	0.01	
Gomphrena affinis subsp. Hakea lorea subsp. lorea	piibarensis	20	0.05	
Maireana villosa		200 20	0.1	
		10	0.01	
Portulaca oleracea	Perotis rara		0.01	
Senna artemisioides subs	p. <i>helmsii</i>	10 80	0.5	
Senna artemisioides subs	•	180	1	
Sida platycalyx		5	0.1	
Sporobolus australasicus		20	0.01	
Triodia epactia		120	0.5	





Plot:	C032	Camera	Chris	
Date:	20-Apr	Photo #	762-763	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	clay	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	some areas	of surface
NW Easting:	742383	Outcrop:		
NW Northing:	7501007	Outcrop Type:		
SE Easting:	742433	Litter cover (%)		
SE Northing:	7500957	Logs	Twigs	Leaves
Topography:	flat		2	13
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	5
Time since fire (yrs):	<5	Mid	180	2
Disturbance:	medium	Lower	100	30
Condition:	very good	Bare ground (%):	55	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		150	1	
Acacia pruinocarpa		600	1	
Cenchrus ciliaris		60	25	
Chrysopogon fallax		150	0.01	
Hakea lorea subsp. lorea	łakea lorea subsp. lorea		4	
Salsola australis		30	0.05	
Senna notabilis		20 80	0.01	
Triodia epactia	•		5	
Vachellia farnesiana		180	2	





Plot:	C033	Camera	Chris	
Date:	20-Apr	Photo #	765-766	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit	,,,	
Initials revisit:	N/A	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA		some areas of	of curfoco
	741565	Soil comments:	Some areas c	Surface
NW Easting:		Outcrop:		
NW Northing:	7501252	Outcrop Type:		
SE Easting:	741615	Litter cover (%)		_
SE Northing:	7501202	Logs	Twigs	Leaves
Topography:	flat	2		10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	800	50
Time since fire (yrs):	<5	Mid		
Disturbance:	medium	Lower	150	35
Condition:	very good	Bare ground (%):	45	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon lepidum		60	0.05	
Acacia ?aneura		800	48	
Acacia ?aneura		180	0.1	
Acacia tetragonophylla		300	0.1	
Bidens bipinnata		5	0.01	
Blumea tenella		5	0.2	
Cenchrus ciliaris		60	5	
Cheilanthes sieberi subsp.	sieberi	5	0.01	
Chloris pectinata		20	0.05	
Chrysopogon fallax		150	5	
Cleome viscosa		30	0.01	
Corchorus tridens		10	5	
Cucumis maderaspatanus			0.1	
Dactyloctenium radulans		10	0.01	
Enneapogon polyphyllus		20	0.05	
Eragrostis cumingii		15	0.01	
Evolvulus alsinoides var. vii	-	5	0.01	
Gomphrena affinis subsp. p	oilbarensis	20	0.05	
Ipomoea muelleri		5	5	
Malvastrum americanum		20	0.01	
Marsilea hirsuta		5	0.05	
Perotis rara Poaceae sp.		10	0.01	
<u>'</u>		15 15	0.01 0.01	
Polycarpaea corymbosa Portulaca oleracea		5	0.01	
Portulaca pilosa		10	0.01	
Psydrax latifolia		600	2	
Pterocaulon sp.		10	0.01	
Ptilotus obovatus var. obov	atus	50	0.1	
Senna notabilis		20	0.05	
Solanum lasiophyllum		20	0.05	
Spermacoce brachystema		20	0.05	
Sporobolus australasicus		10	0.1	
Streptoglossa sp.		5	0.01	





Plot:	C034	Camera	Chris	
Date:	14-Apr	Photo #	638-639	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit	D.Oy.:	
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
	GDA		Ted blown	
Datum:		Soil comments:		
NW Easting:	744618	Outcrop:		
NW Northing:	7492141	Outcrop Type:		
SE Easting:	744668	Litter cover (%)		
SE Northing:	7492091	Logs	Twigs	Leaves
Topography:	flat		5	20
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	700	40
Time since fire (yrs):	5	Mid		
Disturbance:	low	Lower	130	10
Condition:	excellent	Bare ground (%):	65	
Observations		1 5 (7		
Species	l .	Height (cm)	% AC	% DC
Abutilon lepidum		30	0.5	
Acacia ?aneura		700	30	
Acacia ?synchronicia		300	1	
Acacia ancistrocarpa		200	0.05	
Acacia ancistrocarpa Acacia pruinocarpa		700	5	
Bidens bipinnata		15	0.05	
Blumea tenella		10	0.03	
Boerhavia burbidgeana		5	0.01	
Boerhavia coccinea		5	0.01	
Bulbostylis barbata		5	0.01	
Cenchrus ciliaris		60	0.05	
Cheilanthes sieberi subsp.	sieberi	5	0.02	
Chloris pectinata		20	0.01	
Chrysopogon fallax		130	0.01	
Cleome viscosa		30	0.05	
Corchorus tridens		10	0.02	
Corymbia hamersleyana		700	1	
Cucumis maderaspatanus			0.02	
Dactyloctenium radulans		15	0.01	
Digitaria ctenantha		15	0.05	
Duperreya commixta			0.01	
Enneapogon polyphyllus		15	0.01	
Eragrostis cumingii		15	0.1	
Eragrostis setifolia		20	1	
Eremophila forrestii		50	0.05	
Eremophila lanceolata		30	0.05	
Eulalia aurea		50	0.02	
Evolvulus alsinoides var. villosicalyx		10	0.01	
Gomphrena affinis subsp. p	oilbarensis	20	0.01	
Goodenia nuda		20	0.01	
Ipomoea muelleri		5	0.01	
Iseilema membranaceum		10	0.01	
Maireana planifolia Malvastrum americanum		20 15	0.01	
Marsdenia australis		10	0.01	
เพลเจนซเแล สนจแสแจ			U.U I	l

Species	Height (cm)	% AC	% DC
Perotis rara	15	0.1	
Polycarpaea corymbosa	10	0.01	
Portulaca oleracea	5	0.01	
Psydrax latifolia	300	0.05	
Pterocaulon sphaeranthoides	5	0.01	
Ptilotus obovatus var. obovatus	40	0.01	
Sclerolaena cornishiana	20	0.01	
Senna artemisioides subsp. helmsii	50	0.05	
Senna notabilis	15	0.05	
Sida platycalyx	5	0.01	
Sida sp. verrucose glands (F.H. Mollemans 2423)	15	0.01	
Solanum lasiophyllum	30	0.01	
Spermacoce brachystema	15	0.01	
Sporobolus australasicus	10	0.1	
Triodia epactia	120	5	





Date	Plot:	C035	Camera	Chris	
Date revisit: Jul-11 Camera revisit Initials:			_		
Initials:					
Initials revisit:					
Zone: SD Soil colour: red brown				clav	
Datum: GDA Soil comments:				-	
NW Easting: 744055 Outcrop:				. CG DIOWII	
NW Northing: 7492161 Outcrop Type:					
SE Easting: 744105			•		
SE Northing: 7492111 Logs Twigs Leaves Topography: flat 1 1 1 1 1 1 1 1 1					
Topography: Illat					
STRATA			Logs		
Slope: Upper Upp		flat			
Time since fire (yrs): 5				Ht (cm)	% Cover
Disturbance: Iow					
Disservations Clay pan	Time since fire (yrs):	5	Mid	400	1
Clay pan Species Height (cm) % AC % DC	Disturbance:	low		130	3
Species	Condition:	excellent	Bare ground (%):	95	
Acacia ?aneura	Observations	Clay pan			
Acacia ?synchronicia	Species		Height (cm)	% AC	% DC
Aristida contorta 30 0.1 Boerhavia coccinea 5 0.1 Bulbostylis barbata 5 0.01 Chysopogon fallax 130 0.05 Cleome oxalidea 5 0.01 Cleome viscosa 30 0.02 Corchorus sidoides subsp. sidoides 15 0.01 Dactyloctenium radulans 15 0.01 Dysphania kalpari 10 0.01 Dysphania rhadinostachya 10 0.01 Erneapogon polyphyllus 20 0.01 Ermophia glabra 15 0.01 Eriachne pulchella subsp. pulchella 20 0.02 Euphorbia australis 1 0.01 Euphorbia biconvexa 10 0.01 Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.2 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.05 Petrois rara 10	Acacia ?aneura		200	0.1	
Boerhavia coccinea	Acacia ?synchronicia		400	1	
Boerhavia coccinea	Aristida contorta		30	0.1	
Bulbostylis barbata	Boerhavia coccinea				
Chrysopogon fallax 130 0.05 Cleome oxalidea 5 0.01 Cleome viscosa 30 0.02 Corchorus sidoides subsp. sidoides 15 0.01 Dactyloctenium radulans 15 0.01 Dysphania kalpari 10 0.01 Dysphania rhadinostachya 10 0.01 Enneapogon polyphyllus 20 0.01 Eremophila glabra 15 0.01 Eremophila glabra 15 0.01 Eremophila glabra 15 0.01 Erephorbia australis 1 0.01 Euphorbia biconvexa 10 0.01 Euphorbia biconvexa 10 0.01 Euphorbia biconvexa 10 0.01 Heliotropium heteranthum 5 0.2 Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 <					
Cleome oxalidea 5 0.01 Cleome viscosa 30 0.02 Corchorus sidoides subsp. sidoides 15 0.01 Dactyloctenium radulans 15 0.01 Dysphania kalpari 10 0.01 Dysphania rhadinostachya 10 0.01 Enneapogon polyphyllus 20 0.01 Eremophila glabra 15 0.01 Eremophila gubra 15 0.01 Eriachne pulchella subsp. pulchella 20 0.02 Euphorbia australis 1 0.01 Euphorbia biconvexa 10 0.01 Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.2 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Perotis rara 10 0.01 Perotulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 <td></td> <td></td> <td></td> <td></td> <td></td>					
Description					
Description	Cleome viscosa		30	0.02	
Dactyloctenium radulans	Corchorus sidoides subsp. sidoi	des			
Dysphania rhadinostachya	Dactyloctenium radulans		15	0.01	
Dysphania rhadinostachya 10 0.01 Enneapogon polyphyllus 20 0.01 Eremophila glabra 15 0.01 Eriachne pulchella subsp. pulchella 20 0.02 Euphorbia australis 1 0.01 Euphorbia biconvexa 10 0.01 Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Pillotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena comishiana 15 0.01 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna n			10	0.01	
Enneapogon polyphyllus 20 0.01 Eremophila glabra 15 0.01 Eriachne pulchella subsp. pulchella 20 0.02 Euphorbia australis 1 0.01 Euphorbia biconvexa 10 0.01 Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Pertulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna notabilis 15 0.01 Schanum lasiophyllum			10	0.01	
Eremophila glabra 15 0.01 Eriachne pulchella subsp. pulchella 20 0.02 Euphorbia australis 1 0.01 Euphorbia biconvexa 10 0.01 Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Peterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna notabilis 15 0.01 Scha platycalyx 5 0.5 Solanum lasiophyllum			20	0.01	
Eriachne pulchella subsp. pulchella 20 0.02 Euphorbia australis 1 0.01 Euphorbia biconvexa 10 0.01 Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Selrolaena cornishiana 15 0.01 Scelrolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna notabilis 15 0.01 Sida platycalyx 5 0.5 Solanum lasiophyllum 50 0.1 Sporobolus australasicus			15	0.01	
Euphorbia biconvexa 10 0.01 Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Petrocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena comishiana 15 0.01 Sclerolaena comishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna notabilis 15 0.5 Solanum lasiophyllum 5 0.5 Sporobolus australasicus 10 0.1 Streptoglossa sp. 5 0.01 Tragus australianus			20	0.02	
Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna notabilis 15 0.01 Sida platycalyx 5 0.5 Solanum lasiophyllum 50 0.1 Sporobolus australasicus 10 0.1 Streptoglossa sp. 5 0.01 Tragus australianus 10 0.01 Tribulus astrocarpus <t< td=""><td>Euphorbia australis</td><td></td><td>1</td><td>0.01</td><td></td></t<>	Euphorbia australis		1	0.01	
Goodenia muelleriana 5 0.2 Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna notabilis 15 0.01 Sida platycalyx 5 0.5 Solanum lasiophyllum 50 0.1 Sporobolus australasicus 10 0.1 Streptoglossa sp. 5 0.01 Tragus australianus 10 0.01 Tribulus astrocarpus <t< td=""><td>Euphorbia biconvexa</td><td></td><td>10</td><td>0.01</td><td></td></t<>	Euphorbia biconvexa		10	0.01	
Heliotropium heteranthum 5 0.01 Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna notabilis 15 0.01 Sida platycalyx 5 0.5 Solanum lasiophyllum 50 0.1 Sporobolus australasicus 10 0.1 Streptoglossa sp. 5 0.01 Tragus australianus 10 0.01 Tribulus astrocarpus 5 0.01				0.2	
Heliotropium inexplicitum 10 0.01 Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna notabilis 15 0.01 Sida platycalyx 5 0.5 Solanum lasiophyllum 50 0.1 Sporobolus australasicus 10 0.1 Streptoglossa sp. 5 0.01 Tragus australianus 10 0.01 Tribulus astrocarpus 5 0.01					
Indigofera colutea 5 0.01 Ipomoea muelleri 5 0.01 Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna notabilis 15 0.01 Sida platycalyx 5 0.5 Solanum lasiophyllum 50 0.1 Sporobolus australasicus 10 0.1 Streptoglossa sp. 5 0.01 Tragus australianus 10 0.01 Tribulus astrocarpus 5 0.01					
Ipomoea muelleri					
Perotis rara 10 0.01 Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna notabilis 15 0.01 Sida platycalyx 5 0.5 Solanum lasiophyllum 50 0.1 Sporobolus australasicus 10 0.1 Streptoglossa sp. 5 0.01 Tragus australianus 10 0.01 Tribulus astrocarpus 5 0.01					
Portulaca oleracea 5 0.05 Pterocaulon sphaeranthoides 15 0.01 Ptilotus aervoides 3 0.01 Rhynchosia minima 0.01 0.01 Salsola australis 15 0.01 Sclerolaena cornishiana 15 0.02 Senna artemisioides subsp. helmsii 40 0.05 Senna artemisioides subsp. oligophylla 40 0.05 Senna notabilis 15 0.01 Sida platycalyx 5 0.5 Solanum lasiophyllum 50 0.1 Sporobolus australasicus 10 0.1 Streptoglossa sp. 5 0.01 Tragus australianus 10 0.01 Tribulus astrocarpus 5 0.01	<u>'</u>				
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			10		
Triodia epactia 130 1	Tribulus astrocarpus				
	Triodia epactia		130	1	





Plot:	C036	Camera	Chris	
Date:	14-Apr	Photo #	630-631	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	bronwyn	
Initials.	CH/BN	Soils	loam sand	
		Soil colour:	red brown	
Zone:	50		red brown	
Datum:	GDA	Soil comments:		
NW Easting:	743466	Outcrop:		
NW Northing:	7492449	Outcrop Type:		
SE Easting:	743516	Litter cover (%)		
SE Northing:	7492399	Logs	Twigs	Leaves
Topography:	flat		2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	350	5
Disturbance:	low	Lower	130	60
Condition:	excellent	Bare ground (%):	30	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon lepidum		40	0.01	
Acacia ?aneura		70	0.05	
Acacia ?synchronicia		250	0.01	
Acacia ancistrocarpa		200	0.05	
Acacia citrinoviridis		250	0.05	
Acacia dictyophleba		350	3	
Acacia pachyacra		250	0.5	
Acacia pruinocarpa		300	0.1	
Acacia sclerosperma subsp. sc	elerosperma	300	1	
Aristida contorta		30	0.01	
Bulbostylis barbata		5	0.01	
Cenchrus ciliaris		50	0.05	
Chrysopogon fallax		130	0.05	ļ
Cleome viscosa Corchorus sidoides subsp. sido	oidos	30 15	0.01	
<u> </u>	nues	15	0.01	
Cucumis maderaspatanus Dactyloctenium radulans		15	0.01	<u> </u>
Enneapogon polyphyllus		10	0.01	
Eriachne aristidea		20	0.02	
Eriachne pulchella subsp. pulci	hella	15	0.02	
Euphorbia biconvexa		15	0.01	
Euphorbia tannensis subsp. ere	emophila	15	0.01	
Gossypium australe	<u> </u>	40	0.1	<u> </u>
Hakea lorea subsp. lorea		350	0.5	
Indigofera monophylla		20	0.01	
Perotis rara		10	0.01	
Phyllanthus erwinii		15 5	0.01	
	Portulaca oleracea		0.01	
Ptilotus helipteroides Ptilotus obovatus var. obovatus		15 30	0.01	
Ptilotus polystachyus		30	0.01	1
Sclerolaena cornishiana		15	0.01	
Senna artemisioides subsp. he		70	0.5	
Senna artemisioides subsp. olig	gophylla	120	0.1	
Senna notabilis Setaria verticillata		15 30	0.05	<u> </u>
Setaria verticiliata Sida platycalyx		15	0.01	
Sida platycalyx		15	0.01	
Solanum lasiophyllum		30	0.1	
Sporobolus australasicus		10	0.01	

Streptoglossa sp.	5	0.01	
Triodia epactia	120	58	





Plot:	C037	Camera	Chris	
Date:	14-Apr	Photo #	621-622	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	D.G.My.	
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
	GDA		red brown	
Datum:		Soil comments:		
NW Easting:	743051	Outcrop:		
NW Northing:	7489754	Outcrop Type:		
SE Easting:	743107	Litter cover (%)		_
SE Northing:	7489704	Logs	Twigs	Leaves
Topography:	flat		1	4
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	300	2
Disturbance:	low	Lower	120	50
Condition:	excellent	Bare ground (%):	45	
Observations		•		
Species	•	Height (cm)	% AC	% DC
Acacia ?synchronicia		300	0.5	
Acacia dictyophleba		300	0.5	
Acacia pruinocarpa		250	0.2	
Acacia sclerosperma subsp. s	clerosperma	300	1	
Aristida contorta	<u> </u>	15	0.01	
Boerhavia coccinea			0.05	
Bulbostylis barbata		15 5	0.05	
Cenchrus ciliaris		30	0.05	
Cleome viscosa		20	0.01	
Corchorus sidoides subsp. sid	loides	5	0.1	
Corchorus sidoides subsp. sid	loides	15	0.01	
Cucumis maderaspatanus			0.01	
Cullen leucanthum		130	0.01	
Dysphania rhadinostachya			0.01	
Eragrostis eriopoda		30	0.01	
Euphorbia tannensis subsp. e	remophila	30	0.01	
Goodenia microptera		15	0.01	
Gossypium australe			0.01	
Hakea lorea subsp. lorea		300	0.1	
Hibiscus sturtii var. platychlan	iys	30	0.5	
Indigofera linifolia		20	0.01	
Indigofera monophylla		10	0.01	
Iseilema eremaeum		10	0.01	
Polycarpaea corymbosa		10	0.01	
Portulaca oleracea		5	0.01	
Ptilotus exaltatus var. exaltatus		15 10	0.01	
Sclerolaena cornishiana Senna artemisioides subsp. helmsii		70	0.05	
Senna artemisioides subsp. o		80	0.05	
Senna notabilis	U-1- J	20	0.05	
Sida platycalyx			0.01	
Solanum lasiophyllum		50	0.5	
Stemodia ? grossa			0.01	
Trianthema pilosa		5	0.05	
Tribulus macrocarpus		5	0.01	
Trichodesma zeylanicum			0.01	

Triodia epactia	100	45	





Plot:	C038	Camera	Chris	
Date:	14-Apr	Photo #	618-619	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	,	
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	744120	Outcrop:		
NW Northing:	7488277	Outcrop Type:		
SE Easting:	744170			
		Litter cover (%)	 	
SE Northing:	7488227	Logs	Twigs	Leaves
Topography:	flat	-	2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:	_	Upper	600	1
Time since fire (yrs):	5	Mid	250	10
Disturbance:	low	Lower	100	50
Condition:	excellent	Bare ground (%):	40	
Observations	<u> </u>	1	T	0, 55
Species		Height (cm)	% AC	% DC
Abutilon lepidum		20	0.05	
Abutilon trudgenii		10	0.01	
Acacia ?aneura		600	1	
Acacia ?synchronicia		200	4	
Acacia citrinoviridis		200	0.01	
Acacia inaequilatera		200	0.05	
Acacia pachyacra		200	0.5	
Acacia pruinocarpa	la va a n a vma a	300	4	
Acacia sclerosperma subsp. sci	erosperma	180	0.05	
Aristida contorta		20 5	0.01	
Bulbostylis barbata Cenchrus ciliaris		50	0.01	
Chrysopogon fallax		130	0.2	
Cleome viscosa		40	0.02	
Corchorus sidoides subsp. sido	ides	15	0.01	
Corchorus sidoides subsp. sido		15	0.01	
Cucumis maderaspatanus			0.01	
Cymbopogon obtectus		130	0.01	
Dactyloctenium radulans		15	0.01	
Dysphania rhadinostachya			0.01	
Enneapogon polyphyllus		20	0.01	
Eremophila longifolia		150	0.5	
Eriachne aristidea			0.01	
Euphorbia australis		10	0.01	
Euphorbia tannensis subsp. ere		10	0.01	
Evolvulus alsinoides var. villosio	alyx		0.01	
Goodenia muelleriana		5	0.05	
Gossypium australe		50	0.01	
Hakea lorea subsp. lorea Iseilema eremaeum		250 15	0.2 0.01	
Portulaca oleracea		5	0.01	
Ptilotus exaltatus var. exaltatus		40	0.01	
Ptilotus obovatus var. obovatus		40	0.1	
Rhagodia eremaea			0.01	
Rhynchosia minima			0.01	
Sclerolaena cornishiana		15	0.01	
Senna artemisioides subsp. hel	msii	50	0.1	
Senna notabilis		20	0.1	
Sida platycalyx		5	0.05	

Solanum lasiophyllum	40	0.1	
Sporobolus australasicus	15	0.01	
Tephrosia supina	15	0.01	
Tribulus hirsutus	15	0.01	
Triodia epactia	120	47	





Plot:	C039	Camera	Chris	
Date:	14-Apr	Photo #	615-616	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
			Ted blown	
Datum:	GDA	Soil comments:	_	
NW Easting:	745214	Outcrop:		
NW Northing:	7485495	Outcrop Type:		
SE Easting:	745264	Litter cover (%)		
SE Northing:	7485445	Logs	Twigs	Leaves
Topography:	flat		2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	350	15
Disturbance:	low	Lower	100	50
Condition:	excellent	Bare ground (%):	40	
Observations			1	
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		300	4	
Acacia bivenosa		200	0.2	
Acacia inaequilatera		350	10	
Aristida holathera		20	0.01	
Boerhavia coccinea		5	0.01	
Bulbostylis barbata		5	0.2	
Cassytha capillaris			0.01	
Cleome viscosa		40	0.05	
Corchorus aff walcottii		15	0.01	
Corchorus sidoides subsp.	sidoides	15	0.01	
Cucumis maderaspatanus			0.01	
Cymbopogon obtectus		130	0.01	
Dysphania rhadinostachya	subsp. <i>inflata</i>	10	0.01	
Eragrostis eriopoda		30	0.5	
Eriachne aristidea		40	0.1	
Euphorbia australis		20	0.01	
Euphorbia tannensis subsp		30	0.01	
Grevillea wickhamii subsp.	hispidula	400	1	
Hakea lorea subsp. lorea		350	0.2	
Hibiscus sturtii var. platych	lamys	30	0.01	
Indigofera monophylla			0.01	
Indigofera monophylla			0.01	
Paraneurachne muelleri		30	2	
Perotis rara	allana a la Ha	5	0.01	
Senna artemisioides subsp	. oligophylla	100	0.05	
Senna notabilis		15	0.05	
Solanum lasiophyllum Solanum sturtianum		50 40	0.01 0.05	
Tephrosia supina		20	0.05	
Trianthema pilosa		5	0.01	
Triodia basedowii		100	20	
Triodia epactia		100	20	
Yakirra australiensis		15	0.01	





Plot:	C040	Camera	Chris	
Date:	14-Apr	Photo #	612-613	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	bronwyn	
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA		some surface	rook
		Soil comments:	some surface	TOCK
NW Easting:	746076	Outcrop:		
NW Northing:	7485690	Outcrop Type:		
SE Easting:	746126	Litter cover (%)	ļ	
SE Northing:	7485640	Logs	Twigs	Leaves
Topography:	flat		5	5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	400	10
Disturbance:	low	Lower	100	40
Condition:	excellent	Bare ground (%):	40	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ancistrocarpa		40	0.01	
Acacia bivenosa		200	0.05	
Acacia inaequilatera		200	1	
Acacia pachyacra		200	0.5	
Acacia pruinocarpa		200	0.05	
Aristida holathera var. holati	hera	20	0.5	
Boerhavia coccinea		5	0.01	
Cleome viscosa		40	0.1	
Corchorus sidoides subsp. s		15	0.01	
Dysphania rhadinostachya s		10	0.05	
Dysphania rhadinostachya s	subsp. <i>rhadinostachya</i>	10	0.01	
Eragrostis eriopoda		30	0.1	
Eremophila longifolia		120	0.2	
Eriachne aristidea		400	0.01	
Eucalyptus gamophylla		400	8	
Euphorbia australis Grevillea wickhamii subsp. h	nienidula	10 180	0.01 0.5	
Hibiscus sturtii var. platychla		30	0.2	
Indigofera monophylla	anyo	20	0.05	
Paraneurachne muelleri		30	2	
Phyllanthus erwinii		5	0.01	
Portulaca oleracea		5	0.01	
Ptilotus astrolasius		20	0.1	
Ptilotus calostachyus		20	0.05	
Ptilotus exaltatus var. exaltatus		50	0.01	
Ptilotus obovatus var. obovatus		40	0.01	
Senna artemisioides subsp. helmsii		50	0.01	
Senna artemisioides subsp.	oligophylla	60	0.01	
Senna notabilis	-	15	0.05	
Solanum lasiophyllum	,	40	0.05	
Solanum sturtianum		40	0.01	
Trianthema pilosa		10	0.01	
Tribulus hirsutus		5	0.01	
Tribulus macrocarpus Triodia basedowii		15 100	0.001 35	
Triodia basedowii		1100	JJJ	





Plot:	C041	Camera	Chris	
Date:	13-Apr	Photo #	609-610	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
	mf ch	Photo # revisit	Bionwyn	
Initials:			la ana ana a	
Initials revisit:	CH/BN	Soils	loam sand	
Zone:	50	Soil colour:	brown	
Datum:	GDA	Soil comments:		
NW Easting:	742921	Outcrop:		
NW Northing:	7484818	Outcrop Type:		
SE Easting:	742971	Litter cover (%)		
SE Northing:	7484768	Logs	Twigs	Leaves
Topography:	flat		5	5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	2
Time since fire (yrs):	5	Mid	400	5
Disturbance:	low	Lower	130	40
Condition:	excellent	Bare ground (%):	50	40
	excellent	Bare ground (%).	50	
Observations			lo	% DC
Species		Height (cm)	% AC	% DC
Abutilon lepidum		30	0.01	
Acacia ?aneura		200	0.05	
Acacia ?dictyophleba		150	0.02	
Acacia ancistrocarpa		140	0.1	
Acacia citrinoviridis		160	0.05	
Acacia dictyophleba		50	0.05	
Acacia inaequilatera		400	4	
Acacia pachyacra		350	1	
Acacia pruinocarpa		140	0.05	
Aristida contorta		20	0.1	
Aristida holathera var. holath	<u>era</u>	40	1	
Boerhavia coccinea		5	0.01	
Cenchrus ciliaris		40	0.1	
Cleome viscosa		40	0.1	
Corchorus elachocarpus		20	0.05	
Corchorus elachocarpus		20	0.01	
Corymbia hamersleyana		600	2	
Cucumis maderaspatanus		5	0.01	
Cymbopogon obtectus		120	0.01	
Dysphania rhadinostachya		10	0.01	
Eragrostis eriopoda		30	0.05	
Eriachne aristidea		20	0.05	
Euphorbia biconvexa		15	0.01	
Gossypium robinsonii	in mink da	160	0.05	
Grevillea wickhamii subsp. h	ispiauia <u> </u>	180	0.02	
Hakea lorea subsp. lorea		400 30	0.1 0.01	
Hibiscus sturtii var. platychlamys Paraneurachne muelleri		30	0.5	
Ptilotus helipteroides		40	0.01	
		40	0.01	
Salsola australis Senna artemisioides subsp. oligophylla		60	0.01	
Senna glutinosa subsp. pruiri		40	0.01	
Senna notabilis		20	0.01	
Setaria verticillata		30	0.01	
Tephrosia supina		20	0.01	
Trianthema pilosa		10	0.01	
Tribulus hirsutus		15	0.01	
Tribulus macrocarpus		5	0.01	
Triodia epactia		130	35	





Plot:	C042	Camera	Chris	
Date:	13-Apr	Photo #	604-605	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	rocky loam s	and
Zone:	50	Soil colour:	brown	
Datum:	GDA	Soil comments:	caluvium slo	
			Caluvium Sio	pe
NW Name to the second	745560	Outcrop:		
NW Northing:	7483738	Outcrop Type:		
SE Easting:	745610	Litter cover (%)		1
SE Northing:	7483688	Logs	Twigs	Leaves
Topography:	lower slope		2	3
Aspect:	east	STRATA	Ht (cm)	% Cover
Slope:	>5	Upper		
Time since fire (yrs):	3	Mid	300	15
Disturbance:	low	Lower	150	40
Condition:	excellent	Bare ground (%):	40	
Observations				
Species	•	Height (cm)	% AC	% DC
Acacia adoxa var. adoxa		15	0.1	
Acacia dictyophleba		20	0.01	
Acacia pachyacra		150	0.2	
Cassytha capillaris			0.01	
Corchorus elachocarpus		20	0.1	
Dampiera candicans		40	0.5	
Dicrastylis cordifolia		15	0.05	
Dysphania rhadinostachya		20	0.01	
Eragrostis eriopoda		30	1	
Eriachne aristidea		30	0.05	
Fimbristylis depauperata		20	0.01	
Fimbristylis simulans		10	0.01	
Goodenia microptera		20	0.01	
Grevillea wickhamii subsp.	hispidula	300	7	
Hakea chordophylla		300	1	
Heliotropium pachyphyllum	1	15	0.1	
Hybanthus aurantiacus		40	0.01	
Indigofera monophylla		20	0.01	ļ
Mollugo molluginea		15	0.2	ļ
Paraneurachne muelleri		20	0.01	
Petalostylis labicheoides		200	7	ļ
Ptilotus astrolasius		30	0.01	1
Ptilotus calostachyus Ptilotus exaltatus var. exal	tatus	130	5	1
Sida cardiophylla	เสเนง	15 30	0.01	
Trianthema glossostigma		55	0.01	
Triodia basedowii		60	5	
Triodia epactia		70	5	1
Triodia sp. Shovelanna Hil	I (S. van Leeuwen 3835)	50	20	
Triodia sp. Shovelanna Hil		30	20	





Plot:	C043	Camera	Chris	
Date: Date revisit:	13-Apr Jul-11	Photo #	601-602	
Initials:	mf ch	camera revisit Photo # revisit	bronwyn	
			loom oond	
Initials revisit:	CH/BN	Soils	loam sand	
Zone:	50	Soil colour:	brown	
Datum:	GDA	Soil comments:		
NW Easting:	744627	Outcrop:		
NW Northing:	7485091	Outcrop Type:		
SE Easting:	744677	Litter cover (%)		
SE Northing:	7485041	Logs	Twigs	Leaves
Topography:	flat		2	8
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	1
Time since fire (yrs):	5	Mid	400	10
Disturbance:	low	Lower		50
Condition:	excellent	Bare ground (%):	40	
Observations		, - , , ,		
Species	•	Height (cm)	% AC	% DC
Acacia inaequilatera		400	4	
Acacia pachyacra		300	0.5	
Acacia pruinocarpa		400	0.5	
Acacia sclerosperma subsp.	sclerosperma	300	4	
Aristida contorta		30	0.05	
Boerhavia coccinea		5	0.05	
Bulbostylis barbata		5	0.01	
Bulbostylis barbata		5	0.01	
Cenchrus ciliaris		40	0.5	
Cenchrus setiger		30	0.01	
Cenchrus setiger		30	0.01	
Cleome viscosa		30	0.02	
Corymbia hamersleyana		600	0.5	
Dicrastylis cordifolia		20	0.02	
Dicrastylis cordifolia		20		
Eragrostis eriopoda		30	1	
Eriachne aristidea		20	0.01	
Euphorbia biconvexa		10	0.01	
Gossypium australe		30	0.01	
Gossypium australe Heliotropium cunninghamii		15	0.01	
Hibiscus sturtii var. platychla	mvs	10	0.01	
Hibiscus sturtii var. platychla	•		0.01	
Paraneurachne muelleri	iiiyo	30	0.2	
Ptilotus astrolasius		30	0.05	
Ptilotus exaltatus var. exaltatus		15	0.01	
Ptilotus obovatus var. obovatus		20	0.01	
Senna artemisioides subsp.	helmsii	80	0.01	
Senna artemisioides subsp.		80		
Senna artemisioides subsp.	oligophylla	50	4	
Senna notabilis		15	0.05	
Sida echinocarpa		20	0.02	
Solanum lasiophyllum Trianthema pilosa		30 5	0.01 0.05	
Tribulus hirsutus		5	0.05	
Triodia basedowii		80	40	
dia saddadiii		100	1.0	

Triodia schinzii 130 1			
Triodia scriirizii	130	1	





	I = - · ·		T	
Plot:	C044	Camera	chris	
Date:	13-Apr	Photo #	598-599	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam sand	
Zone:	50	Soil colour:	brown	
			DIOWII	
Datum:	GDA	Soil comments:		
NW Easting:	745177	Outcrop:		
NW Northing:	7484898	Outcrop Type:		
SE Easting:	745227	Litter cover (%)		
SE Northing:	7484848	Logs	Twigs	Leaves
Topography:	flat	Logs	5 Twigs	5
	ııaı			
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	2
Time since fire (yrs):	4	Mid	400	5
Disturbance:	low	Lower	130	50
Condition:	excellent	Bare ground (%):	40	
Observations			•	•
Species		Height (cm)	% AC	% DC
Abutilon leucopetalum		50	0.2	
Acacia ancistrocarpa		40	0.2	
,				
Acacia dictyophleba		30	0.01	
Acacia inaequilatera		400	3	
Acacia inaequilatera		600	2	
Acacia pachyacra		300	0.2	
Acacia sclerosperma subsp. scler	osperma	110	0.1	
Acacia sericophylla		150	0.01	
Acacia tumida var. pilbarensis		100	0.2	
Aristida contorta		30	0.02	
Aristida holathera var. holathera		40	0.2	
Boerhavia coccinea		5	0.01	
Cenchrus ciliaris		40	0.1	
Cleome viscosa		40	0.01	
Corchorus elachocarpus		20	0.1	
Corchorus elachocarpus		20	0.1	
Corymbia hamersleyana		600	2	
Cucumis maderaspatanus		5	0.01	
Dicrastylis cordifolia		20	0.1	
Dysphania rhadinostachya subsp.	inflata	10	0.01	<u> </u>
	iiiiata	30	0.01	
Eragrostis eriopoda Eriachne aristidea				
	lo.	20	0.01	
Eriachne pulchella subsp. pulchel	la	10	0.01	
Eucalyptus gamophylla		250	2	
Euphorbia australis		10	0.01	ļ
Goodenia microptera		20	0.01	ļ
Hakea lorea subsp. lorea		300	0.5	ļ
Hibiscus sturtii var. platychlamys		20	0.05	
Indigofera monophylla		20	0.01	
Paraneurachne muelleri		30	0.1	
Ptilotus astrolasius		20	0.1	
Ptilotus calostachyus		30	0.01	ļ
Scaevola parvifolia subsp. parvifolia		20	0.1	
Scaevola spinescens	- "	80	0.2	
Senna artemisioides subsp. helms		40	0.1	
Senna artemisioides subsp. oligop	onylla	30	0.05	
Senna notabilis		15	0.01	ļ
Sida cardiophylla		40	0.01	
Sida echinocarpa		20	0.01	
Solanum sturtianum		100	0.02	ļ
Trianthema pilosa		10	0.05	ļ
Tribulus occidentalis		10	0.01	ļ
Triodia basedowii		80	30	ļ
Triodia schinzii		130	10	





Plot:	C045	Camera	Chris	
Date:	13-Apr	Photo #	595-596	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam sand	
Zone:	50	Soil colour:	brown	
Datum:	GDA	Soil comments:		
NW Easting:	746089	Outcrop:		
NW Northing:	7484427	Outcrop Type:		
SE Easting:	746139	Litter cover (%)		
SE Northing:	7484377	Logs	Twigs	Leaves
Topography:	low plains		5	10
Aspect:	nw	STRATA	Ht (cm)	% Cover
Slope:	>5	Upper	(311)	70 00101
Time since fire (yrs):	5	Mid	600	10
Disturbance:	low	Lower	150	50
Condition:	excellent	Bare ground (%):	35	
Observations		J 3 2 3 4 4 (13)		
Species	<u> </u>	Height (cm)	% AC	% DC
Abutilon leucopetalum		20	0.01	
Acacia dictyophleba		40	0.1	
Acacia inaequilatera		400	9	
Acacia pachyacra		300	0.5	
Acacia sericophylla		3	0.1	
Aristida holathera var. holathe	ra	50	0.05	
Bonamia rosea		30	1	
Cleome viscosa		40	0.1	
Corchorus elachocarpus		30	0.05	
Corchorus elachocarpus			0.05	
Corymbia hamersleyana		600	0.1	
Cucumis maderaspatanus			0.01	
Dicrastylis cordifolia		30	1	
Eragrostis eriopoda		40	5	
Eriachne aristidea		40	5	
Euphorbia australis		10	0.01	
Hakea chordophylla		400	1	
Hakea lorea subsp. lorea		200	0.1	
Paraneurachne muelleri				
Ptilotus polystachyus		20	0.05	
Scaevola parvifolia subsp. par		30	0.2	
Senna artemisioides subsp. h		60	0.05	
Senna artemisioides subsp. of	іідоргіуна	50	0.05	
Senna notabilis		20	0.05	
Sida cardiophylla Trianthema pilosa		20 10	0.01 0.05	
Tribulus macrocarpus		10	0.03	
Triodia schinzii		150	30	
daid dormien		1.55	1	





Diet	0040	Comercia	ala vi c	
Plot:	C046	Camera	chris	
Date:	1-Apr	Photo #	485-486	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mj ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red	
Datum:	GDA	Soil comments:		
NW Easting:	743536	Outcrop:		
NW Northing:	7488750	Outcrop Type:		
SE Easting:	743586	Litter cover (%)		
SE Northing:	7488700	Logs	Twigs	Leaves
Topography:	flat	1		1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	111 (0111)	70 0010.
Time since fire (yrs):	5	Mid	400	5
Disturbance:	low	Lower	60	35
				00
Condition:	excellent	Bare ground (%):	55	
Observations		1	T	0/ 00
Species		Height (cm)	% AC	% DC
Abutilon lepidum		15	0.05	
Acacia ?aneura		160	0.5	
Acacia ?synchronicia		70	0.1	
Acacia citrinoviridis		160	0.1	
Acacia pruinocarpa		300	0.5	
Acacia sclerosperma subsp. sclerosperma		250		
Aristida contorta		20 10	0.1	
Boerhavia coccinea		30	0.05	
Cenchrus ciliaris		30	0.01	
Cenchrus setiger Cheilanthes sieberi subsp. siebe	ri	30	0.1	
Chrysopogon fallax		80	1	
Cleome viscosa		20	0.1	
Cucumis maderaspatanus		20	0.1	
Dactyloctenium radulans		10	0.02	
Dysphania rhadinostachya			0.1	
Enneapogon polyphyllus			0.1	
Eremophila glabra		30	1	
Eremophila lanceolata			0.1	
Eremophila longifolia		180	0.1	
Evolvulus alsinoides var. villosica	alyx	15	0.03	
Goodenia muelleriana			0.1	
Hakea lorea subsp. lorea		280	0.1	
Perotis rara			0.1	
Polycarpaea corymbosa		10	0.01	
Portulaca oleracea		5	0.1	
Portulaca oleracea			0.2	
Ptilotus exaltatus var. exaltatus		20	0.3	
Phynobosia minima		50	0.1	
Rhynchosia minima Salsola australis			0.1	
Sclerolaena cornishiana			0.1	
Senna artemisioides subsp. heln	ารii	30	0.1	
Senna notabilis		15	0.01	
Sida platycalyx			0.1	
		•	-	

Solanum lasiophyllum	20	0.5
Sporobolus australasicus	15	0.05
Tribulus suberosus	100	0.1
Trichodesma zeylanicum var. zeylanicum	80	0.02
Triodia epactia	70	25





Plot:	C047	Camera	Chris	
Plot: Date:		Photo #	489-491	
Date:	1-Apr Jul-11	Camera revisit	bronwyn	
Initials:		Photo # revist	DIOHWYH	
	mj ch		loom	
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	some rock	
NW Easting:	743700	Outcrop:		
NW Northing:	7490133	Outcrop Type:		
SE Easting:	743750	Litter cover (%)		
SE Northing:	7490083	Logs	Twigs	Leaves
Topography:	flat	0.2	0.5	0.01
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	450	2
Time since fire (yrs):	5	Mid	200	1
Disturbance:	low	Lower	70	5
Condition:	excellent	Bare ground (%):	90	
Observations	CAUGIIGI IL	pare ground (%).	90	
		Hoight (am)	% AC	% DC
Species Abutilan atasarnum		Height (cm)	% AC 0.01	/0 DC
Abutilon otocarpum Acacia ?aneura		400	2	
		150	0.5	
Acacia dictyophleba Acacia pruinocarpa		300	0.5	
Aristida contorta		20	0.2	
Aristida inaequiglumis			0.01	
Boerhavia coccinea		15	0.5	
Bulbostylis barbata		10	0.01	
Cenchrus ciliaris		30	0.01	
Chrysopogon fallax		90	2	
Corchorus sidoides subsp. sidoid	les	20	0.05	
Cucumis maderaspatanus			0.01	
Cymbopogon obtectus		30	0.1	
Dactyloctenium radulans		20	0.1	
Dysphania rhadinostachya subsp	o. inflata		0.01	
Enneapogon polyphyllus		15	0.02	
Eremophila forrestii ?subsp. forre	estii	100	0.1	
Eremophila latrobei subsp. filifori		60	0.05	
Eriachne pulchella subsp. pulche	ella		0.01	
Eulalia aurea		40	0.02	
Euphorbia australis		2	0.01	
Gomphrena affinis subsp. pilbare	ensis	20	0.01	
Goodenia muelleriana		2	0.05	
Gossypium australe			0.01	
Hakea lorea subsp. lorea		200	0.05	
Heliotropium heteranthum		2	0.01	
Hibiscus burtonii		40 20	0.1	
Maireana planifolia Paraneurachne muelleri		20	0.01 0.05	
Paspalidium rarum		20	0.05	
Perotis rara		15	0.05	
Polycarpaea corymbosa			0.01	
Portulaca oleracea		5	0.05	
Ptilotus exaltatus var. exaltatus			0.01	
Ptilotus helipteroides			0.01	
Salsola australis		30	0.1	· · · · · · · · · · · · · · · · · · ·
Sclerolaena cornishiana		20	0.1	
Senna artemisioides subsp. heln		50	0.1	
Senna artemisioides subsp. oligo	pphylla ? x helmsii	40	0.01	

Senna glutinosa subsp. x luerssenii	100	0.1	
Senna notabilis	15	0.01	
Sida echinocarpa	30	0.02	
Sida sp. verrucose glands (F.H. Mollemans 2423)	15	0.05	
Solanum lasiophyllum		0.2	
Sporobolus australasicus	15	0.05	
Tragus australianus	10	0.01	
Triodia epactia	60	2	





Plot:	C048	Camera	Chris	
Date:	1-Apr	Photo #	492-495	
Date revisit:	Jul-11	Camera revisit:	bronwyn	
Initials:	mf ch	Photo # revisit	Dionwyn	
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA			:tt
		Soil comments:	looks to get	quite wet
NW Easting:	744306	Outcrop:		
NW Northing:	7490890	Outcrop Type:		
SE Easting:	744356	Litter cover (%)		
SE Northing:	7490840	Logs	Twigs	Leaves
Topography:	flat	1		40
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	600	50
Time since fire (yrs):	5	Mid	150	2
Disturbance:	low	Lower	100	20
Condition:	excellent	Bare ground (%):	35	
Observations			-	
Species	•	Height (cm)	% AC	% DC
Abutilon lepidum		15	0.05	
Abutilon macrum		15	0.01	
Acacia aneura		600	50	
Anthobolus leptomerioides	Anthobolus leptomerioides		0.04	
Aristida inaequiglumis		50	0.1	
Bidens bipinnata		15	0.5	
Boerhavia coccinea		10	0.01	
Boerhavia repleta		10	0.05	
Bulbostylis barbata		5	0.1	
Cheilanthes sieberi subsp.	. sieberi	15	0.5	
Chloris pectinata		15	0.01	
Chrysopogon fallax		120	5	
Cleome viscosa		20	0.1	
Corchorus sp.		15	0.01	
Corchorus tridens		20		
Cumbanagan abtaatus		50	0.1	
Cymbopogon obtectus Dactyloctenium radulans		50 15	0.05	
Digitaria ctenantha		5	0.01	
Duperreya commixta		3	0.05	
Enneapogon polyphyllus		20	0.05	
Eragrostis cumingii		40	0.03	
Eragrostis eriopoda		20	0.05	
Eragrostis tenellula		20	0.01	1
	Eremophila forrestii ?subsp. forrestii		1	
Eremophila longifolia		130 40	0.05	
Euphorbia biconvexa		15	0.01	
Evolvulus alsinoides var. v	villosicalyx	15	0.5	
Goodenia microptera		20	0.2	
Goodenia muelleriana		5	0.05	
Heliotropium cunninghamii	1	10	0.05	
Maireana planifolia Nicotiana occidentalis sub	en obligue	20 20	0.05 0.01	
	อม. บมแนนส	20	0.01	1
Perotis rara			0.0	1

Species	Height (cm)	% AC	% DC
Polycarpaea corymbosa	10	0.01	
Portulaca oleracea	5	0.05	
Portulaca pilosa		0.1	
Psydrax latifolia	300	1	
Pterocaulon sphaeranthoides	20	0.05	
Ptilotus fusiformis	20	0.05	
Ptilotus obovatus var. obovatus	40	0.1	
Sclerolaena cornishiana		0.1	
Senna artemisioides subsp. helmsii	25	0.1	
Senna artemisioides subsp. oligophylla	50	0.01	
Senna notabilis	15	0.05	
Sida echinocarpa	15	0.05	
Sida platycalyx	15	0.05	
Sida sp. verrucose glands (F.H. Mollemans 24	10	0.01	
Solanum lasiophyllum	30	0.01	
Spermacoce brachystema		0.5	
Sporobolus australasicus	15	0.05	
Stenopetalum nutans	10	0.01	
Stenopetalum nutans	15	0.01	





Plot:	C049	Camera	Chris	
Date:	2-Apr	Photo #	496-499	
Date revisit:	N/A	camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	Some interm	ittent calcrete
NW Easting:	744443	Outcrop:		
NW Northing:	7513604	Outcrop Type:		
SE Easting:	744493	Litter cover (%)		
SE Northing:	7513547	Logs	Twigs	Leaves
Topography:	flat		2	1
Aspect:	nat	STRATA	Ht (cm)	% Cover
Slope:		Upper	Tit (Cili)	70 COVE1
Time since fire (yrs):	5	Mid	150-400	20
Disturbance:	low	Lower	18384	20
Disturbance.	IOW	Lower	10304	20
Condition:	excellent	Bare ground (%):	75	
Observations			la: • •	% DC
Species		Height (cm)	% AC	% DC
Abutilon fraseri		40	0.01	
Acacia ?synchronicia		300	5	
Acacia tetragonophylla		350	2	
Acacia xiphophylla		350	2	
Atriplex amnicola		60	0.05	
Boerhavia burbidgeana		10	0.1	
Cenchrus ciliaris		50	12	
Cleome viscosa		200	1	
Corchorus tridens		15	0.02	
Cucumis maderaspatanus		00	0.01	
Dactyloctenium radulans		20	0.05	
Dissocarpus paradoxus		20	0.02	
Enchylaena tomentosa Eremophila forrestii ?subsp.	forroatii	50	0.01	
•		50 150	0.05	
Eremophila youngii subsp. lepidota		200	1	
Melaleuca glomerata Melaleuca xerophila		400	10	
Pluchea ferdinandi-muelleri		70	0.01	
Portulaca oleracea		5	0.05	
Rhagodia eremaea		80	0.03	
Rhyncharrhena linearis			0.01	
Salsola australis		20	0.01	
Scaevola spinescens		90	0.01	
Sclerolaena diacantha		20	0.1	
Senna artemisioides subsp.	helmsii	50	0.1	
Solanum lasiophyllum		30	0.01	
Sporobolus australasicus		20	0.1	





Date revisit: N/A	Plot:	C050	Camera	chric	
Date revisit: N/A Camera revisit N/A Initials: mf ch Photo # revisit Initials revisit: N/A Soils clay Zone: 50 Soil colour: red Soil colour: red Soil comments: looked to get quite dan N/A Soils Comments: Comments					
Initials:	= 3.10.				
Initials revisit: N/A Soils Clay				111/7	
Zone: 50 Soil colour: red				olov	
Datum: GDA Soil comments: looked to get quite dan				·	
NW Easting: 744212					
NW Northing: 7513658 Outcrop Type: SE Easting: 744262 Litter cover (%) SE Northing: 7513618 Logs Twigs Leave Topography: flat 2 5 5 5 Sepect: STRATA Ht (cm) % Cov Slope: Upper Time since fire (yrs): 5 Mid 100-400 30 Disturbance: low Lower 50 20 Condition: excellent Bare ground (%): 70 Observations				looked to get	quite damp
SE Easting: 744262 Litter cover (%) SE Northing: 7513618 Logs Twigs Leave Topography: flat 2 5 5 Aspect: STRATA Ht (cm) % Cov Slope: Upper Upper Time since fire (yrs): 5 Mid 100-400 30 Disturbance: Iow Lower 50 20 Condition: excellent Bare ground (%): 70 Dobas Observations Properties Height (cm) % AC % DC Acacia xiphophylla 400 4 Acacia xiphophylla 400 4 Acacia xiphophylla 400 4 Acacia xiphophylla 400 1 Atriplex amnicola 400 0.02 Atriplex bunburyana 50 0.02 Bisidesh bipinnata 20 0.1 0.02 Bisidesh bipinnata 20 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	NW Easting:	744212	Outcrop:		
SE Northing: 7513618	NW Northing:	7513658	Outcrop Type:		
SE Northing: 7513618	SE Easting:	744262	Litter cover (%)		
Aspect: STRATA	SE Northing:	7513618	Logs	Twigs	Leaves
Slope: Upper	Topography:	flat			5
Slope: Upper			STRATA	Ht (cm)	% Cover
Time since fire (yrs): 5 Mid 100-400 30	-		Upper	` ′	
Disturbance:	-	5		100-400	30
Deservations					
Species Height (cm) % AC % DC % DC Acacia ?synchronicia 200 0.1 Acacia istragonophylla 400 4 Acacia istragonophylla 300 1 Atriplex amnicola 60 0.02 Atriplex bunburyana 50 0.02 Bidens bipinnata 20 0.1 Cenchrus ciliaris 50 3 Cleome viscosa 20 0.1 Cenchrus ciliaris 5 5 5 5 Cucumis maderaspatanus 0.1 Dichanthium sericeum subsp. humilius 15 0.05 Enchylaena tomentosa 40 2 Enneapogon polyphyllus 20 0.1 Eremophia polyphyllus 20 0.1 Eremophia longifolia 350 4 Eremophia longifolia 350 4 Eremophia youngii subsp. lepidota 200 0.1 Eriachne benthamii 30 0.06 Eriachne benthamii 30 0.06 Eriachne laena ?vaginiflorum 20 0.1 Melaleuca glomerata 400 7 Melaleuca glomerata 400 7 Melaleuca glomerata 400 7 Melaleuca glomerata 400 7 Melaleuca eleracea 5 1 Priliotus exaltatus var. exaltatus 40 0.05 Rhagodia eremaea 50 1 Scaevola spinescens 1 Scaevola spinescens 1	Condition:		Bare ground (%):		
Species Height (cm) % AC % DC				•	•
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	Santalum lanceolatum		200		
I Senna arremisioides sunso helmsii ISO ISO II			50		
	Senna artemisioides subsp. helm	SII	50	1	
Sida fibulifera 15 0.1 Solanum lasiophyllum 30 0.05					
Sporobolus australasicus 30 1					
Tragus australianus 10 0.01				0.01	
Unidentifiable sp. 80 0.1	Unidentifiable sp.		80		
Vigna sp. Central (M.E. Trudgen 1626)	Vigna sp. Central (M.E. Trudgen	1626)		0.01	





Plot:	C051	Camera	Chris	
Date:	2-Apr	Photo #	504-506	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	743307	Outcrop:		
NW Northing:	7513265	Outcrop Type:		
SE Easting:	743357	Litter cover (%)		
SE Northing:	7513215	Logs	Twigs	Leaves
Topography:	flat	0.5	5	15
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	500	7
Time since fire (yrs):	5	Mid	15	300
Disturbance:	low	Lower	70	50
Condition:	very good	Bare ground (%):	30	
Observations	lots of buffle grass in	low lying channel co	untry	
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		250	5	
Acacia aneura		500	7	
Acacia sclerosperma subsp. scle	rosperma	300	1	
Acacia tetragonophylla		300	0.5	
Atriplex amnicola		50	0.1	
Atriplex codonocarpa		15	0.1	
Boerhavia burbidgeana		50	0.01	
Cenchrus ciliaris		70	45	
Cleome viscosa		30	0.01	
Corchorus tridens		10	0.1	
Eremophila youngii subsp. lepidota		250	2	
Maireana pyramidata		40	1	
Melaleuca glomerata		350	5	
Melaleuca xerophila		300 150	0.5 0.05	
Rhagodia eremaea Sclerolaena diacantha		20	0.05	
Sclerolaena sp.		30	0.05	
Senna artemisioides ?subsp. olig	ionhylla x	60	0.05	
Triodia epactia	opriyila x	50	0.05	
тпоша врасца		00	0.00	





Plot:	C052	Camera	Chris	
Date:	2-Apr	Photo #	509-511	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	silty clay	
Zone:	50	Soil colour:	red	
Datum:	GDA	Soil comments:	some wet pat	ches
NW Easting:	743658	Outcrop:	come wet par	01100
NW Northing:	7512778	Outcrop Type:		
SE Easting:	743708			
		Litter cover (%)	T	
SE Northing:	7512728	Logs	Twigs	Leaves
Topography:	flat	3	5	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	15
Time since fire (yrs):	5	Mid	300	30
Disturbance:	low	Lower	150	35
Condition:	y good	Bare ground (%):	50	
Observations				
Species		Height (cm)	% AC	% DC
Abutilon lepidum		30	0.02	
Acacia ?aneura		1000	12	
Acacia ?synchronicia		300	5	
Acacia tetragonophylla		400	2	
Acacia xiphophylla		400	1	
Atriplex amnicola		50	0.1	
Blumea tenella		10	0.01	
Boerhavia coccinea		10	0.05	
Cenchrus ciliaris		70	15	
Chloris pectinata		20	0.01	
Chrysopogon fallax		170	15	
Cleome viscosa		50	0.5	
Convolvulus ?remotus		5	0.01	
Corchorus tridens		5	0.4	
Cucumis maderaspatanus			0.02	
Cyperus iria		15	0.01	
Eremophila longifolia		200	0.1	
Eremophila youngii subsp. lej	oidota	300	0.5	
Eriachne benthamii		30	0.1	
Eriachne mucronata		40	0.01	
Fimbristylis microcarya		5	0.01	
Goodenia muelleriana		15	0.01	
Grevillea striata		1000	3	
Ipomoea coptica			0.02	
Malvastrum americanum		10	0.2	
Melaleuca lanceolata		20	0.1	
Melaleuca xerophila		400	20	
Paspalidium basicladum		30	0.01	
Poaceae sp.		30	0.1	
Psydrax latifolia		400 15	0.1	
Ptilotus gomphrenoides Scaevola spinescens		150	0.02	
Senna artemisioides subsp. h	nelmsii	100	0.5	
Solanum lasiophyllum	IOIIIIOII	20	0.5	
Sporobolus australasicus		50	0.5	
Sporobolus australasicus		1	12.0	





Plot:	C053	Camera	Chris	
Date:	3-Apr	Photo #	512-514	
Date revisit:	N/A	Soils	clay loam	
Initials:	mf ch	Camera revisit	N/A	
Initials revisit:	N/A	Photo # revisit		
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	744186	Outcrop:		
NW Northing:	7501867	Outcrop Type:		
SE Easting:	744236	Litter cover (%)		
SE Northing:	7501817	Logs	Twigs	Leaves
Topography:	flat	1	5	30
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	40
Time since fire (yrs):	5	Mid	1000	
Disturbance:	low	Lower	100	5
Condition:	excellent	Bare ground (%):	60	
Observations	oxeenerit	Dai 0 g. 0 a. 1 a (70).	- 33	1
Species	1	Height (cm)	% AC	% DC
Abutilon lepidum		15	1	
Acacia ?aneura		1000	38	
Acacia ?synchronicia		100	0.1	
Acacia tetragonophylla		700	1	
Bidens bipinnata		15	1	
Blumea tenella		10	1	
Boerhavia burbidgeana		10	0.02	
Brachyscome sp.		5	0.01	
Cenchrus ciliaris		60	0.5	
Chrysopogon fallax		40	0.5	
Cleome viscosa		30	0.01	
Convolvulus ?remotus			0.02	
Convolvulus ?remotus			0.02	
Corchorus tridens		5	0.05	
Cucumis maderaspatanus		10	0.05	
Dysphania rhadinostachya Eriachne mucronata		10 20	0.01	
Evolvulus alsinoides var. ville	osicalvx	15	0.01	
Gomphrena affinis subsp. pilbarensis		15	0.02	
Ipomoea muelleri		15	0.02	
Malvastrum americanum		15	0.05	
Nicotiana occidentalis subsp. obliqua		30	0.01	
Portulaca oleracea		5	0.01	
Psydrax latifolia		800	1	
Ptilotus obovatus var. obovatus		50	0.02	
Senna artemisioides subsp. oligophylla		40	0.02	
Senna notabilis		10	0.01	
Sida platycalyx		10	0.01	
Spermacoce brachystema		15	0.05	
Sporobolus australasicus		10	0.01	1





Plot:	C054	Camera	Chris	
Date:	3-Apr	Photo #	516-517	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit	1 477 1	
Initials revisit:	N/A	Soils	loamy gravel	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	Tod brown	
	743066			
NW Easting:		Outcrop:		
NW Northing:	7502224	Outcrop Type:		
SE Easting:	743116	Litter cover (%)		Т
SE Northing:	7502174	Logs	Twigs	Leaves
Topography:			1	1
Aspect:	flat	STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	150-400	7
Disturbance:	low	Lower	25842	5
Condition:	excellent	Bare ground (%):	95	
Observations				
Species	'	Height (cm)	% AC	% DC
Abutilon otocarpum		20	0.01	
Acacia ?aneura		400	4	
Acacia ?synchronicia			3	
Acacia xiphophylla		150	0.05	
Aristida contorta		20	0.01	
Boerhavia coccinea		10	0.05	
Cenchrus ciliaris		20	0.02	
Cleome viscosa		40	0.5	
Corchorus tridens		10	0.02	
Enchylaena tomentosa		30	0.01	
Enneapogon polyphyllus		20	0.02	
Eragrostis setifolia		40	0.1	
Eragrostis setifolia		20	0.1	
Euphorbia australis		5	0.01	
Euphorbia biconvexa	nilharanaia	10	0.01	
Gomphrena affinis subsp Goodenia muelleriana	o. piibarerisis	15	0.01	
	<u> </u>	5	0.1	
Heliotropium heteranthum		5	0.01	
Portulaca oleracea Ptilotus aervoides		10	0.02	
		5 30	0.01	
Rhagodia eremaea Salsola australis		30	2	
Sclerolaena cornishiana		15	0.1	
Senna notabilis			0.1	
Sida fibulifera		10	0.01	
Sida platycalyx		5	0.01	
Solanum lasiophyllum		30	0.5	
Sporobolus australasicus		15	0.02	
Tragus australianus		10	0.01	





Plot:	C055	Camera	Chris	
Date:	3-Apr	Photo #	519-520	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	loamy clay gra	avel
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	743953	Outcrop:		
NW Northing:	7503567	Outcrop Type:		
SE Easting:	744003	Litter cover (%)		
SE Northing:	7503517	Logs	Twigs	Leaves
Topography:	flat	0.5	0.5	0.5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	200-1200	40
Time since fire (yrs):	40824	Mid		
Disturbance:	low	Lower	50	4
Condition:	excellent	Bare ground (%):	95	
Observations	heavily grazed by	cattle		
Species		Height (cm)	% AC	% DC
Abutilon lepidum		20	0.01	
Acacia ?aneura		1000	39	
Acacia ?synchronicia		300	0.5	
Acacia tetragonophylla		150	0.1	
Cenchrus ciliaris		40	1	
Cleome viscosa		40	0.05	
Corchorus tridens		10	0.1	
Cucumis maderaspatanus			0.05	
Eragrostis setifolia		20	1	
Iseilema membranaceum		20	0.01	
Operculina aequisepala			0.01	
Psydrax latifolia		300	0.5	
Ptilotus obovatus var. obova	tus	30	0.05	
Senna notabilis		20	0.1	
Sporobolus australasicus		20	0.5	





Plot:	C056	Camera	(Chris	
Date:	3-Apr	Photo #	,	522-523	
Date revisit:	N/A	Camera revisit		N/A	
Initials:	mf ch	Photo # revisit			
Initials revisit:	N/A	Soils		loam clay gra	vel
Zone:	50	Soil colour:		red brown	
Datum:	GDA	Soil comments:		evidence of s	heet water
NW Easting:	743756	Outcrop:			
NW Northing:	7505194	Outcrop Type:			
SE Easting:	743806	Litter cover (%)			
SE Northing:	7505144	Logs		Twigs	Leaves
Topography:			0.5	2	2
Aspect:	flat	STRATA		Ht (cm)	% Cover
Slope:		Upper		200-1000	20
Time since fire (yrs):	5	Mid		300	5
Disturbance:	low	Lower		160	6
Condition:	very good	Bare ground (%):		90	
Observations	Heavily grazed	d by cattle			
Species	•	Height (cm)	(% AC	% DC
Abutilon lepidum		15		0.01	
Acacia ?aneura		1000		20	
Acacia ?synchronicia		300		5	
Acacia tetragonophylla		300		0.1	
Acacia xiphophylla		400		0.01	
Boerhavia coccinea		10		0.01	
Cenchrus ciliaris		50		2	
Chrysopogon fallax		70		2	
Cleome viscosa		30		0.05	
Corchorus tridens		15		0.1	
Enchylaena tomentosa		20		0.01	
Eragrostis setifolia		30		1	
Eriachne mucronata		20		0.5	
Maireana planifolia		30		0.01	
Poaceae sp.		20		0.01	
Psydrax latifolia		300		0.1	
Ptilotus obovatus var. obov		40	40 0.02		
Senna artemisioides subsp	o. oligophylla	200 0.05			
Sporobolus australasicus		15		0.05	





Plot:	C057	Camera	Chris	
Date:	3-Apr	Photo #	525-526	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	743667	Outcrop:		
NW Northing:	7507419	Outcrop Type:		
SE Easting:	743717			
		Litter cover (%)		
SE Northing:	7507369	Logs	Twigs	Leaves
Topography:	lower slope		3	7
Aspect:	se	STRATA	Ht (cm)	% Cover
Slope:	>5	Upper	1000	5
Time since fire (yrs):	5	Mid	400	5
Disturbance:	low	Lower	80	70
Condition:	very good	Bare ground (%):	20	
Observations	heavily grazed by		1	
Species		Height (cm)	% AC	% DC
Acacia ?aneura		800	1	
Acacia ?synchronicia		300	0.5	
Acacia tetragonophylla		300	1	
Alternanthera nodiflora		15	0.01	
Bidens bipinnata		20	0.05	
Blumea tenella		20	2	
Cenchrus ciliaris		70	5	
Centipeda minima subsp.	macrocepnaia	5	0.02	
Chrysopogon fallax		70	0.01	
Cleome viscosa Corchorus tridens		40 15	0.01	
Cucumis maderaspatanus		15	0.01	
Cyperus iria		10	0.01	
Eragrostis tenellula		15	0.02	
Eremophila longifolia		200	0.05	
Eriachne benthamii		40	40	
Eucalyptus victrix		1000	4	
Eulalia aurea		30	0.1	
Euphorbia australis		2	0.01	
Euphorbia tannensis subs	p. eremophila	15	0.01	
Fimbristylis microcarya	pr or orrespond	10	0.2	
Ipomoea muelleri		-	0.5	
Lotus australis		10	0.1	
Malvastrum americanum		15	1	
Mimulus gracilis		25	2	
Neptunia dimorphantha		10	0.01	
Nicotiana occidentalis subsp. obliqua		40	0.01	
Operculina aequisepala			0.01	
Psydrax latifolia		400	0.1	
Ptilotus obovatus var. obovatus		40	0.1	
Rhagodia eremaea		40 20	0.01	
Senna notabilis Solanum lasiophyllum		40	0.01	
Sporobolus australasicus		15	0.01	
Vachellia farnesiana		300	4	
- some familiaria		1	<u> </u>	<u> </u>





Plot:	C058	Camera	Chris	_
Date:	4-Apr	Photo #	528-529	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	743148	Outcrop:		
NW Northing:	7508913	Outcrop Type:		
SE Easting:	743198	Litter cover (%)		
SE Northing:	7508863	Logs	Twigs	Leaves
Topography:	flat		5	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	300	5
Disturbance:	low	Lower	60	50
Condition:	very good	Bare ground (%):	35	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?aneura		300	0.1	
Acacia ?synchronicia		300	5	
Atriplex amnicola		60	0.1	
Boerhavia coccinea		5	0.02	
Cenchrus ciliaris		60	40	
Cleome viscosa		30	0.2	
Corchorus tridens		15	0.5	
Eragrostis setifolia		15	2	
Euphorbia australis		2	0.01	
Goodenia muelleriana		5	0.05	
Operculina aequisepala		10	0.01	
Portulaca oleracea		5	0.1	
Ptilotus obovatus var. obovatus		40	0.5	
Salsola australis		30	0.1	
Sclerolaena ?deserticola		15	0.2	
Senna artemisioides subsp. oligophylla		15	0.01	
Sida fibulifera		5	0.01	
Solanum lasiophyllum		40	0.1	
Sporobolus australasicus		15	2	
Trianthema triquetra		5	0.1	
Vachellia farnesiana		180	0.2	





Plot:	C059	Camera	Chris	
Date:	4-Apr	Photo #	531-532	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	gravelly surfa	ace rock
NW Easting:	743550	Outcrop:		
NW Northing:	7509641	Outcrop Type:		
SE Easting:	743600	Litter cover (%)		
SE Northing:	7509591	Logs	Twigs	Leaves
Topography:	flat		2	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	, ,	
Time since fire (yrs):	5	Mid	350	5
Disturbance:	low	Lower	30	5
Condition:	excellent	Bare ground (%):	90	
Observations	Gravel plain		•	•
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		250	0.5	
Acacia tetragonophylla		70	0.1	
Acacia xiphophylla		30	4	
Atriplex amnicola		770	0.1	
Boerhavia coccinea		10	0.01	
Boerhavia coccinea		10	0.01	
Cenchrus ciliaris		60	0.5	
Cleome viscosa		15	0.05	
Dactyloctenium radulans		15	0.05	
Gomphrena affinis subsp.	pilbarensis	15	0.05	
Goodenia muelleriana		5	0.01	
Heliotropium heteranthum		5	0.01	
Lepidium pholidogynum		5	0.05	
Portulaca oleracea		5	0.01	
Salsola australis		15	1	
Sclerolaena ?deserticola		10	0.05	
Sclerolaena cuneata		5	2	
Sporobolus australasicus		15	0.05	
Trianthema triquetra		5	1	
Tribulus astrocarpus		10	0.05	





Plot:	C060	Camera	Chris	
Date: 4-Apr		Photo #	534-535	
Date revisit:	N/A	Camera revisit	N/A	
Initials:	mf ch	Photo # revisit		
Initials revisit:	N/A	Soils	loam clay	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	744423	Outcrop:		
NW Northing:	7509503	Outcrop Type:		
SE Easting:	744473	Litter cover (%)		
SE Northing:	7509453	Logs	Twigs	Leaves
Topography:	flat	2	10	20
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	60
Time since fire (yrs):	5	Mid	400	10
Disturbance:	low	Lower	100	50
Condition:	very good	Bare ground (%):	20	
Observations	heavily grazed by	cattle		
Species	•	Height (cm)	% AC	% DC
Abutilon lepidum		30	0.05	
Acacia ?aneura		1000	60	
Acacia ?synchronicia		300	3	
Acacia tetragonophylla		400	6	
Bidens bipinnata		30	1	
Blumea tenella		20	2	
Cenchrus ciliaris		70	15	
Centipeda minima subsp. macrocephala		10	0.01	
Chrysopogon fallax		120	15	
Cleome viscosa		50	0.1	
Corchorus tridens		20	2 0.5	
Cucumis maderaspatanus Duperreya commixta			0.5	
Eremophila longifolia		400	1	
Evolvulus alsinoides var. villosicalyx		30	0.01	
Fimbristylis microcarya		10	0.05	
Ipomoea coptica			0.05	
Ipomoea muelleri		15	0.05	
Malvastrum americanum		20	1	
Psydrax latifolia		500	1	
Ptilotus gomphrenoides		15	0.01	
Rostellularia adscendens v		20	0.05	
Senna artemisioides subsp	o. oligophylla	200	0.1	
Spermacoce brachystema		20	0.01	
Vachellia farnesiana		200	0.1	





Date revisit: Jul-11	Plot:	C061	Camera	Chris	
Date revisit: Jul-11					
Initials:	Date revisit:				
Soil colour: Fed brown Soil colour: Fed brown Soil colour: Fed brown Soil comments: Williams Falsage Colour Falsage Fals	Initials:		Photo # revisit	,	
Soil colour: Fed brown Soil colour: Fed brown Soil colour: Fed brown Soil comments: Williams Falsage Colour Falsage Fals	Initials revisit:	CH/BN	Soils	loam	
Datum: GDA Soil comments: NW Easting: 743988 Outcrop:				red brown	
NW Northing: 743898				100 210 1111	
New Northing: 7489150 Outcrop Type: SE Easting: 743948 Litter cover (%) SE Northing: 7489100 Logs Twigs Leaves Topography: flat					
SE Easting: 743948			•		
SE Northing: 7489100 Logs Twigs Leaves					
Topography: flat			` '		
STRATA				ŭ	
Slope: Upper	Topography:	flat	2	4	6
Time since fire (yrs): 5	Aspect:		STRATA	Ht (cm)	% Cover
Disturbance: Iow Lower 100 10	Slope:		Upper	800	35
Excellent Bare ground (%): 80	Time since fire (yrs):	5	Mid		
Name	Disturbance:	low	Lower	100	10
Name	Condition:	excellent	Bare ground (%):	80	
Species			_		
Abutilon lepidum		1	Height (cm)	% AC	% DC
Acacia ?aneura 800 35 Bidens bipinnata 30 0.01 Boerhavia burbidgeana 5 0.01 Boerhavia coccinea 5 0.01 Bulbostylis barbata 5 0.01 Cenchrus ciliaris 60 1 Cenchrus setiger 30 0.01 Chelainthes sieberi subsp. sieberi 15 0.1 Chloris pectinata 15 0.1 Chloris pectinata 15 0.1 Chlorysopogon fallax 120 1 Cleome viscosa 40 0.01 Corchorus tridens 15 0.05 Corchorus tridens 15 0.05 Corchorus tridens 15 0.05 Coucumis maderaspatanus 0.01 Dactyloctenium radulans 15 0.05 Dipteracanthus australasicus subsp. australasicus 15 0.2 Enchylaena tomentosa 30 0.01 Enneapogon polyphyllus 20 0.02 Enteropogon ramosus 20 0.01 Erargostis cumingii 15 0.1 Eremophila glabra 15 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx 15 0.1 Eremophila granifinis subsp. pilbarensis 20 0.01 Bailema membranaceum 5 0.01 Maireana planifolia 30 0.2 Nicotiana occidentalis subsp. obliqua 20 0.01 Polycapaea corymbosa 10 0.1 Polycapaea corymbosa 5 0.01 Portulaca oleracea 5 0.01 Portulaca oleracea 5 0.01 Poltiotus fusifiomis 16 0.01 Petrocaulon spheranthoides 20 0.01 Petrocaulon spheranthoides 20 0.01 Petrocaulon spheranthoides 20 0.01 Petrocaulon spheranthoides subsp. helmsii 60 0.02 Sida playcalyx 10 0.02 Sida playcalyx 10 0.02 Sida p. verrucose glands (F.H. Mollemans 2423) Spermacoce brachystema 20 0.02 Sporbobus australasicus 15 0.1	-				
Bidens bipinnata 30					
Boerhavia burbidgeana					
Boerhavia coccinea					
Bulbostylis barbata					
Cenchrus setiger 30 0.01 Cenchrus setiger 30 0.01 Chellanthes sieberi subsp. sieberi 15 0.1 Chloris pectinata 15 0.1 Chloris pectinata 15 0.1 Chrysopogon fallax 120 1 Cleome viscosa 40 0.01 Corchorus tridens 15 0.05 Cucumis maderaspatanus 0.01 0.01 Dactyloctenium radulans 15 0.05 Dipteracanthus australasicus subsp. australasicus 15 0.05 Dipteracanthus australasicus subsp. australasicus 15 0.02 Enchylaena tomentosa 30 0.01 0.02 Ennchylaena tomentosa 30 0.01 0.02 Entenchylaena tomentosa 30 0.01 0.02 Entenchylaena tomentosa 30 0.01 0.02 Enterpopon ramosus 20 0.01 0.01 Eragrostis cumingii 15 0.1 0.1 Eremophila glabra 15 0.1					
Cenchrus setiger 30 0.01 Cheilanthes sieberi subsp. sieberi 15 0.1 Chloris pectinata 15 0.1 Chrysopogon fallax 120 1 Cleome viscosa 40 0.01 Corchorus tridens 15 0.05 Cucumis maderaspatanus 0.01 0.01 Dactyloctenium radulans 15 0.05 Dipteracanthus australasicus subsp. australasicus 15 0.2 Enchylaena tomentosa 30 0.01 Enneapogon polyphyllus 20 0.02 Enteropogon ramosus 20 0.01 Eragrostis cumingii 15 0.1 Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 20 0.01 Seilema membranaceum 5 0.01 Maireana planifolia 30 0.2 Nicotiana occidentalis subsp. obliqua 20 0.01 </td <td></td> <td></td> <td></td> <td></td> <td></td>					
Cheilanthes sieberi subsp. sieberi 15					
Chloris pectinata					
Chrysopogon fallax 120 1 Cleome viscosa 40 0.01 Corchorus tridens 0.05 0.05 Cucumis maderaspatanus 0.01 0.05 Dactyloctenium radulans 15 0.05 Dipteracanthus australasicus subsp. australasicus 15 0.2 Enchylaena tomentosa 30 0.01 Enneapogon polyphyllus 20 0.02 Enneapogon ramosus 20 0.01 Erneropogon ramosus 20 0.01 Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila forrestii ?subsp. pilbarensis 20 0.01 Gomphrena affinis subsp. pilbarensis 20 0.01 Iseilema membranaceum 5 0.01 Micotiana cacidentalis 30s.0 0.2	•				
Cleome viscosa	·				
Corchorus tridens 15 0.05 Cucumis maderaspatanus 0.01 Dactyloctenium radulans 15 0.05 Dipteracanthus australasicus subsp. australasicus 15 0.2 Enchylaena tomentosa 30 0.01 Enneapogon polyphyllus 20 0.02 Enteropogon ramosus 20 0.01 Eragrostis cumingii 15 0.1 Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila forestii ?subsp. forrestii 140 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx				0.01	
Dactyloctenium radulans	Corchorus tridens				
Dactyloctenium radulans	Cucumis maderaspatanus			0.01	
Enchylaena tomentosa 30 0.01 Enneapogon polyphyllus 20 0.02 Enteropogon ramosus 20 0.01 Eragrostis cumingii 15 0.1 Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx			15	0.05	
Enneapogon polyphyllus 20 0.02 Enteropogon ramosus 20 0.01 Eragrostis cumingii 15 0.1 Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx	Dipteracanthus australasicus s	subsp. <i>australasicus</i>	15	0.2	
Enteropogon ramosus 20 0.01 Eragrostis cumingii 15 0.1 Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 20 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 30 0.2 Nicotiana occidentalis subsp. obliqua 20 0.01 Perotis rara 10 0.1 Polycarpaea corymbosa 10 0.1 Portulaca oleracea 5 0.01 Portulaca pilosa 5 0.02 Psydrax latifolia 300 0.1 Pterocaulon sp. 15 0.05 Pterocaulon sphaeranthoides 20 0.01 Ptilotus fusiformis 16 0.01 Ptilotus obovatus var. obovatus 60 1 Selarolaena cornishiana 15 0.01 Senna artemisioides subsp. helmsii 60 0.02 <	Enchylaena tomentosa		30	0.01	
Enteropogon ramosus 20 0.01 Eragrostis cumingii 15 0.1 Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 20 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 30 0.2 Nicotiana occidentalis subsp. obliqua 20 0.01 Perotis rara 10 0.1 Polycarpaea corymbosa 10 0.1 Portulaca oleracea 5 0.01 Portulaca pilosa 5 0.02 Psydrax latifolia 300 0.1 Pterocaulon sp. 15 0.05 Pterocaulon sphaeranthoides 20 0.01 Ptilotus fusiformis 16 0.01 Ptilotus obovatus var. obovatus 60 1 Selarolaena cornishiana 15 0.01 Senna artemisioides subsp. helmsii 60 0.02 <	Enneapogon polyphyllus		20	0.02	
Eragrostis cumingii 15 0.1 Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 20 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 30 0.2 Nicotiana occidentalis subsp. obliqua 20 0.01 Perotis rara 10 0.1 Polycarpaea corymbosa 10 0.1 Portulaca oleracea 5 0.01 Portulaca pilosa 5 0.02 Psydrax latifolia 300 0.1 Perocaulon sp. 15 0.05 Pterocaulon sphaeranthoides 20 0.01 Ptilotus fusiformis 16 0.01 Ptilotus obovatus var. obovatus 60 1 Senna artemisioides subsp. helmsii 60 0.02 Senna artemisioides subsp. oligophylla 200 0.02 Sida sp. verrucose glands (F.H. Mollemans 2423) 0.02 <	Enteropogon ramosus		20	0.01	
Eremophila forrestii ?subsp. forrestii 140 0.1 Eremophila glabra 15 0.1 Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 20 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 30 0.2 Nicotiana occidentalis subsp. obliqua 20 0.01 Perotis rara 10 0.1 Polycarpaea corymbosa 10 0.1 Portulaca oleracea 5 0.01 Portulaca pilosa 5 0.02 Psydrax latifolia 300 0.1 Pterocaulon sp. 15 0.05 Pterocaulon sphaeranthoides 20 0.01 Ptilotus fusiformis 16 0.01 Ptilotus obovatus var. obovatus 60 1 Selerolaena cornishiana 15 0.01 Senna artemisioides subsp. helmsii 60 0.02 Senna artemisioides subsp. oligophylla 200 0.02 Sida sp. verrucose glands (F.H. Mollemans 2423) Spermacoc					
Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 20 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 30 0.2 Nicotiana occidentalis subsp. obliqua 20 0.01 Perotis rara 10 0.1 Polycarpaea corymbosa 10 0.1 Portulaca oleracea 5 0.01 Portulaca pilosa 5 0.02 Psydrax latifolia 300 0.1 Pterocaulon sp. 15 0.05 Pterocaulon sphaeranthoides 20 0.01 Ptilotus fusiformis 16 0.01 Ptilotus obovatus var. obovatus 60 1 Sclerolaena cornishiana 15 0.01 Senna artemisioides subsp. helmsii 60 0.02 Senna artemisioides subsp. oligophylla 200 0.02 Sida sp. verrucose glands (F.H. Mollemans 2423) 0.02 Spermacoce brachystema 20 0.02 Sporobolus australasicus 15 0.1 <td colspan="2">Eremophila forrestii ?subsp. forrestii</td> <td></td> <td></td> <td></td>	Eremophila forrestii ?subsp. forrestii				
Evolvulus alsinoides var. villosicalyx 0.01 Gomphrena affinis subsp. pilbarensis 20 0.01 Iseilema membranaceum 5 0.01 Maireana planifolia 30 0.2 Nicotiana occidentalis subsp. obliqua 20 0.01 Perotis rara 10 0.1 Polycarpaea corymbosa 10 0.1 Portulaca oleracea 5 0.01 Portulaca pilosa 5 0.02 Psydrax latifolia 300 0.1 Pterocaulon sp. 15 0.05 Pterocaulon sphaeranthoides 20 0.01 Ptilotus fusiformis 16 0.01 Ptilotus obovatus var. obovatus 60 1 Sclerolaena cornishiana 15 0.01 Senna artemisioides subsp. helmsii 60 0.02 Senna artemisioides subsp. oligophylla 200 0.02 Sida sp. verrucose glands (F.H. Mollemans 2423) 0.02 Spermacoce brachystema 20 0.02 Sporobolus australasicus 15 0.1 <td colspan="2"></td> <td>15</td> <td>0.1</td> <td></td>			15	0.1	
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Sporobolus australasicus 15 0.1		H. Mollemans 2423)			
Tragus australianus 15 0.01					
	Tragus australianus		15	0.01	

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Triodia epactia 100	2	





Plot:	C062	Camera	Chris	
Date:	4-Apr	Photo #	540-541	
date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	741107	Outcrop:		
NW Northing:	7490093	Outcrop Type:		
SE Easting:	741157	Litter cover (%)		
SE Northing:	7490043	Logs	Twigs	Leaves
Topography:	flat	_	2	3
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	3	Mid	300	3
Disturbance:	low	Lower	80	40
Condition:	excellent	Bare ground (%):	55	
Observations				
Species		Height (cm)	% AC	% DC
Acacia inaequilatera		300	1	
Acacia pachyacra		170	0.2	
Acacia pruinocarpa		300	2	
Aristida holathera var. hola	thera	20	0.05	
Cenchrus ciliaris		60	1	
Chrysopogon fallax		130	0.5	
Corchorus sidoides subsp.	sidoides	15	0.01	
Eragrostis eriopoda		30	0.5	
Eremophila longifolia		50	0.05	
Euphorbia australis		15	0.01	
Gossypium australe Grevillea wickhamii subsp.	hionidulo	30	1	
Hibiscus sturtii var. platych		200	0.2	
Mollugo molluginea	arriys	აე	0.01	
Senna artemisioides subsp	. helmsii	40		
Senna glutinosa subsp. glu		160	0.01	
Senna notabilis		20	0.05	
Solanum lasiophyllum		40	0.5	
Triodia epactia		80	35	
		1	-	





Plot:	C063	Camera	Chris	
Date:	4-Apr	Photo #	543-544	
Date revisit: Jul-11		Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam clay	
			-	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	741264	Outcrop:		
NW Northing:	7490817	Outcrop Type:		
SE Easting:	741314	Litter cover (%)		
SE Northing:	7490767	Logs	Twigs	Leaves
Topography:	flat	2		6
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	800	35
Time since fire (yrs):	3	Mid	000	- 55
Disturbance:	low	Lower		5
		==	0.5	5
Condition:	excellent	Bare ground (%):	85	
Observations	<u> </u>	Turia e	lor A C	0/ 50
Species		Height (cm)	% AC	% DC
Abutilon lepidum		15	0.05	
Acacia ?aneura		800	30	
Acacia pruinocarpa		800	5	
Bidens bipinnata		20	0.05	
Boerhavia burbidgeana		5	0.05	
Boerhavia coccinea		5	0.01	
Bulbostylis barbata		5	0.01	
Calotis squamigera		15	0.01	
Cenchrus ciliaris			0.1	
Cheilanthes sieberi subsp. sieb	peri	5	0.01	
Chloris pectinata		20	0.01	
Chrysopogon fallax		120	1	
Cleome viscosa			0.01	
Corchorus sidoides subsp. sido	oides	15	0.05	
Corchorus tridens		5	0.05	
Cucumis maderaspatanus			0.05	
Dactyloctenium radulans		15	0.01	
Dysphania rhadinostachya		15	0.01	
Enneapogon polyphyllus		20	0.05	
Eragrostis cumingii		30	0.5	
Eragrostis tenellula			0.01	
Eremophila forrestii ?subsp. forrestii		60	0.1	
Eremophila lanceolata		40	0.2	
Eremophila longifolia		150	0.05	
Euphorbia australis		15	0.01	
Euphorbia tannensis subsp. ere		45	0.01	
Evolvulus alsinoides var. villosi	calyx	15	0.02	
Goodenia muelleriana		5	0.01	
Maireana planifolia		20 30	0.01 0.01	
Nicotiana occidentalis subsp. obliqua		20	0.05	
Paspalidium rarum Perotis rara		15	0.03	
Polycarpaea corymbosa		15	0.02	
Portulaca oleracea		5	0.01	
Portulaca oleracea Portulaca pilosa		5	0.01	
Psydrax latifolia		200	0.1	
Pterocaulon sphaeranthoides		10	0.01	
Ptilotus obovatus			0.01	
Senna artemisioides subsp. olig	gophylla	60	0.1	
Senna notabilis		15	0.05	
Sida platycalyx		5	0.05	
Solanum lasiophyllum		20	0.05	
Sporobolus australasicus		15	0.01	
	·			

Triodia epactia 70 1				
	Triodia epactia	70	1	





Plot:	C064	Camera	Chris	
Date:	5-Apr	Photo #	546-547	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	742681	Outcrop:		
NW Northing:	7493079	Outcrop Type:		
SE Easting:	742731	Litter cover (%)		
SE Northing:	7493029	Logs	Twigs	Leaves
Topography:	slight slope			5
Aspect:	w	STRATA	Ht (cm)	% Cover
Slope:	>5	Upper		
Time since fire (yrs):	3	Mid	270	20
Disturbance:	low	Lower	120	50
Condition:	excellent	Bare ground (%):	45	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		200	0.1	
Acacia ancistrocarpa		300	0.1	
Acacia dictyophleba		250	18	
Acacia inaequilatera		300	1	
Acacia pachyacra		80	0.1	
Acacia pruinocarpa		200	0.5	
Atalaya hemiglauca		170	0.1	
Cenchrus ciliaris		60	10	
Cenchrus setiger		40	0.1	
Corchorus sidoides subsp. sidoides		30	0.02	
Eragrostis eriopoda		30	0.02	
Gossypium australe		40	0.05	
Hakea lorea subsp. lorea		350	0.5	
Senna artemisioides subsp. oligophylla		15	0.01	
Solanum lasiophyllum		40	0.5	
Stylobasium spathulatum		200	0.1	
Triodia epactia		120	35	





Plot	C065	Camera	Chris	
Date:	5-Apr	Photo #	549-550	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	Gravelly loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	creek rocks in	channels
NW Easting:	743155	Outcrop:		
NW Northing:	7492983	Outcrop Type:		
NE Easting:	743176	Litter cover (%)		
NE Northing:	7492974	Logs	Twigs	Leaves
SW Easting:	743101	1	2	3
SW Northing:	7492932	STRATA	Ht (cm)	% Cover
SE Easting:	743125	Upper	900	5
SE Northing:	7492915	Mid	400	10
Topography	Creekline	Lower	130	45
Aspect:	sw	Bare ground (%):	50	
Slope:	5	5		
Time since fire (yrs):	5			
Disturbance	low			
Condition	excellent			
Observations	Plot size changed	to 25m by 75m to survey	creekline.	
Species		Height (cm)	% AC	% DC
Acacia citrinoviridis		900	5	
Acacia dictyophleba		300	5	
Acacia pyrifolia var. ?morr		250	3	
Acacia sclerosperma subs	sp. sclerosperma	250	2	
Atalaya hemiglauca		300	0.1	
Cenchrus ciliaris		60 40	40	
Corchorus crozophorifolius Euphorbia australis	<u> </u>	2	0.05	
Gossypium australe		50	0.03	
Hakea lorea subsp. lorea		600	0.1	
Indigofera monophylla		40	0.5	
Phyllanthus maderaspatensis		10	0.01	
	Phyllanthus maderaspatensis		0.01	
Rhynchosia minima			0.01	
Solanum lasiophyllum		40	0.05	
Sporobolus australasicus		10	0.01	
Triodia epactia		120	4	





Plot:	C066	Camera	Chris	
Date:	5-Apr	Photo #	552-553	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	surface grave	l rock
NW Easting:	744362	Outcrop:		
NW Northing:	7494039	Outcrop Type:		
SE Easting:	744412	Litter cover (%)		
SE Northing:	7493989	Logs	Twigs	Leaves
Topography:	flat			1
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	130	1
Disturbance:	low	Lower	30	1
Condition:	excellent	Bare ground (%):	98	
Observations	tions Open clay pan			
Species		Height (cm)	% AC	% DC
Acacia ?aneura		130	0.8	
Acacia ?synchronicia		80	0.2	
Boerhavia burbidgeana		5	0.01	
Cleome oxalidea		5	0.01	
Cleome viscosa		20	0.05	
Dactyloctenium radulans		15	0.05	
Dysphania kalpari		15	0.01	
Enneapogon polyphyllus		15	0.05	
Eriachne pulchella subsp. ,		10	0.01	
Gomphrena affinis subsp.	pilbarensis	15	0.05	
Goodenia muelleriana		5	0.1	
Heliotropium heteranthum		5	0.01	
Ipomoea muelleri		10	0.01	
Josephinia eugeniae		5	0.01	
Portulaca oleracea		5	0.05	
Ptilotus aervoides		3	0.01	
Ptilotus helipteroides		10	0.01	
Sclerolaena cornishiana		20	0.01	
Senna notabilis	Senna notabilis		0.05	
Sida platycalyx		5	0.2	
Sporobolus australasicus		15	0.01	
Triodia epactia		120	0.5	





Diet	C067	Comoro	Chric	
Plot:	C067	Camera Photo #	Chris	
Date: Date revisit:	5-Apr Jul-11	Camera revisit	559-560	
			bronwyn	
Initials:	mf ch	Photo # revisit	la ana alau	
Initials revisit:	CH/BN	Soils	loam clay	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	742220	Outcrop:		
NW Northing:	7494650	Outcrop Type:		
SE Easting:	742270	Litter cover (%)		
SE Northing:	7494600	Logs	Twigs	Leaves
Topography:	flat	2	5	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	40
Time since fire (yrs):	5	Mid	500	5
Disturbance:	low	Lower	120	30
Condition:	excellent	Bare ground (%):	53	
Observations	mildly grazed by	cattle		
Species	•	Height (cm)	% AC	% DC
Abutilon lepidum		20	0.01	
Abutilon macrum		15	0.05	
Acacia ?aneura		1000	40	
Acacia ?synchronicia		300	1	
Acacia inaequilatera		300	0.5	
Acacia tetragonophylla		300	0.1	
Bidens bipinnata		20	0.01	
Blumea tenella		15	0.05	
Boerhavia burbidgeana		5	0.01	
Boerhavia coccinea		5	0.01	
Bulbostylis barbata		5 40	0.1	
Cenchrus ciliaris Cheilanthes sieberi subsp. s	ieheri	10	0.01 0.01	
Chloris pectinata	lebell	20	0.01	
Chrysopogon fallax		120	5	
Cleome viscosa		30	0.05	
Corchorus tridens		5	0.1	
Cucumis maderaspatanus			0.05	
Dactyloctenium radulans		15	0.05	
Digitaria ctenantha		20	0.05	
Dysphania rhadinostachya		15	0.01	
Enneapogon polyphyllus		25	0.01	
Eragrostis crateriformis		20	0.01	
Eragrostis cumingii		30	1	
Eragrostis setifolia		20	0.05	
Eremophila forrestii ?subsp.	forrestii	80	1	
Eremophila longifolia	ooioolus:	250	0.1	
Evolvulus alsinoides var. vill Fimbristylis depauperata	usicalyX	15 10	0.01	
Ipomoea muelleri		10	0.5	
Iseilema membranaceum		5	0.05	
Maireana planifolia		30	0.05	
Nicotiana occidentalis subsp	. obliqua	30	0.1	
Paspalidium rarum		20	0.05	
Perotis rara		20	1	
Poaceae sp. 1		45	15	
Polycarpaea corymbosa		20	0.05	
Portulaca pilosa Psydrax latifolia		20 800	0.01 3	
Pterocaulon sp.		30	0.1	
Pterocaulon sphaeranthoides	3	30	0.1	
Senna notabilis		15	0.01	
Sida fibulifera		10	0.01	
Sida platycalyx		5	0.05	
Spermacoce brachystema		15	0.01	
Sporobolus australasicus		15	0.05	
Tephrosia sp.		30	0.01	
Triodia epactia		120	0.2	





Plot:	C068	Camera	Chris	
Date:	5-Apr	Photo #	565-566	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam clay	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	731000	Outcrop:		
NW Northing:	7500426	Outcrop Type:		
SE Easting:	731050	Litter cover (%)		
SE Northing:	7500376	Logs	Twigs	Leaves
Topography:	flat		5	5
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	1000	15
Time since fire (yrs):	5	Mid	300	1
Disturbance:	low	Lower	80	80
Condition:	very good	Bare ground (%):	10	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		300	1	
Acacia ancistrocarpa		300	0.1	
Acacia aptaneura		800	2	
Acacia citrinoviridis		1000	10	
Acacia citrinoviridis				
Acacia dictyophleba		110	0.05	
Acacia inaequilatera		300	0.1	
Acacia pruinocarpa		1000	2	
Cenchrus ciliaris		60	60	
Cenchrus setiger		60	15	
Chrysopogon fallax		120	2	
Cleome viscosa		30	0.05	
Corchorus sp.		155	0.05	
Corchorus tridens		155	0.5	
Cullen leucanthum		160	0.1	
Eulalia aurea		40	1	
Gossypium australe		15	0.01	
Ipomoea muelleri			0.05	
Portulaca oleracea		5	0.01	
Salsola australis		20	0.05	
Senna artemisioides subsp.	oligophylla	20	0.05	
Sporobolus australasicus		30	0.02	





Plot:	C069	Camera	Chris	
Date:	5-Apr	Photo #	568-569	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	clay loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:	some open c	lay pans
NW Easting:	731204	Outcrop:		
NW Northing:	7501403	Outcrop Type:		
SE Easting:	731254	Litter cover (%)		
SE Northing:	7501353	Logs	Twigs	Leaves
Topography:	flat		2	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	800	5
Time since fire (yrs):	5	Mid	300	20
Disturbance:		Lower	80	40
Condition:	low	Bare ground (%):	48	
Observations	very good		•	•
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		300	15	
Acacia aptaneura		800	4	
Acacia pruinocarpa		250	0.02	
Acacia sclerosperma subsp.	sclerosperma	250	2	
Aristida holathera		20	0.01	
Atalaya hemiglauca		300	0.1	
Boerhavia coccinea			0.02	
Cenchrus ciliaris		80	35	
Cenchrus setiger		80	5	
Cleome viscosa		30	0.05	
Corchorus tridens		15	0.1	
Corymbia hamersleyana		800	1	
Dysphania rhadinostachya		10	0.01	
Eulalia aurea		50	0.01	
Gossypium australe		40	0.01	
Hakea lorea subsp. lorea		400	1	
Portulaca ?cyclophylla		5	0.01	
Salsola australis		30	0.05	
Sclerolaena cornishiana		20	0.01	
Senna artemisioides subsp.	oligophylla	30	0.05	
Senna notabilis		2	0.01	
Vachellia farnesiana		130	0.1	





Plot:	C070	Camera	Chris	
Date:	5-Apr	Photo #	571-572	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	loam	
Zone:	50	Soil colour:	red brown	
Datum:	GDA	Soil comments:		
NW Easting:	730767	Outcrop:		
NW Northing:	7501613	Outcrop Type:		
SE Easting:	730817	Litter cover (%)		
SE Northing:	7501563	Logs	Twigs	Leaves
Topography:	flat		5	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	900	5
Time since fire (yrs):	5	Mid	300	5
Disturbance:	low	Lower	80	35
Condition:	very good	Bare ground (%):	50	
Observations				
Species		Height (cm)	% AC	% DC
Acacia ?synchronicia		300	4	
Acacia aneura		900	3	
Acacia citrinoviridis		400	0.1	
Acacia pruinocarpa		400	0.1	
Atalaya hemiglauca		300	0.1	
Cenchrus ciliaris		80	30	
Cenchrus setiger		80	3	
Chrysopogon fallax		120	0.5	
Cleome viscosa		40	0.05	
Corchorus sidoides subsp. s	sidoides	25	0.01	
Corchorus tridens		15	0.05	
Corymbia hamersleyana		600	2	
Cucumis maderaspatanus			0.01	
Eulalia aurea		40	1	
Gomphrena affinis subsp. pilbarensis		20	0.01	
Hakea lorea subsp. lorea		500	0.5	
Ipomoea muelleri			0.01	
Rhagodia eremaea		40	0.05	
Salsola australis		10	0.01	
Sclerolaena cornishiana		30	0.02	
Senna artemisioides subsp.	oligophylla	40	0.01	
Sporobolus australasicus		15	0.01	





Plot:	C071	Camera	Chris	
Date:	5-Apr	Photo #	574-575	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit	Bronwyn	
Initials revisit:	CH/BN	Soils	loam	
		Soil colour:	red brown	
Zone:	50		rea brown	
Datum:	GDA	Soil comments:		
NW Easting:	729735	Outcrop:		
NW Northing:	7502208	Outcrop Type:		
SE Easting:	729785	Litter cover (%)		_
SE Northing:	7502158	Logs	Twigs	Leaves
Topography:	flat	1	5	10
Aspect:		STRATA	Ht (cm)	% Cover
Slope:		Upper	100	30
Time since fire (yrs):	5	Mid		
Disturbance:	low	Lower	150	25
Condition:	excellent	Bare ground (%):	60	
Observations				
Species	1	Height (cm)	% AC	% DC
Abutilon lepidum		40	0.05	
Acacia ?aneura		1000	20	
Acacia ?synchronicia		70	0.1	
Acacia aneura		500	5	
Acacia citrinoviridis		300	0.1	
Acacia pruinocarpa		600	1	
Acacia sclerosperma subsp. sc	lerosperma	150	0.2	
Amaranthus cuspidifolius		20	0.02	
Amyema fitzgeraldii			0.1	
Atalaya hemiglauca		500	0.5	
Boerhavia repleta		5	0.05	
Cenchrus ciliaris		70	20	
Cenchrus setiger		60	5	
Cheilanthes sieberi subsp. sieb	eri	1	0.01	
Chrysopogon fallax		120	2	
Cleome viscosa		30	0.05	
Convolvulus clementii	idaa	10	0.01	
Corchorus sidoides subsp. sido	naes	30	0.05	
Corchorus tridens		15	0.1	
Corymbia hamersleyana		1000	5	
Cucumis maderaspatanus		40	0.2	
Eremophila lanceolata Evolvulus alsinoides var. villosid	na luv	40	0.01	
	•	16 15	0.01	
Gomphrena affinis subsp. pilba Gossypium robinsonii	I ELISIS	130	0.01 0.05	
Hakea lorea subsp. lorea		500	0.05	
Ipomoea muelleri		000	0.1	
Maireana planifolia		30	0.01	
Portulaca oleracea		5	0.01	
Ptilotus obovatus var. obovatus	·	40	0.05	
Salsola australis		20	0.05	
Senna notabilis		110	0.01	
Solanum lasiophyllum		20	0.01	
Sporobolus australasicus		15	0.01	





Plot:	C072	Camera	Chris	
Date:	6-Apr	Photo #	578-581	
Date revisit:	Jul-11	Camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	sand	
Zone:	50	Soil colour:	brown	
Datum:	GDA	Soil comments:	Consolidated	sand dune
NW Easting:	725957	Outcrop:		
NW Northing:	7506405	Outcrop Type:		
SE Easting:	725990	Litter cover (%)		
SE Northing:	7506350	Logs	Twigs	Leaves
Topography:	sandune crest	- 3-	2	10
1 0 1 7	dune running north west to			
Aspect:	south east	STRATA	Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	200	5
Disturbance:	low	Lower	150	40
Condition:	excellent	Bare ground (%):	50	
Observations	consolidated dune system,	plot size altered to in	clude only the	
Species		Height (cm)	% AC	% DC
Acacia dictyophleba		30	0.05	
Aristida holathera var. ho	olathera	30	0.05	
Bonamia rosea		16	0.2	
Bonamia rosea		20	0.1	
Cenchrus ciliaris		60	0.5	
Corchorus ?elachocarpu		30	0.5	
Corchorus ?elachocarpu		35	0.5	
Crotalaria cunninghamii	subsp. ?	15	0.05	
Eragrostis eriopoda		30	0.1	
Eriachne aristidea		40	0.5	
Eriachne aristidea		40	1	
Hibiscus brachychlaenus	S	20	0.02	
Paraneurachne muelleri		10	0.1	
Scaevola parvifolia subs		30	0.01	
Senna artemisioides sub	osp. helmsii	40	0.05	
Sida sp.		30	0.05	
Stylobasium spathulatun	1	200	5	
Trianthema pilosa		5	0.2	
Triodia schinzii		150	35	





Plot:	C073	Camera	Chris	
Date:	6-Apr	Photo #	583-584	
Date revisit:	Jul-11	camera revisit	Bronwyn	
Initials:	mf ch	Photo # revisit	1	
Initials revisit:	CH/BN	Soils	sandune	
Zone:	50	Soil colour:	brown	
Datum:	GDA	Soil comments:	consolidated	sand dune
NW Easting:	725712	Outcrop:		
NW Northing:	7506290	Outcrop Type:		
SE Easting:	725752	Litter cover (%)		
SE Northing:	7506234	Logs	Twigs	Leaves
Topography:	dune ridge		5	5
- 1 - 3 - 1 - 1	dune ridge running north			
Aspect:	west to south east	STRATA	Ht (cm)	% Cover
Slope:		Upper	, ,	
Time since fire (yrs):	3	Mid	250	1
Disturbance:	low	Lower	150	10
Condition:	excellent	Bare ground (%):	80	
Observations				-
Species	•	Height (cm)	% AC	% DC
Acacia dictyophleba		30	0.01	
Aristida holathera var. ho	olathera	50	0.1	
Bonamia rosea		20	0.3	
Cenchrus ciliaris		40	0.1	
Corchorus ?elachocarpu		40	1	
Corchorus ?elachocarpu	s	40	1	
Crotalaria cunninghamii		120	0.5	
Crotalaria cunninghamii		30	0.5	
Eragrostis eriopoda		30	0.01	
Eriachne aristidea		40	0.05	
Eriachne aristidea		40	0.05	
Hakea lorea subsp. lorea Hibiscus leptocladus	1	250	0.053	
Indigofera monophylla		40	0.053	
Petalostylis cassioides		120	2	
Ptilotus polystachyus		70	0.02	
Senna notabilis		10	0.06	
Sida cardiophylla		100	1	
Sida cardiophylla		100	1	
Stylobasium spathulatum	1	120	2	
Trianthema pilosa		5	0.3	
Triodia basedowii		80	2	
Triodia schinzii		140	0.1	





Plot:	C074	Camera	Chris	
Date:	6-Apr	Photo #	586-587	
Date revisit:	Jul-11	Camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit	DIOIIWYII	
Initials.	CH/BN	Soils	Sand dune	
			brown	
Zone:	50	Soil colour:		
Datum:	GDA	Soil comments:	consolidated	sand dune
NW Easting:	725962	Outcrop:		
NW Northing:	7506025	Outcrop Type:		
SE Easting:	726007	Litter cover (%)		
SE Northing:	7505974	Logs	Twigs	Leaves
Topography:	dune ridge		2	10
	dune ridge running north	STRATA		
Aspect:	west to south east		Ht (cm)	% Cover
Slope:		Upper		
Time since fire (yrs):	5	Mid	350	5
Disturbance:	low	Lower	120	40
Condition:	very good	Bare ground (%):	50	
Observations	Some cattle grazing			
Species		Height (cm)	% AC	% DC
Abutilon lepidum sensl.		110	0.01	
Abutilon otocarpum		30	0.02	
Acacia ?synchronicia		250	0.5	
Acacia dictyophleba		20	0.05	
Acacia pachyacra		300	2	
Acacia sclerosperma su		180	0.5	
Aristida holathera var. h	nolathera	70	10	
Bonamia rosea		30	0.5	
Cenchrus ciliaris		60	5	
Cleome viscosa		20	0.01	
Corchorus ?elachocarpu	JS	20	5	
Corchorus sp.		20	5	
Eragrostis eriopoda		30	1	
Eriachne aristidea		40	0.1	
Eriachne aristidea		30	0.5	
Hakea lorea subsp. lore		5	0.5	
Hibiscus brachychlaenu		50	0.02	
Hibiscus brachychlaenu	S	30	2	
Indigofera monophylla		20	0.02	
Ipomoea muelleri Paractaenum refractum		10 30	0.02	
Petalostylis cassioides		50	0.01 0.05	
Petalostylis cassioldes Ptilotus fusiformis		30	0.05	
Ptilotus fusiformis Ptilotus polystachyus		30	0.02	
Scaevola parvifolia subsp. parvifolia		20	0.02	
Sida cardiophylla		10	0.1	
Sida cardiophylla		25	0.1	
Solanum lasiophyllum		30	0.01	
Stylobasium spathulatum		250	1	
Trianthema pilosa		5	0.05	
Tribulus hirsutus		5	0.02	
Tribulus macrocarpus		5	0.02	
Tribulus occidentalis		5 80	0.01	
Triodia basedowii Yakirra australiensis		10	0.01	
ranıra australlerisis		110	JU.U1	L





Plot:	C075	Camera	Chris	
Date:	6-Apr	Photo #	590-591	
Date revisit:	Jul-11	camera revisit	bronwyn	
Initials:	mf ch	Photo # revisit		
Initials revisit:	CH/BN	Soils	sand loam	
Zone:	50	Soil colour:	brown	
Datum:	GDA	Soil comments:		
NW Easting:	726023	Outcrop:		
NW Northing:	7506210	Outcrop Type:		
SE Easting:	726074	Litter cover (%)		
SE Northing:	7506160	` '	Turino	Lagyag
		Logs	Twigs	Leaves
Topography:	Dune swale		2	10
	swale approx 200m wide			
A	running north west to south	STRATA	114 ()	0/ 0
Aspect:	east	11	Ht (cm)	% Cover
Slope:		Upper	500	2
Time since fire (yrs):	5	Mid	400	15
Disturbance:	low	Lower	150	50
Condition:	excellent	Bare ground (%):	40	
Observations	Dune swale			
Species		Height (cm)	% AC	% DC
Acacia ?aneura		300	0.5	
Acacia ?synchronicia		300	2	
Acacia inaequilatera		400	2	
Acacia pachyacra		200	0.5	
Acacia sclerosperma subsp. sc	elerosperma	400	10	
Aristida holathera		25	0.02	
Atalaya hemiglauca		500	1	
Boerhavia coccinea		5	0.2	
Cenchrus ciliaris		70	5	
Chrysopogon fallax		130	0.5	
Cleome viscosa		30	0.05	
Corchorus ?elachocarpus		10	0.01	
Corchorus sp.		10	0.01	
Corymbia hamersleyana		600	1	
Dactyloctenium radulans		5	0.05	
Eragrostis eriopoda		40	0.5	
Eriachne ?mucronata		30	0.5	
Evolvulus alsinoides var. villosicalyx		15	0.01	
Iseilema eremaeum		5	0.05	
Portulaca oleracea		5	0.5	
Ptilotus exaltatus var. exaltatus		50	0.1	
Ptilotus obovatus		20	0.05	ļ
Senna artemisioides subsp. oligophylla		50	0.01	
Senna notabilis		10	0.01	<u> </u>
Sporobolus australasicus		5	0.01	
Stylobasium spathulatum Triodia basedowii		200 120	0.1 40	
i noula baseuowii		120	40	





Appendix C1

Species by Community Type Recorded in the Nyidinghu Study Area, 2011

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Appendix C2

Details and Photographs of Vegetation

Communities

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Hummock Grasslands on Sand Plains

ApAiTp - Acacia pruinocarpa and Acacia citrinoviridis open woodland over Acacia inaequilatera, Eremophila longifolia and Acacia ancistrocarpa shrubland over Triodia pungens hummock grassland

Community ApAiTe was associated with flat sandy loams sometimes with creekline rocks present. The presence of *Eremophila longifolia* and creekline rocks indicates this is a wet community. *Cenchrus ciliaris was present only in small abundances between 0.01% and 5% compared to *Triodia pungens* which was commonly above 20%.

Community condition varied between good and very good. ApAiTe was represented in the Project Area by six (6) quadrats.



Plate 1 Photograph of community ApAiTe

CoAdTs - Corymbia opaca and Eucalyptus gamophylla isolated trees over Acacia dictyophleba, Hakea chordophylla and Acacia ancistrocarpa sparse shrubland over Triodia schinzii, Triodia basedowii and Triodia pungens hummock grassland.

Community CoAdTs was recorded on flat sandy loams in the southeast of the Project Area. Additional associated herbaceous species include *Scaevola parvifolia* subsp. *parvifolia*, *Bonamia rosea* and *Dicrastylis cordifolia*. Community condition was excellent.



Plate 2 Photograph of community ChAdTs

CoAsTb - Corymbia opaca, Eucalyptus gamophylla and Acacia inaequilatera open woodland over Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba and Acacia inaequilatera over Triodia basedowii hummock grassland.

Community CoAsTb was recorded on sandy loam flats and was the dominant community in the west of the Project Area. Variation between the tree species occur with some areas supporting only *Corymbia opaca* and others supporting only *Eucalyptus gamophylla*. Associated understorey species included *Cenchrus ciliaris and Bonamia rosea.

Community condition ranged between Good and Very Good, depending on the dominance of *Cenchrus ciliaris.



Plate 3 Photograph of community CoAsTb

CoAaTp - Corymbia opaca, Acaciainaequilatera and Eucalyptus gamophylla open woodland over Acacia ancistrocarpa, Petalostylis labicheoides and Grevillea wickhamii subsp. hispidula shrubland over Triodia pungens hummock grassland.

Community CoAaTp was recorded on flat sandy loams on the east side of Weeli Wolli creek acting as a buffer between the hill community, EIGwTs and the creekline community, AcAhCc. Additional associated species include *Dicrastylis cordifolia, Trianthema pilosa, Senna artemisioides* subsp. *oligophylla* and *Senna notabilis*.

Community condition was excellent with no signs of grazing or introduced species.



Plate 4 Photograph of community CoAaTp

CoAdTp - Corymbia opaca and Acacia inaequilatera open woodland over Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba and Acacia pachyacra sparse shrubland over Triodia pungens grassland.

Community CoAdTp was extensive in the Project Area, recorded on flat clay loams to sandy loams. Additional associated species include *Paraneurachne muelleri*, *Solanum lasiophyllum*, *Senna artemisioides* subsp. *oligophylla*, *Corchorus sidoides* subsp. *sidoides* and *Cenchrus ciliaris.

Community condition ranged between poor, where *Cenchrus ciliaris was dominating the understorey strata, to very good. A fire scar was evident towards the southeast of the Project Area. Quadrats in the fire scar had the following observations:

- increased numbers of grasses including Aristida contorta and Eragrostis eriopoda;
- thicker herbaceous layer present including Senna spp., Euphorbia spp., and Goodenia spp.;
- shrub species more diverse; and
- most trees were unidentifiable due to recent fire, only juvenile epicormic growth was present.



Plate 5 Photograph of community CoAdTp

Fortescue Valley Sand Dune Vegetation

SsTs - *Stylobasium spathulatum* and *Acacia dictyophleba* sparse shrubland over *Triodia schinzii* and *Triodia basedowii* hummock grassland.

Community SsTs represents the Fortescue Valley Sand Dune community (PEC P3) in the west of the Project Area. The sand dunes were characterised by brown sand, with sand dunes running in parallel lines to each other. The community lacked a tree strata and the shrub strata was present in low abundance (<6 %). Additional associated species included Corchorus ?elachocarpus, Eragrostis eriopoda, Trianthema pilosa, Aristida holathera var. holathera, *Cenchrus ciliaris, and Bonamia rosea.

Community condition was generally good, with some evidence of cattle disturbance.



Plate 6 Photograph of community SsTs

Acacia woodlands in Flowlines

AcAhCc - Acacia citrinoviridis and Acacia pruinocarpa open woodland over Atalaya hemiglauca and Hakea lorea subsp. lorea isolated shrubland over *Cenchrus ciliaris tussock grassland.

Community AcAhCc occurs on the edges of the EvAhCc community surrounding creek lines. Additional associated species include *Triodia pungens*, *Portulaca oleracea, Boerhavia coccinea and Cucumis maderaspatanus. The high abundance of introduced species is likely to be caused by cattle.

Community condition varied between poor to good.



Plate 7 Photograph of community AcAhCc

ApAdCc - Acacia pruinocarpa, Corymbia hamersleyana and Acacia citrinoviridis open woodland over Acacia dictyophleba, Hakea Iorea subsp. Iorea and Acacia synchronicia sparse shrubland over *Cenchrus ciliaris and *Cenchrus setiger tussock grassland

Community ApAdCc occurs on flat to slightly undulating sandy loam to clay loam soils. This community was observed between wetter areas including flowlines and major creeklines, and the sandy flat communities. The community varied in dominance of understorey species depending on adjacent communities with *Cenchrus* tussock grasslands dwindling in areas where *Triodia pungens* hummock grasslands continued to dominate.

Community condition varied between poor to good due to the presence of cattle and dominance of *Cenchrus species.



Plate 8 Photograph of community ApAdCc

AtSaTp - Acacia tumida var. pilbarensis, Grevillea wickhamii subsp. hispidula and Gossypium robinsonii open mallee shrubland over Senna artemisioides subsp. oligophylla and Acacia adoxa var. adoxa sparse heath shrubland over Triodia pungens hummock grassland.

Community AtSaTe was observed along minor creek lines flowing from hills on rocky loamy soils. The tree strata was very low (3-4 metres) and very dense in some areas. This community was often sparsely vegetated with foliage cover similar to that observed on the rocky hills. This is likely due to the lack of minerals available in the soil

Community condition ranged between very good and excellent, with most common introduced species of the Project Area being largely absent.



Plate 9 Photograph of community AtSaTe

Major Creekline Vegetation

EvAhCc - Eucalyptus victrix, Acaciacitrinoviridis and Acacia pruinocarpa open woodland over Atalayahemiglauca and Hakea Iorea subsp. Iorea isolated shrubland over *Cenchrus ciliaris and *Cenchrus setiger tussock grassland.

Community EvAhCc was observed along the Weeli Wolli creek system and other major creek lines on sandy loam soils. Obvious signs of cattle were observed throughout this community and *Cenchrus ciliaris was a common dominant grass species that has likely resulted in the exclusion of the herbaceous layer. Acacia pyrifolia var. pyrifolia occurred sporadically throughout the community.

Community condition varied between poor and good.



Plate 10 Photograph of community EvAhCc

Hummock Grasslands on Rocky Hills

EIGwTs - Eucalyptus leucophloia subsp. leucophloia open woodland over *Grevillea wickhamii* subsp. hispidula and Acacia bivenosa sparse shrubland over *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia epactia* hummock grassland.

Community ElGwTs occurred on the hills within the Project Area characterised by skeletal soils with sandy loams underneath. Vegetation was sparse with bare ground was often around 50 %. Associated species include *Ptilotus calostachyus* and *Senna glutinosa* subsp. *pruinosa*. The BIF hills were only recorded in the south of the Project Area.

Community condition was generally excellent.

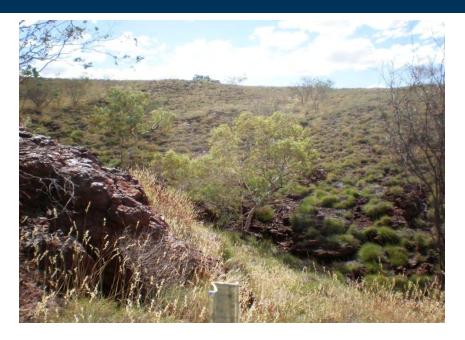


Plate 11 Photograph of community ElGwTs

Chenopods on Clay / Sandy Clay Plains

AsCc - Acacia synchronicia, Atriplex amnicola and Maireana pyramidata chenopod shrubland to open shrubland over *Cenchrus ciliaris open tussock grassland.

The AsCc community is a shrubland community that occurs on flat red clay-loams and lacks trees. This community was recorded north of the Fortescue Valley Sand Dunes in association with AaAsCc representing a mosaic of chenopod shrublands, bare areas, and Mulga stands. *Cenchrus ciliaris was the dominant understorey species however there was little over 1 % cover in all quadrats.

Community condition was very good, with little signs of disturbance except for a few introduced species.



Plate 12 Photograph of community AsCc

AsEp - Acacia sclerosperma subsp. sclerosperma, Acacia xiphophylla and Acacia ?synchronicia open shrubland over Enneapogon polyphyllus open grassland.

Community AsEp was recorded in the northern corridor on the edge of the Fortescue marshes and lacked trees. Common associated understorey species included Chenopods *Atriplex sp.* and *Enchylaena tomentosa*. This community was further characterised by occurring on flat areas with small dunes, on red loamy sand.

Community condition was very good, with one quadrat showing signs of cattle disturbance.



Plate 13 Photograph of community AsEp

MgCc - *Melaleuca glomerata, Acacia tetragonophylla* and *Eremophila youngii* subsp. *lepidota* shrubland over **Cenchrus ciliaris* tussock grassland.

Community MgCc occurs in the far north of the Project Area on the edge of the Fortescue Marshes on flat clay loam soils. Common understorey species included *Corchorus tridens* and *Rhagodia eremaea*.

Community condition was generally good, with evidence of cattle and the presence of the aggressive *Cenchrus ciliaris.



Plate 14 Photograph of community MgCc

MxEy - *Melaleuca xerophila, Acacia synchronicia* and *Eremophila youngii* subsp. *lepidota* shrubland over *Atriplex amnicola* heath shrub.

Community MxEy was recorded in the far north of the Nyidinghu Project in association with MgCc on the edge of the Fortescue Marshes. The community was characterised by islands of shrublands surrounded by bare clay pans. Associated understorey species included *Scaevola spinescens* and *Eriachne benthamii*.

Community condition varied between poor to very good depending on the presence and abundance of *Cenchrus ciliaris.



Plate 15 Photograph of community MxEy

Mulga on Clay / Clay Loam Plains

AaAsCc- Acacia aneura and Acacia pruinocarpa woodland over Acacia ?synchronicia shrubland over *Cenchrus ciliaris and *Cenchrus setiger tussock grassland.

AaAsCc was recorded on red-brown flat clay loam soils and was associated with small claypan depressions. In wetter areas in closer proximity to the Fortescue Marsh land system other associated species included Chenopods *Atriplex amnicola*, *Maireana pyramidata* and *Salsola australis*, all in low densities. Heavy grazing has resulted in the dominant presence of *Cenchrus species which has eliminated many of the expected annuals and herbaceous species.

Community condition ranged from poor to good as a result of the presence of aggressive introduced species.



Plate 16 Photograph of community AaAsCc

AaAsEs - *Acacia aneura* open woodland over *Acacia synchronicia* shrubland to open shrubland over *Eragrostis setifolia* sparse grassland

A very sparse community, AsAsEs was characterised by isolated patches of *Acacia aneura* stands on flat clay loamy soils with large areas that are very sparsely vegetated. The community condition ranged from poor to excellent, with some areas showing obvious signs of grazing. Associated understorey species included *Cleome viscosa* and *Solanum lasiophyllum*



Plate 17 Photograph of community AaAsEs

AaAsTp - Acacia aneura, Acacia aptaneura and Acacia pruinocarpa woodland to open woodland over Acacia synchronicia and Psydrax latifolia open shrubland over Triodia pungens hummock grasslands.

AaAsTe was associated with hardpan clays and moist depressions and occurred mostly in the northern corridor of the Project Area. In low wet depressions, *Eremophila lanceolata* becomes a more dominant understorey species. *Portulaca oleracea were commonly recorded in this community, albeit in low abundance. Additional associated species include Chrysopogon fallax, Sporobolus australasicus, Cucumis maderaspatanus, Senna notabilis and Cleome viscosa.

The community condition was mostly excellent, with only one quadrat showing obvious signs of disturbance and the presence of *Cenchrus ciliaris.



Plate 18 Photograph of community AaAsTe

AaAtCc- Acacia aneura and occasional Eucalyptus victrix woodland over Acacia tetragonophylla, *Vachellia farnesiana and Acacia synchronicia open shrubland over *Cenchrus ciliaris tussock grassland.

This community is associated with red-brown clay loams and claypans, encompassing a flowline in the northern corridor. AaAtCc is the only community observed that supports *Eucalyptus victrix* away from major channels indicating that more moisture is available in these areas. Potholes in deeper clay loams were common, where large areas have 'caved in'. *Malvastrum americanum* and *Boerhavia coccinea*

The introduced species of this community were present in low abundance. Community condition was rated between good to very good.



Plate 19 Photograph of community AaAtCc

AaEfTp - Acacia aneura, Acacia pruinocarpa and Acacia aptaneura woodland over Eremophila forrestii, Acacia ancistrocarpa and Acacia tetragonophylla open shrubland over Triodia pungens hummock grassland.

This community occurred on clay loams to sandy loams sometimes with black pebbles on surface. Several areas showed signs of continued dampness indicating it may be a weak flowline community. Additional common species included *Chrysopogon fallax, Solanum lasiophyllum, Sclerolaena cornishiana, Solanum lasiophyllum* and *Psydrax latifolia*.

The community condition for AaEfTe was very good to excellent. Some *Portulaca oleracea was present in some quadrats however this species is considered a non-aggressive introduced species.



Plate 20 Photograph of community AaEfTe

AaPsCf - Acacia aneura woodland over Psydrax latifolia, Acacia tetragonophylla and Acacia synchronicia open shrubland over Chrysopogon fallax and *Cenchrus ciliaris open tussock grassland.

AaPsCf was associated with flat areas, sometimes with small depressions, on clay loams with pebbles on the surface. The disturbance of cattle caused some variation in the community where *Cenchrus ciliaris would dominate the grassland. Additional associated species include Corchorus tridens, Acacia pruinocarpa and Acacia sclerosperma subsp. sclerosperma.

Community condition varied from poor to good.



Plate 21 Photograph of community AaPsCf

AxAsSa- Acacia xiphophylla and Acacia aneura isolated trees over Acacia synchronicia and Acacia tetragonophylla sparse shrubland over Salsola australis, Maireana pyramidata and Sclerolaena cuneata sparse chenopod shrubland.

Community AxAsSa was recorded in the northern corridor between denser stands of *Acacia aneura* on flat clay loam soils. Bare ground was often between 80% - 90% with all strata recorded in patches. The occurrence of these patches is likely due to the accumulation of nutrients in areas where a few species were able to colonise. This has created a scattered effect of small trees, shrubs, and herbaceous species. Associated undestorey species include *Atriplex ?amnicola*, *Goodenia prostrata* and *Solanum lasiophyllum*.

Community condition ranged between Very Good to Excellent.



Plate 22 Photograph of AxAsSa

Appendix C3
Photographs of Vegetation Condition

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Appendix C3 – Photographs of Vegetation Condition

*Cenchrus ciliaris has clearly displaced native herbaceous species by dominating the understorey layer. Spread of introduced species is likely caused by a combination of wind, surface water, native animal and livestock seed dispersion.



Plate 1 Photograph of *Cenchrus ciliaris infestation

Damage from cattle was evident throughout the area, particularly near the Roy-Hill road. Heavily grazed areas were barren, with only dead tufts of grass remaining. Near Weeli Wolli Creek the cattle have created numerous tracks where the ground is heavily compacted leaving it bare and uninhabitable due to heavy soil compaction.



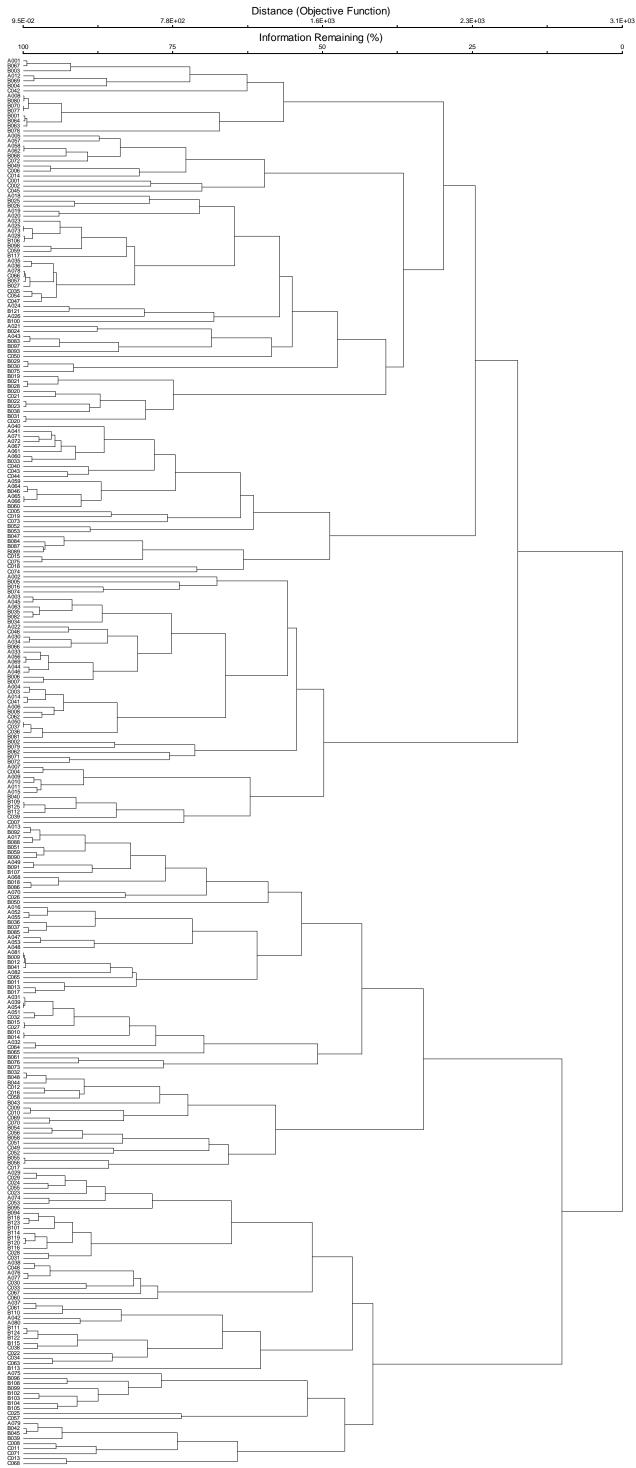
Plate 2 Photograph of heavily grazed area

Appendix D

Data Analysis Results – Dendrogram

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all plots minus singletons



Appendix E

Level VI: Sub-association of Vegetation for each Quadrat

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A001

U1^Acacia bivenosa\Acacia\^Mallee Tree\6\bc; M1Eucalyptus leucophloia\Eucalytus\^Low Tree\5\bc; M2^+Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Triodia epactia, Keraudrenia nephrosperma\Triodia\Tussock Grasses\3\c; U1^ Solanum sturtianum, Ptilotus polystachyus\Solanum\^low shrub\2\bc; U2 Solanum lasiophyllum\Solanum\^low shrub\2\bc;

A002

U1^Acacia inaequilatera\Acacia\^Mallee Tree\6\bc; M1^Acacia ?sericophylla, Acacia sclerosperma subsp. Sclerosperma\Acacia\^Mallee shrub\4\r; M2^+Triodia epactia, Triodia schinzii, Eremophila longifolia, Corymbia hamersleyana, Acacia ligulata\Triodia\^tussock grasses\3\r; U1^Petalostylis labicheoides, Cenchrus ciliaris, Tribulus macrocarpus, Eragrostis eriopoda, Eulalia aurea\Petalostylis\2\bc; U2 Trianthema pilosa, Euphorbia alsiniflora, Crotalaria medicaginea var. Neglecta, Dicrastylis cordifolia, Corchorus sidoides subsp. Sidoides\Trianthema\^other grasses\1\bi

A003

M1^ Acacia ?melleodora, Acacia sclerosperma subsp. Sclerosperma, Acacia pruinocarpa, Acacia pachyacra\Acacia\Mallee Tree\4\bc; M2 Acacia ancistrocarpa, Triodia epactia, Hibiscus sturtii var. Platychlamys\Acacia\Mallee Shrub\3\bi; U1^ Eragrostis eriopoda, Tribulus macrocarpus, Aristida holathera var. Holathera, Senna artemisioides subsp. Oligophylla, Senna notabilis\Eragrostis\\low shrub\2\r\ U2 Boerhavia coccinea, Corchorus sidoides subsp. Sidoides, Gossypium austral, Paraneurachne muelleri\Boerhavia\\low grasses\1\bi

A004

U1^ Acacia synchronicia, Corymbia hamersleyana\Acacia\^mallee tree\6\bc; M1^ Acacia inaequilatera, Acacia synchronicia, Senna notabilis, Ptilotus obovatus\Acacia\^mallee shrub\3\bi; G1^+ Triodia epactia, Senna artemisioides subsp. oligophylla x helmsii, Themeda triandra, Cleome viscose, Enneapogon polyphyllus\Trodia\^Tussock Grasses\2\l; G2 Solanum lasiophyllum, Trianthema pilosa, Portulaca oleracea, Goodenia prostrate, Eriachne pulchella subsp. Pulchella, Heliotropium inexplicitum\^low shrubs\1\bi

A005

U1^ Eucalyptus gamophylla, Corymbia hamersleyana\Eucalyptus\^tree\6\bc; M1 Hakea lorea subsp. Lorea, Acacia pruinocarpa, Acacia pachyacra\Hakea\^tree\4\bc; M2^+ Triodia schinzii\Trodia\^Tussock Grasses\3\l; G1^ Acacia dictyophleba, Melhania oblongifolia, Senna artemisioides subsp. Oligophylla, Solanum lasiophyllum, Euphorbia alsiniflora\Senna\^low shrubs\2\bi; G2 Triodia epactia, Melhania oblongifolia, Hybanthus aurantiacus, Gossypium austral, Aristida holathera var. Holathera\Trodia\^Tussock Grasses\1\bi;

A006

M1^ Acacia inaequilatera, Acacia pruinocarpa\Acacia\^mallee tree\4\bc; M2 Acacia bivenosa, Acacia ancistrocarpa, Aristida inaequiglumis\Acacia\^mallee tree\3\bi; G1^+ Triodia epactia, Eragrostis eriopoda, Paraneurachne muelleri, Aristida contorta, Eulalia aurea\Trodia\^Tussock Grasses\2\l; G2 Aristida holathera var. Holathera, Gossypium austral, Sida sp., Trichodesma zeylanicum var. Zeylanicum, Senna notabilis\Aristida\^other grasses\1\bi

A007

U1^ Corymbia hamersleyana, Hakea chordophylla\Corymbia\^trees\6\bc; M1 Acacia inaequilatera, Hakea lorea subsp. Lorea, Acacia sclerosperma subsp. Sclerosperma\Acaia\^Mallee Shrub\4\bc; M2^ Acacia ancistrocarpa, Grevillea wickhamii subsp. Hispidula, Anthobolus leptomerioides\Acacia\^Mallee Shrub\3\r; G1^+Triodia epactia, Euphorbia boophthona, Cleome viscose, Trichodesma zeylanicum var. Zeylanicum, Senna artemisioides subsp. Oligophylla\Trodia\^Tussock Grasses\2\I; G2 Corchorus sidoides subsp. Sidoides, Euphorbia ?australis, Solanum lasiophyllum, Heliotropium inexplicitum, Eriachne aristidea\Corchorus\1\bi

800A

M1 Acacia inaequilatera, Acacia pachyacra\Acacia\^Mallee Shrub\4\bi; M2^ Grevillea wickhamii subsp. Hispidula, Senna artemisioides subsp. oligophylla ? x helmsii\Grevillea\^Shrub\3\bc; G1^+ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Aristida holathera, Boerhavia coccinea, Ptilotus calostachyus, Ptilotus exaltatus var. Exaltatus\Trodia\^Tussock Grasses\2\r; G2 Eriachne aristidea, Eriachne pulchella subsp. Dominie, Gomphrena affinis subsp. Pilbarensis, *Haloragis gossei var. Gossei*, Trachymene oleracea subsp. Oleracea\Eriachne\^other grasses\bi

A009

M1 Acacia pachyacra, Hakea lorea subsp. Lorea, Eucalyptus gamophylla\Acacia\^Mallee Shrub\4\bi; M2^Acacia ancistrocarpa, Petalostylis labicheoides, Grevillea wickhamii subsp. Hispidula, Gossypium robinsonii, Acacia ?sericophylla\Acacia\^Mallee Shrub\3\bc; G1^+ Triodia epactia, Polycarpaea longiflora, Bonamia rose, Senna notabilis, Senna glutinosa subsp. Pruinosa\Trodia\^Tussock Grasses\2\c; G2 Eriachne aristidea, Goodenia microptera, Tephrosia sp., Cucumis maderaspatanus, Yakirra australiensis\^other grasses\1\bi

A010

M1 Acacia inaequilatera, Acacia elachantha, Hakea Iorea subsp. Lorea, Hakea chordophylla, Acacia pachyacra\Acacia\^Mallee Shrub\4\bi; M2^ Acacia ancistrocarpa, Petalostylis labicheoides, Acacia arida, Grevillea wickhamii subsp. Hispidula\Acacia\^Mallee Shrub\3\r; G1^+ Triodia epactia, Senna notabilis, Trichodesma zeylanicum var. Zeylanicum, Senna artemisioides subsp. Oligophylla. Dicrastylis cordifolia,

Corchorus sidoides subsp. Sidoides\Trodia\^Tussock Grasses\2\c; G2 Yakirra australiensis, Cleome viscose, Eriachne aristidea, Aristida holathera var. Holathera, Velleia panduriformis\Yakirra\^Shrubs\1\bi

A011

U1^ Corymbia hamersleyana\Corymbia\^tree\6\bi; M1 Acacia elachantha, Hakea lorea subsp. Lorea, Eucalyptus gamophylla, Acacia elachantha\Acacia\^Mallee shrub\4\bi; M2^ Acacia ancistrocarpa, Grevillea wickhamii subsp. Hispidula, Petalostylis labicheoides, Acacia bivenosa, Dodonaea coriacea\Acacia\^Mallee shrub\3\bi; G1^+Triodia epactia, Acacia adoxa var. Adoxa, Senna artemisioides subsp. Oligophylla, Hybanthus aurantiacus\Trodia\^Tussock Grasses\2\r; G2 Paraneurachne muelleri, Scaevola parvifolia subsp. Parvifolia, Sida sp.\Paraneurachne\^other grasses\1\bi

A012

M1 Acacia pachyacra, Hakea chordophylla\Acacia\^Mallee shrub\4\bi; M2^ Grevillea wickhamii subsp. Hispidula, Acacia bivenosa, Sida arenicola\Grevillea\^Shrub\3\bc; G1^+ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Triodia epactia, Codonocarpus cotinifolius, Ptilotus calostachyus, Eragrostis eriopoda\Trodia\^Tussock Grasses\2\l; G2 Euphorbia ? Australis, Eriachne pulchella, Ptilotus astrolasius, Indigofera monophylla, Goodenia microptera\Euphorbia\^Low Shrubs\1\bi

A013

U1^ Corymbia hamersleyana, Acacia citrinoviridis, Atalaya hemiglauca\Corymbia\^tree\6\bc; M1^ Acacia pruinocarpa, Hakea lorea subsp. Lorea, Acacia inaequilatera, Acacia sclerosperma subsp. Sclerosperma, Acacia synchronicia\Acacia\^Mallee shrub\4\bc; G1^+Cenchrus ciliaris, Cleome viscose, *Ipomoea muelleri, Acacia aneura*\ Cenchrus\^Other Grasses\2\I; G2 Dysphania sp.\Dysphania\^Low Shrubs\1\bi

A014

U1^ Corymbia hamersleyana\Corymbia\^tree\6\bc; M1^ Acacia inaequilatera, Acacia pachyacra\Acacia\^Mallee shrub\4\bc; M2 Acacia ?synchronicia, Petalostylis labicheoides, Grevillea sp.\Acacia\^Mallee shrub\3\bc;\G1^+Triodia epactia, Dicrastylis cordifolia, Aristida holathera var. Holathera, Hybanthus aurantiacus, *Bonamia rosea*\Trodia\^Tussock Grasses\2\c, G2 Ptilotus astrolasius, Trianthema pilosa, Eragrostis eriopoda, *Bonamia rosea*\Ptilotus\^low shrub\1\bi

A015

M1^Acacia elachantha, Acacia inaequilatera, Acacia dictyophleba, Acacia sclerosperma subsp. Sclerosperma\Acacia\^Mallee shrub\4\bi; M2 Acacia ancistrocarpa, Petalostylis labicheoides, Acacia spondylophylla, Aristida inaequiglumis\Acacia\^Mallee shrub\3\r; G1^+ Triodia epactia, Senna artemisioides subsp. Oligophylla, Solanum lasiophyllum, Dicrastylis cordifolia, Cenchrus ciliaris\Trodia\^Tussock Grasses\2\c; G2 Chrysopogon fallax, Trianthema pilosa, Gomphrena affinis

subsp. Pilbarensis, Eriachne aristidea, Corchorus sidoides subsp. Sidoides\Chrysopogon\^low Shrubs\1\bi

A016

U1^ Eucalyptus victrix\Eucalytus\^trees\6\bc, M1 Acacia citrinoviridis, Acacia pachyacrma, Acacia inaequilatera, Hakea lorea subsp. Lorea\Acacia\^Mallee shrub\4\bc; G1^+Cenchrus ciliaris, Cleome viscose\Cenchrus\^other grasses\2\I; G2 Cucumis maderaspatanus, Euphorbia australis\Cucumis\^other grasses\bi

A017

U1^ Acacia citrinoviridis, Corymbia hamersleyana\Acacia\^Mallee tree\6\bc; M1^Acacia sclerosperma subsp. Sclerosperma, Acacia pruinocarpa\Acacia\^Mallee shrub\4\bc; M2 Acacia ancistrocarpa, Acacia ?synchronicia, Acacia tetragonophylla\Acacia\^Mallee shrub\3\bc; G1^+Cenchrus ciliaris, Acacia synchronicia, Acacia synchronicia\Cenchrus\^other grasses\2\I; G2 Dysphania sp.\Gysphania\^Low Shrub\1\bi

A018

M1 Melaleuca xerophila\Melaleuca\^Tall Shrub\4\bc; M2^ Eremophila youngii subsp. Lepidota, Acacia tetragonophylla, Senna glutinosa subsp. Glutinosa, Vachellia farnesiana, Acacia synchronicia\Acacia\^Mallee Shrub\3\r; G1^+ Enneapogon polyphyllus, Enchylaena tomentose, Solanum sturtianum, Poaceae sp.\Enneapogon\^other grasses\2\l; G2 Solanum sturtianum, Blumea tenella, ?Asteraceae sp., Corchorus tridens, Neptunia dimorphantha\Solanum\^low Shrub\1\bi

A019

M1^ Acacia sclerosperma subsp. Sclerosperma, Solanum sturtianum\Acacia\^Mallee shrub\4\bc; M2 Acacia synchronicia\Acacia\^Mallee shrub\4\bi; G1^+Enneapogon polyphyllus, Atriplex sp., Enchylaena tomentose\Enneapogon\^Low grasses\2\I

A020

U1^Acacia aneura var ?, Grevillea striata\Acacia\^Mallee shrub\6\bc; M1^ Acacia sclerosperma subsp. Sclerosperma\Acacia\^Mallee shrub\4\bc; Acacia ?synchronicia, Maireana pyramidata\Acacia\^Mallee shrub\3\bc; G1^+Enneapogon polyphyllus, Atriplex sp., Cleome viscosa\Enneapogon\^Low grasses\2\I

A021

M1 Acacia xiphophylla, Eremophila longifolia\Acacia\^Mallee shrub\4\bc; M2^+ Maireana pyramidata, Rhagodia eremaea, ?Eragrostis sp., Scaevola spinescens, Acacia tetragonophylla\Maireana\^Mid Shrub\3\r; G1 Enchylaena tomentose, Portulaca oleracea\Enchylaena\^low Shrubs\2\bi; G2^ Enneapogon polyphyllus, Enteropogon ramosus, Marsilea hirsute, Brachyachne prostrate, Sporobolus australasicus\Enneapogon\^low grasses\1\bc

A022

M1^ Acacia sclerosperma subsp. Sclerosperma, Acacia pruinocarpa, Hakea lorea subsp. Lorea\Acacia\^Mallee Shrub\4\bc; M2 Acacia synchronicia, Acacia arida\Acacia\^Mallee Shrub\3\bc; G1^+Triodia epactia, Ptilotus exaltatus var. Exaltatus\Trodia\^Tussock Grasses\2\r; G2 Enneapogon polyphyllus, Sporobolus australasicus, Salsola australis, Eriachne aristidea, Perotis rara\Enneapogon\^low grasses\1\bi

A023

M1^Acacia ?synchronicia, Acacia aneura\Acacia\^Mallee Shrub\3\bc; G1 Cleome viscose\Clemoe\^low Shrub\2\bi; G2^+ Goodenia prostrate, Eremophila cuneifolia, Cleome oxalidea, Eriachne pulchella subsp. Dominie\Goodenia\^low Shurbs\1\bc

A024

M1^+ Acacia aneura, Acacia synchronicia, Fimbristylis microcary\Acacia\^mallee shrub\3\bc; G1^ Corchorus sidoides subsp. Sidoides, Salsola australis, Gossypium australe, Phyllanthus maderaspatensis, Senna artemisioides subsp. Oligophylla\Corchorus\^low shrubs\2\bi; G2 Enneapogon polyphyllus, Dysphania sp., Portulaca oleracea, Tribulus astrocarpus, Cucumis maderaspatanus\Enneapogon\^low shrubs\1\bi

A025

M1^+ Acacia xiphophylla, Acacia synchronicia\Acacia\^Mallee Shrub\3\bc; G1 Senna ?sp. Meekatharra (E. Bailey 1-26), Salsola australis, Atriplex ?amnicola, Solanum lasiophyllum, Cleome viscose, Gomphrena affinis subsp. Pilbarensis\Salosa\^low Shrubs\2\bi; G2^ Goodenia prostrate, Tribulus astrocarpus, Sporobolus australasicus, Sclerolaena cuneata, Ptilotus exaltatus var. Exaltatus\Goodenia\1\bc

A026

M1^+ Chrysopogon fallax, Acacia aneura, Acacia tetragonophylla, Acacia synchronicia, Rhagodia eremaea\Acacia\^Mallee Shrub\3\r; G1 Euphorbia tannensis subsp. Eremophila, Malvastrum americanum, Phyllanthus maderaspatensis, Gomphrena affinis subsp. Pilbarensis, Solanum lasiophyllum\Euphorbia\^low shrubs\2\bc; G2 Eremophila lanceolata, Goodenia prostrate, Streptoglossa sp., Eriachne benthamii\Eremophila\1\bc

A028

U1^+ Acacia incurvaneura\Acacia\^Mallee Tree\6\1; M1 Acacia pruinocarpa, Acacia inaequilatera\Acacia\^Mallee Shrub\4\bi; M2^ Acacia synchronicia, Rhagodia eremaea, Acacia tetragonophylla\Acacia\^Mallee Shrub\3\bc; G1^ Atriplex ?amnicola, Chrysopogon fallax, Solanum lasiophyllum, Salsola australis, Gomphrena affinis subsp. Pilbarensis\Atriplex\^low shrubs\2\bi; G2 Eragrostis setifolia, Cucumis maderaspatanus, Cleome viscose, Perotis rara, Sporobolus australasicus\Eragrostis\^low grasses\1\bi

A029

M1^+ Acacia aneura, Acacia aneura, Hakea lorea subsp. Lorea, Psydrax latifolia\Acacia\^Mallee Shrub\4\l; M2 Acacia synchronicia, Acacia tetragonophylla, Senna artemisioides subsp. oligophylla? x helmsii\Acacia\^Mallee Shrub\3\bc; G1^ Psydrax latifolia, Dodonaea petiolaris, Eremophila forrestii ?subsp. forrestii, Chrysopogon fallax, Ptilotus obovatus\Psydrax\^low shrubs\2\bc; G2 Senna artemisioides subsp. Oligophylla, Abutilon lepidum, Evolvulus alsinoides var. Villosicalyx, Cheilanthes sieberi subsp. Sieberi, Rhagodia eremaea\Senna\^low shrub\1\bi

A030

M1^ Acacia dictyophleba, Hakea Iorea subsp. Lorea, Acacia pachyacra\Acacia\^Mallee Shrub\4\bc; M2 Acacia synchronicia, Senna artemisioides subsp. oligophylla x helmsii\Acacia\^Mallee Shrub\3\bi

G1^+Triodia epactia, Eragrostis eriopoda, Senna notabilis\2\^Tussock Grasses\r; G2 Enneapogon polyphyllus, Senna artemisioides subsp. Oligophylla, Solanum lasiophyllum, Sporobolus australasicus, Sclerolaena cornishiana\Enneapogon\^low grasses\1\bi

A031

U1^ Corymbia hamersleyana\Corymbia\^trees\6\bi; M1^ Acacia pruinocarpa, Acacia pachyacra, Acacia sclerosperma subsp. Sclerosperma, Acacia dictyophleba\Acacia\^Mallee Shrub\3\bc; G1^+ Cenchrus ciliaris, Triodia epactia, Eragrostis eriopoda\Cenchrus\^low grasses\2\l; G2 Senna artemisioides subsp. Oligophylla, Senna notabilis, Sporobolus australasicus\Senna\^low shrubs\1\bi

A032

M1^ Acacia dictyophleba, Acacia pruinocarpa, Hakea lorea subsp. Lorea\Acacia\^Mallee Shrub\3\bc;

G1^+ Cenchrus ciliaris, Eremophila longifolia, Triodia epactia, Senna notabilis, Eragrostis eriopoda\Cenchrus\^low grasses\2\r; G2 Sporobolus australasicus, Boerhavia coccinea, Corchorus tridens, Gomphrena affinis subsp. Pilbarensis, Perotis rara\Sporobolus\^low shrubs\1\bc

A033

U1^ Corymbia hamersleyana\Corymbia\^trees\6\bi; M1^ Acacia dictyophleba, Acacia pachyacra, Acacia aneura, Acacia pruinocarpa,Hakea lorea subsp. Lorea\Acacia\^low Mallee shrubs\4\bc; M2 Acacia synchronicia, Eremophila longifolia, acacia tetragonophylla\Acacia\^low Mallee Shrubs\3\bc; G1^+ Triodia epactia, Eragrostis eriopoda, Gomphrena affinis subsp. Pilbarensis, Gossypium austral\Trodia\^Tussock Grasses\1; G2 Cleome viscose, Corchorus tridens, Dactyloctenium radulans, Enneapogon polyphyllus, Eriachne aristidea\Cleome\^low grasses\1\bi

A034

M1^ Acacia dictyophleba, Acacia sclerosperma subsp. Sclerosperma, Hakea lorea subsp. Lorea, Acacia pachyacra, Acacia aneura\Acacia\^Mid Mallee shrubs\4\bc; G1^+Triodia epactia, Chrysopogon fallax, Senna glutinosa subsp. Pruinosa, Rhynchosia minima\Trodia\^Tussock Grasses\2\c

A035

M1^+Acacia pruinocarpa, Acacia aneura, Acacia synchronicia, Acacia synchronicia\Acacia\Mallee shrubs\4\bc; G1^ Triodia epactia, Gomphrena affinis subsp. Pilbarensis, Ptilotus obovatus, Cleome viscose\Trodia\Tussock Grasses\2\bc; G2 Dactyloctenium radulans, Dysphania rhadinostachya, Dysphania sp., Eriachne pulchella subsp. Pulchella, Goodenia prostrate\Dysphania\^low shrubs\1\bi

A036

M1^ Acacia synchronicia, Acacia aneura\Acacia\^Mallee shrubs\4\bc;

G1 Salsola australis, Solanum lasiophyllum, Senna notabilis, Senna artemisioides subsp. Oligophylla\Senna\^low shrubs\2\bi; G2^+ Portulaca oleracea, Boerhavia coccinea, Dysphania rhadinostachya, Tribulus astrocarpus, Dysphania sp.\Dysphania\^low Shrubs\1\bc

A037

M1^+ Acacia aneura, Acacia synchronicia, acacia tetragonophylla, Eremophila forrestii ?subsp. forrestii, Hakea lorea subsp. Lorea\Acacia\^Mallee Shrub\3\I; G1^ Triodia epactia, Chrysopogon fallax, Eremophila lanceolata, Psydrax latifolia, Senna notabilis\Trodia\^Tussock Grasses\2\bc; G2 Portulaca oleracea,

Perotis rara, Eragrostis setifolia, Enteropogon ramosus, Cucumis maderaspatanus\Eragrostis\^low grasses\1\bi

A038

M1^+ Acacia aneura, Hakea Iorea subsp. Lorea, Eremophila forrestii ?subsp. forrestii, Acacia tetragonophylla\Acacia\^Mallee shrubs\4\l; G1 Chrysopogon fallax, Psydrax latifolia, Cenchrus ciliaris, Senna notabilis, Triodia epactia\Chrysopogon\^low grasses\2\r; G2 Bidens bipinnata, Blumea tenella, Perotis rara, Paspalidium basicladum, Evolvulus alsinoides var. Villosicalyx\Bidens\^low grasses\1\bc

A039

U1^ Corymbia hamersleyana, Ehretia saligna var. Saligna\Corymbia\^trees\6\bi; M1^ pruinocarpa, Acacia inaequilatera, Hakea lorea subsp. Lorea, Acacia dictyophleba, Acacia sclerosperma subsp. Sclerosperma, Acacia pyrifolia\Acacia\^Mallee Shrub\3\bc; G1^+ Cenchrus ciliaris, Triodia epactia, Senna notabilis, Salsola australis\Cenchrus\^Other Grasses\2\r; G2 Ptilotus exaltatus var. Exaltatus, Indigofera monophylla, Cucumis maderaspatanus, Notoleptopus decaisnei, Euphorbia ?australis\Ptilotus\^low shrubs\1\bi

A040

M1 ^Eucalyptus gamophylla, Acacia sclerosperma subsp. sclerosperma\Eucalyptus\^tree, shrub\5\r;M2 ^Petalostylis labicheoides, Stylobasium spathulatum\Petalostylis\^shrub\3\r;G1+ ^Triodia basedowii, Ptilotus astrolasius, Bonamia rosea, Eragrostis eriopoda, Scaevola parvifolia subsp. parvifolia\Triodia\^tussock grass, shrub, vine, other grass\2\l

A041

M1 ^Acacia sclerosperma subsp. sclerosperma, Acacia inaequilatera, Eucalyptus gamophylla, Hakea lorea subsp. lorea\Acacia\4\bc;M2 ^Stylobasium spathulatum\Stylobasium\3\bc;G1+ ^Triodia basedowii, Ptilotus astrolasius, Scaevola parvifolia subsp. parvifolia, Eragrostis eriopoda, Bonamia rosea\Triodia\^tussock grass, shrub, other grass, vine\2\r

A042

M1 ^Acacia aneura, Vachellia farnesiana, Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea\Acacia\mallee shrub, shrub\4\r;M2 ^Acacia synchronicia, Scaevola spinescens, Eremophila forrestii ?subsp. forrestii, Senna artemisioides subsp. oligophylla x helmsii, Senna glutinosa subsp. chatelainiana\Acacia\^shrub\3\r;G1+ ^Cenchrus ciliaris, Chrysopogon fallax, Euphorbia australis, Ipomoea muelleri, Psydrax latifolia\Cenchrus\^other grass, shrub, vine\2\r

A043

M1 ^Acacia aneura, Aerva javanica\Acacia\Mallee shrub, other grass\4\bi;M2 ^Acacia synchronicia, Maireana pyramidata, Scaevola spinescens, Rhagodia eremaea, Eremophila forrestii ?subsp.

forrestii\Acacia\^shrub\3\r;G1 ^Cenchrus ciliaris, Triodia basedowii, Boerhavia coccinea, Chrysopogon fallax, Atriplex ?amnicola\Cenchrus\^other grass, tussock grass, vine, shrub, herb\2\r

A044

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia pachyacra, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^Acacia ancistrocarpa\Acacia\^shrub\3\bi;G1+ ^Triodia epactia, Eragrostis eriopoda, Aristida contorta, Trianthema pilosa, Paraneurachne muelleri\Triodia\^tussock grass, other grass, herb\2\r

A045

M1 ^Acacia inaequilatera, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^Senna artemisioides subsp. oligophylla x helmsii, Aristida inaequiglumis\Senna\^shrub, other grass\3\bi;G1+ ^Triodia epactia, Eragrostis eriopoda, Paraneurachne muelleri, Aristida contorta, Trianthema pilosa\Triodia\^tussock grass, other grass, herb\2\l

A046

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^Scaevola spinescens, Atalaya hemiglauca\Scaevola\^shrub\3\bc;G1+ ^Triodia epactia, Cenchrus ciliaris, Chrysopogon fallax, Senna artemisioides subsp. oligophylla, Eragrostis eriopoda\Triodia\^tussock grass, other grass, shrub\2\l

A047

U1 ^Eucalyptus victrix\Eucalyptus\^tree\6\bc;M1 ^Acacia citrinoviridis, Acacia elachantha, Acacia pyrifolia var. pyrifolia\Acacia\^shrub\6\r;M2 ^Corchorus crozophorifolius, Atalaya hemiglauca, Acacia ?coriacea subsp. pendens, Gossypium robinsonii\Corchorus\^shrub\3\bc\G1 ^ Cenchrus ciliaris, Gomphrena cunninghamii, Triodia epactia, Boerhavia coccinea, Duperreya commixta\Cenchrus\^other grass, tussock grass, vine, herb\2\l

A048

U1 ^ Eucalyptus victrix\Eucalyptus\^tree\6\r;M1 ^ Acacia citrinoviridis, Acacia pyrifolia var. pyrifolia\Acacia\^shrub\4\r;M2 ^ Acacia ?coriacea subsp. pendens, Atalaya hemiglauca, Gossypium robinsonii\Acacia\^shrub\3\bc;G1+ ^ Corchorus crozophorifolius, Indigofera monophylla, Amaranthus undulatus, Cenchrus ciliaris, Tephrosia rosea var. glabrior\Corchorus\^shrub, vine, other grass\2\r

A049

M1 ^Acacia pruinocarpa, Acacia sclerosperma subsp. sclerosperma, Acacia citrinoviridis, Acacia inaequilatera\Acacia\^shrub\4\bc;M2 ^ Atalaya hemiglauca\Atalaya\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Ptilotus obovatus, Solanum lasiophyllum, Boerhavia coccinea, Euphorbia ?australis\Cenchrus\^other grass, shrub, herb, vine\2\c

A050

M1 ^ Acacia sclerosperma subsp. sclerosperma, Acacia pachyacra, Acacia pruinocarpa, Acacia inaequilatera, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Scaevola spinescens, Atalaya hemiglauca, Acacia ancistrocarpa\Scaevola\^shrub\3\bc;G1+ ^ Triodia epactia, Cenchrus ciliaris, Senna

artemisioides subsp. oligophylla, Chrysopogon fallax, Boerhavia coccinea\Triodia\^tussock grass, other grass, shrub, herb, vine\2\c

A051

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia pruinocarpa, Hakea lorea subsp. lorea, Acacia citrinoviridis, Eremophila longifolia\Acacia\^shrub\4\bc;M2 ^ Atalaya hemiglauca\Atalaya\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Triodia epactia, Boerhavia coccinea, Ptilotus obovatus, Cleome viscosa\Cenchrus\^other grass, tussock grass, vine, shrub, herb\2\l

A052

U1 ^ Eucalyptus victrix\Eucalyptus\^tree\6\bc;M1 ^Acacia pruinocarpa, Acacia citrinoviridis\Acacia\^shrub\4\bc;M2 ^ Codonocarpus cotinifolius, Acacia ancistrocarpa, Atalaya hemiglauca\ Codonocarpus\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Corchorus sidoides subsp. sidoides, Corchorus tridens, Aerva javanica, Boerhavia coccinea\Cenchrus\^other grass, herb\2\l

A053

U1 ^Eucalyptus victrix\Eucalyptus\^tree\6\bc;M1+ ^ Acacia citrinoviridis, Acacia pyrifolia var. pyrifolia\Acacia\^shrub\4\l;M2 ^ Atalaya hemiglauca, Gossypium robinsoniim, Clerodendrum floribundum var. angustifolium\Atalaya\^shrub\3\bc;G1 ^ Corchorus crozophorifolius, Cenchrus ciliaris, Triodia epactia, Duperreya commixta, Cleome viscosa\Corchorus\^herb, other grass, tussock grass\2\r

A054

M1 ^ Acacia inaequilatera, Acacia pruinocarpa, Acacia dictyophleba\Acacia\\shrub\4\bc;M2 ^ Acacia synchronicia, Senna artemisioides subsp. oligophylla x helmsii\Acacia\\shrub\3\bi;G1+ ^ Triodia epactia, Cenchrus ciliaris, Boerhavia coccinea, Euphorbia boophthona, Solanum lasiophyllum\Triodia\\tussock grass, other grass, vine, shrub\2\l

A055

U1 ^ Eucalyptus victrix, Corymbia hamersleyana\Eucalyptus\^tree\6\r;M1 ^Acacia pruinocarpa, Acacia citrinoviridis, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Atalaya hemiglauca, Codonocarpus cotinifolius\Atalaya\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Duperreya commixta, Corchorus tridens, Aerva javanica, Ptilotus obovatus\Cenchrus\^other grass, herb\2\l

A056

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia inaequilatera, Acacia citrinoviridis, Acacia pruinocarpa, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Eremophila forrestii ?subsp. forrestii, Senna artemisioides subsp. oligophylla x helmsii\Eremophila\^shrub\3\bi;G1+ ^ Triodia epactia, Cenchrus ciliaris, Senna artemisioides subsp. oligophylla, Senna notabilis, Solanum lasiophyllum\Triodia\^tussock grass, other grass, shrub, herb\2\l

A057

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Hakea lorea subsp. lorea, Acacia inaequilatera, Acacia dictyophleba, Acacia tumida var. pilbarensis, Acacia pachyacra\Hakea\^shrub\4\bc;M2+ ^ Triodia

schinzii, Eremophila longifolia, Senna artemisioides subsp. oligophylla ? x helmsii, Grevillea wickhamii subsp. hispidula\Triodia\^tussock grass, shrub\3\r;G1 ^ Ptilotus polystachyus, Aristida holathera var. holathera, Eragrostis eriopoda, Triodia epactia, Corchorus sidoides subsp. sidoides\Ptilotus\^shrub, other grass, tussock grass, herb\2\bc

A058

M1 ^ Hakea chordophylla, Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba, Acacia pruinocarpa, Anthobolus leptomerioides\Hakea\^shrub\5\bc;M2+ ^ Triodia schinzii, Petalostylis labicheoides, Acacia bivenosa\Triodia\^tussock grass, shrub\3\l;G1 ^ Scaevola parvifolia subsp. parvifolia, Dicrastylis cordifolia, Trianthema pilosa, Aristida holathera var. holathera, Bonamia rosea\Scaevola\^shrub, herb, other grass\2\bi

A059

M1 ^ Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba, Acacia pachyacra, Acacia inaequilatera, Eucalyptus gamophylla\Acacia\^shrub, tree\5\bc;M2 ^ Acacia ancistrocarpa, Grevillea wickhamii subsp. hispidula\Acacia\^shrub\3\bc;G1+ ^ Triodia basedowii, Aristida holathera var. holathera, Ptilotus polystachyus, Corchorus sidoides subsp. sidoides, Cenchrus ciliaris\Triodia\^tussock grass, other grass, herb\2\l

A060

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia inaequilatera, Acacia sclerosperma subsp. sclerosperma, Eucalyptus gamophylla, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Acacia ancistrocarpa, Aristida inaequiglumis, Atalaya hemiglauca, Senna glutinosa subsp. glutinosa\Acacia\^shrub, other grass\3\bi;G1+ ^ Triodia basedowii, Bonamia rosea, Cenchrus ciliaris, Ptilotus astrolasius, Corchorus sidoides subsp. sidoides\Triodia\^tussock grass, vine, other grass, herb\2\l

A061

M1 ^ Acacia inaequilatera, Acacia aneura, Hakea lorea subsp. lorea, Eucalyptus gamophylla, Acacia sclerosperma subsp. sclerosperma, Anthobolus leptomerioides\Acacia\^shrub, tree, mallee tree\4\bc;M2 ^ Petalostylis labicheoides, Acacia ancistrocarpa, Aristida inaequiglumis\Petalostylis\^shrub, other grass\3\bc;G1+ ^ Triodia basedowii, Bonamia rosea, Scaevola parvifolia subsp. parvifolia, Dicrastylis cordifolia, Ptilotus polystachyus\Triodia\^tussock grass, vine, shrub, herb\2\r

A062

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia pachyacra, Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea, Acacia tumida var. pilbarensis\Acacia\4\bc;M2+ ^ Triodia schinzii, Grevillea wickhamii subsp. hispidula, Petalostylis labicheoides\Triodia\^tussock grass, shrub\3\l;G1 ^ Aristida holathera var. holathera, Trianthema pilosa, Dicrastylis cordifolia, Eragrostis eriopoda, Bonamia rosea\Aristida\^other grass, herb, vine\2\bc

A063

M1 ^ Hakea lorea subsp. lorea, Acacia dictyophleba, Acacia pachyacra\Hakea\^shrub\4\bc;M2 ^ Petalostylis labicheoides, Acacia ancistrocarpa, Grevillea wickhamii subsp. hispidula, Triodia schinzii\Petalostylis\^shrub, tussock grass\3\bc;G1+ ^ Triodia epactia, Eragrostis eriopoda, Trianthema pilosa, Dicrastylis cordifolia, Scaevola parvifolia subsp. parvifolia\Triodia\^tussock gras, herb, shrub\2\r

A064

M1 ^ Acacia inaequilatera, Acacia pachyacra\Acacia\^shrub\4\bi;M2 ^ Acacia ancistrocarpa\Acacia\^shrub\3\bc;G1+ ^ Triodia basedowii, Dicrastylis cordifolia, Bonamia rosea, Gossypium australe, Ptilotus obovatus\Triodia\^tussock grass, shrub, vine\2\l

A065

M1 ^Acacia pachyacra, Hakea Iorea subsp. Iorea\Acacia\^shrub\4\bc;G1+ ^ Triodia basedowii, Bonamia rosea, Dicrastylis cordifolia, Senna artemisioides subsp. oligophylla, Aristida contorta, Cleome viscosa\Triodoa\^tussock grass, vine, other grass, herb\2\I

A066

M1 ^ Acacia pachyacra, Hakea lorea subsp. lorea, Acacia dictyophleba, Acacia citrinoviridis\Acacia\^shrub\4\bc;M2 ^ Acacia ancistrocarpa, Triodia schinzii, Acacia synchronicia, Aristida inaequiglumis, Grevillea wickhamii subsp. hispidula\Acacia\^shrub, tussock grass, other grass\3\bc;G1+ ^ Triodia basedowii, Solanum lasiophyllum, Aristida holathera var. holathera, Senna artemisioides subsp. oligophylla, Bonamia rosea\Triodia\^tussock grass, other grass, shrub, vine\l

A067

M1 ^Acacia inaequilatera, Hakea lorea subsp. lorea, Acacia dictyophleba, Acacia pachyacra\Acacia\^shrub\4\bi;M2 ^ Aristida inaequiglumis, Acacia ?sericophylla, Acacia sericophylla, Acacia ancistrocarpa\Aristida\^other grass, shrub\3\bc;G1+ ^ Triodia basedowii, Bonamia rosea, Indigofera monophylla, Aristida holathera var. holathera, Paraneurachne muelleri\Triodia\^tussock grass, vine\2\r

A068

U1 ^Eucalyptus victrix\Eucalyptus\^tree\6\bc;M1+ ^Acacia pruinocarpa, Hakea lorea subsp. lorea, Acacia citrinoviridis\Acacia\^shrub\4\r;M2 ^ Atalaya hemiglauca\Atalaya\^shrub\3\bc;G1 ^ Cenchrus ciliaris, Aerva javanica\Cenchrus\^other grass\2\r

A069

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia pruinocarpa, Acacia inaequilatera, Acacia citrinoviridis, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;G1+ ^ Triodia epactia, Cenchrus ciliaris, Eragrostis eriopoda, Senna notabilis, Aristida holathera var. holathera\Triodia\^tussock grass, other grass, shrub\2\r

A070

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia pyrifolia var. ?morrisonii, Acacia elachantha, Acacia aneura\Acacia\^shrub, mallee shrub\4\r;M2 ^ Gossypium robinsonii, Atalaya hemiglauca, Eremophila longifolia\Gossypium\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Triodia epactia, Eriachne helmsii, Chrysopogon fallax, Boerhavia coccinea\Cenchrus\^other grass, tussock grass, vine\2\l

A071

M1 ^ Eucalyptus gamophylla, Hakea lorea subsp. lorea, Acacia inaequilatera\Eucalyptus\^tree, shrub\4\bc;M2 ^ Acacia ancistrocarpa, Acacia tetragonophylla, Aristida inaequiglumis\Acacia\^shrub,

other grass\3\bi;G1+ ^ Triodia basedowii, Bonamia rosea, Corchorus sidoides subsp. sidoides, Dicrastylis cordifolia, Eragrostis eriopoda\Triodia\^tussock grass, herb, other grass\2\l

A072

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Eucalyptus gamophylla, Acacia inaequilatera, Hakea lorea subsp. lorea, Anthobolus leptomerioides\Eucalyptus\^tree, shrub\4\r;M2 ^ Petalostylis labicheoides, Acacia ancistrocarpa\Petalostylis\^shrub\3\bc;G1+ ^ Triodia basedowii, Bonamia rosea, Ptilotus astrolasius, Indigofera monophylla, Scaevola parvifolia subsp. parvifolia\Triodia\^tussock grass, herb, vine, shrub\2\l

A073

M1 ^Acacia xiphophylla\Acacia\^shrub\4\bc;M2 ^ Acacia synchronicia\Acacia\^shrub\3\bc;G1+ ^ Goodenia prostrata, Salsola australis, Solanum lasiophyllum, Cleome viscosa, Dactyloctenium radulans\Goodenia\^herb, shrub\2bc

A074

M1+ ^Acacia aneura\Acacia\^mallee tree\6\1;G1 ^ Bidens bipinnata, Abutilon lepidum, Bulbostylis barbata, Perotis rara, Psydrax latifolia\Bidens\^herb\2\r

A075

M1 ^ Acacia aneura, Acacia xiphophylla, Vachellia farnesiana\Acacia\^mallee tree, shrub\5\r;M2 ^ Acacia synchronicia, Acacia tetragonophylla\Acacia\^shrub\3\r;G1+ ^ Cenchrus ciliaris, Salsola australis, Eragrostis eriopoda, Malvastrum americanum, Sporobolus australasicus\Cenchrus\^other grass\2\l

A076

M1+ ^ Acacia aneura, Hakea lorea subsp. lorea\Acacia\^mallee tree, shrub\4\l;M2 ^ Acacia tetragonophylla, Acacia synchronicia\Acacia\^shrub\3\bi;G1 ^ Chrysopogon fallax, Cenchrus ciliaris, Senna notabilis, Malvastrum americanum, Abutilon lepidum\Chrysopogon\^other grass, shrub\2\r

A077

M1+ ^ Acacia aneura, Hakea lorea subsp. lorea\Acacia\^mallee tree, shrub\4\l;M2 ^ Acacia tetragonophylla, Acacia synchronicia\Acacia\^shrub\3\bi;G1 ^ Chrysopogon fallax, Cenchrus ciliaris, Perotis rara, Eremophila lanceolata, Psydrax latifolia\Chrysopogon\^other grass, shrub\2\r

A078

M1 ^ Acacia pachyacra, Acacia pruinocarpa\Acacia\^shrub\4\bi;M2 ^ Acacia synchronicia\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Cleome viscosa, Salsola australis, Boerhavia coccinea, Senna notabilis\Cenchrus\^other grass, herb, vine, shrub\2\bc

A079

M1 ^Acacia aneura, Acacia pruinocarpa, Acacia citrinoviridis, Acacia inaequilatera, Hakea lorea subsp. lorea\Acacia\^mallee tree, shrub\4\r;M2 ^ Acacia synchronicia\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Salsola australis, Senna artemisioides subsp. oligophylla, Sporobolus australasicus, Triodia epactia\Cenchrus\^other grass, herb, shrub, tussock grass\2\l

A080

M1 ^ Acacia aneura, Hakea Iorea subsp. Iorea\Acacia\^mallee tree, shrub\4\r;M2 ^ Acacia synchronicia\Acacia\^shrub\3\r;G1+ ^ Cenchrus ciliaris, Triodia epactia, Chrysopogon fallax, Dysphania rhadinostachya, Abutilon lepidum\Cenchrus\^other grass, tussock grass, herb\2\l

A081

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia citrinoviridis, Acacia pruinocarpa, Acacia dictyophleba, Acacia inaequilatera, Hakea lorea subsp. lorea\Acacia\4\r;M2 ^ Atalaya hemiglauca, Acacia synchronicia, Acacia tetragonophylla, Senna artemisioides subsp. oligophylla ? x helmsii\Atalaya\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Triodia epactia, Aerva javanica, Salsola australis, Senna notabilis\Cenchrus\^other grass, tussock grass, herb\2\l

A082

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia citrinoviridis, Acacia aneura, Hakea lorea subsp. lorea\Acacia\^shrub, mallee tree\4\r;M2 ^ Acacia synchronicia, Acacia tetragonophylla, Senna artemisioides subsp. oligophylla ? x helmsii\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Sclerolaena cornishiana, Triodia epactia, Cleome viscosa, Salsola australis\Cenchrus\^other grass, herb, tussock grass\2\r

B001

M1 ^Grevillea wickhamii subsp. hispidula, Acacia pachyacra\Grevillea\^shrub\4\bi; M2 ^Tribulus suberosus, Senna artemisioides subsp. oligophylla, Senna glutinosa subsp. glutinosa\^Tribulus\^shrub\3\bi; G1+ ^Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Fimbristylis simulans\Triodia\^tussock grass\1\l

B002

U1 ^ Acacia tumida var. pilbarensis, Corymbia hamersleyana\Acacia\^tree\6\l;M1 ^Eremophila longifolia Acacia bivenosa\Eremophila\^shrub\5\r; G1+ ^Triodia epactia, Eriachne mucronata, Senna artemisioides subsp. oligophylla, Paraneurachne muelleri\Triodia\^tussock grass\3\c;G2 ^Sida sp. Pilbara (A.A. Mitchell PRP 1543), Aristida holathera var. holathera, Hybanthus aurantiacus, Acacia pachyacra, Jasminum didymum subsp. lineare\Sida\^shrub\2\bi;G3 ^Cleome viscosa, Paspalidium rarum, Trichodesma zeylanicum, Bonamia rosea, Acacia adoxa var. adoxa\Cleome\^shrub\1\bi

B003

U1 ^Eucalyptus leucophloia\Eucalyptus\^tree\6\bc; M1 ^Acacia bivenosa, Senna glutinosa subsp. glutinosa, Tribulus suberosus, Grevillea wickhamii subsp. hispidula, Ptilotus obovatus\Acacia\^shrub\3\r;G1 ^Triodia epactia, Sida sp. Pilbara (A.A. Mitchell PRP 1543), Senna glutinosa subsp. pruinosa\Triodia\^tussock grass\2\l; G2+ ^Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Eriachne mucronata, Fimbristylis simulans, Calytrix carinata, Eriachne pulchella subsp. dominii\Triodia\^tussock grass\1\l

B004

M1 ^Grevillea wickhamii subsp. hispidula, Triodia epactia, Acacia sericophylla\Grevillea\^shrub\3\l;G1 ^ Acacia adoxa var. adoxa, Calytrix carinata, Dicrastylis cordifolia, Corchorus lasiocarpus ?subsp. parvus, Petalostylis cassioides\Acacia\^shrub\2\bc;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Dampiera candicans, Eucalyptus leucophloia, Heliotropium tenuifolium, Scaevola parvifolia subsp. parvifolia\Triodia\^tussock grass\1\l

B005

U1 ^ Corymbia hamersleyana, Acacia pyrifolia var. pyrifolia, Acacia sclerosperma subsp. sclerosperma\Corymbia\^tree\6\r; M1 ^Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba, Petalostylis cassioides, Acacia pachyacra, Gossypium robinsonii\Acacia\^shrub\4\l;M2 ^Themeda triandra\Themeda\^other grass\3\bi;G1+ ^ Triodia epactia, Cenchrus ciliaris, Gossypium australe, Paraneurachne muelleri, Cenchrus setiger\Triodia\^tussock grass\2\l;G2 ^Eriachne mucronata, Senna glutinosa subsp. pruinosa, Senna notabilis, Solanum lasiophyllum, Tribulus suberosus\Eriachne\^other grass\1\bc

B006

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia pyrifolia var. pyrifolia, Acacia dictyophleba, Gossypium robinsonii\Acacia\^shrub\4\bc;M2 ^Acacia sclerosperma subsp. sclerosperma, Gossypium australe, Acacia pachyacra, Atalaya hemiglauca, Acacia ?trudgeniana\Acacia\^shrub\3\bc;G1 ^Acacia tumida var. pilbarensis, Corchorus sidoides subsp. sidoides, Acacia tetragonophylla, Paraneurachne muelleri, Aristida holathera var. holathera\Acacia\^shrub\2\bi;G2+ ^Triodia epactia, Eriachne mucronata, Cenchrus ciliaris, Solanum lasiophyllum, Tribulus suberosus\Triodia\^tussock grass\1\l

B007

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc; G1+ ^ Triodia epactia, Acacia ancistrocarpa, Acacia pruinocarpa, Themeda triandra\Triodia\^tussock grass, shrub\3\l;G2 ^Acacia pyrifolia var. pyrifolia, Aristida holathera var. holathera, Senna artemisioides subsp. helmsii, Tephrosia rosea var. glabrior, Paraneurachne muelleri\Acacia\^shrub, other grass\2\bc;G3 ^Eragrostis eriopoda, Eriachne mucronata, Cenchrus ciliaris, Gossypium australe, Corchorus sidoides subsp. sidoides\Eragrostis\^tussock grass\1\bc

B008

U1 ^Acacia inaequilatera, Acacia sclerosperma subsp. sclerosperma, Acacia pachyacra\Acacia\^shrub\6\bi; M1 ^Hakea lorea subsp. lorea\Hakea\^shrub\4\bi;G1+ ^Triodia epactia, Acacia pruinocarpa, Atalaya hemiglauca\Triodia\^tussock grass, shrub\3\l;G2 ^Cenchrus ciliaris, Eragrostis eriopoda, Senna artemisioides subsp. oligophylla, Tribulus suberosus, Ptilotus exaltatus var. exaltatus\Cenchrus\other grass\1\bc

B009

U1 ^Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^shrub\6\l;M1 ^Santalum sp., Atalaya hemiglauca\Santalum\^shrub\4\bc;G1+ ^Cenchrus ciliaris, Triodia epactia, Senna glutinosa subsp. glutinosa, Senna artemisioides subsp. helmsii\Cenchrus\^other grass\2\l;G2 ^Ptilotus obovatus,

Corchorus sidoides subsp. sidoides, Ptilotus exaltatus var. exaltatus, Gomphrena affinis subsp. pilbarensis, Psydrax latifolia\Ptilotus\^shrub\1\bi

B010

U1 ^Acacia ?citrinoviridis, Acacia pruinocarpa\Acacia\^tree\6\l;M1 ^Psydrax latifolia\Psydrax\^shrub\4\bi;M1 ^ Senna artemisioides subsp. helmsii\Senna\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Triodia epactia, Cenchrus setiger, Rhagodia eremaea, Enchylaena tomentosa\Cenchrus\^other grass, tussock grass\2\l;G2 ^ Portulaca oleracea, Corchorus sidoides subsp. sidoides, Ptilotus obovatus, Gossypium australe, Cleome viscosa\Portulaca\^herb\1\bi

B011

U1 ^Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^tree\6\l;M1 ^Acacia pyrifolia var. pyrifolia, Rhagodia eremaea\Acacia\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Triodia epactia, Ptilotus obovatus, Cenchrus setiger\Cenchrus\^other grass, tussock grass\2\l;G2 ^ Notoleptopus decaisnei, Polycarpaea longiflora, Indigofera monophylla, Cleome viscosa, Solanum lasiophyllum\Notoleptopus\^shrub\1\bi

B012

U1 ^Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^tree\6\r;M1 ^ Eremophila longifolia, Rhagodia eremaea, Atalaya hemiglauca\Eremophila\^shrub\4\bc;G1+ ^ Cenchrus ciliaris, Triodia epactia\Cenchrus\^other grass, tussock grass\2\l;G2 ^ Boerhavia coccinea, Cleome viscosa, Portulaca oleracea\Boerhavia\^herb\1\bi

B013

U1 ^Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^tree\6\r;M1 ^ Acacia coriacea subsp. pendens, Acacia sclerosperma subsp. sclerosperma, Acacia inaequilatera\Acacia\^shrub\4\bc;M2 ^ Triodia epactia, Acacia sclerosperma subsp. sclerosperma, Eremophila longifolia, Corchorus sidoides subsp. sidoides\Triodia\^tussock grass, shrub\3\bc;G1+ ^Cenchrus ciliaris, Atalaya hemiglauca, Sclerolaena cornishiana \Cenchrus\^other grass, shrub\2\l;G2 ^Senna notabilis, Enchylaena tomentosa, Solanum lasiophyllum, Alternanthera nana\^shrub, herb\1\bi

B014

U1 ^Acacia pruinocarpa, Acacia citrinoviridis\Acacia\^tree\6\l;M1 ^Triodia epactia, Atalaya hemiglauca, Corchorus sidoides subsp. sidoides\Triodia\^tussock grass, shrub\3\r;G1+ ^Cenchrus ciliaris, Gomphrena affinis subsp. pilbarensis\Cenchrus\^other grass\2\l;G2 ^Solanum lasiophyllum, Senna notabilis, Portulaca oleracea, Ptilotus obovatus, Cleome viscosa\Solanum\^shrub\1\bi

B015

U1 ^Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^tree\6\r; M1+ ^Triodia epactia, Eremophila longifolia\Triodia\^tussock grass, shrub\3\r;G1 ^Cenchrus ciliaris, Cenchrus setiger, Senna artemisioides subsp. helmsii\Cenchrus\^other grass\2\r;G2 ^Salsola australis, Senna notabilis, Ptilotus obovatus, Solanum lasiophyllum, Cleome viscosa\Salsola\^shrub\1\bi

B016

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia dictyophleba, Acacia citrinoviridis, Acacia pyrifolia var. pyrifolia\Acacia\^shrub\4\bi;M2+ ^Triodia epactia, Acacia sclerosperma var. sclerosperma,

Acacia ancistrocarpa, Atalaya hemiglauca, Rulingia luteiflora\Triodia\^tussock grass\shrub\3\l;G1 \Cenchrus ciliaris, Cenchrus setiger, Enneapogon robustissimus, Notoleptopus decaisnei, Stylobasium spathulatum\Cenchrus\^other grass\2\r;G2 \Eragrostis eriopoda, Eriachne mucronata, Indigofera monophylla, Gossypium australe, Polycarpaea longiflora\Eragrostis\^tussock grass\1\bc

B017

U1 ^Corymbia hamersleyana, Acacia pruinocarpa, Hakea lorea subsp. lorea, Acacia citrinoviridis\Corymbia\^tree\6\l;M1 ^Atalaya hemiglauca\Atalaya\^shrub\4\bi;G1+ ^Cenchrus ciliaris, Triodia epactia, Acacia inaequilatera, Rhagodia eremaea\Cenchrus\^other grass, tussock grass\2\l

B018

U1 ^Acacia pruinocarpa\Acacia\^tree\7\bc; U2 ^Hakea lorea subsp. lorea, Atalaya hemiglauca, Acacia aneura\Hakea\^shrub, mallee shrub\6\bc;M1 ^Acacia citrinoviridis\Acacia\^shrub\4\bi;M2 Triodia epactia, Acacia dictyophleba\triodia\^tussock grass, shrub\3\bc;G1+ ^Cenchrus ciliaris, Acacia inaequilatera \Cenchrus\^other grass, shrub\2\l;G2 ^Portulaca oleracea\Portulaca\^herb\\bi

B019

U1 ^Eucalyptus victrix\Eucalyptus\^tree\7\l;M1 ^Acacia pyrifolia var. pyrifolia, Stylobasium spathulatum\Acacia\^tree, shrub\5\bi;M2 ^Atalaya hemiglauca\Atalaya\^shrub\3\bi;G1+^Cenchrus setiger, Aerva javanica, Corchorus sidoides subsp. sidoides, Amaranthus undulatus, Cenchrus ciliaris\Cenchrus\^other grass, herb\2\l;G2 ^Acacia citrinoviridis, Ptilotus obovatus, Polycarpaea longiflora, Gomphrena cunninghamii, Cleome viscosa\Acacia\^shrub, herb\1\bi

B020

U1 ^Corchorus crozophorifolius, Eucalyptus victrix\Corchorus\^tree\7\bc;U2 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia pyrifolia var. pyrifolia\Acacia\^shrub\4\bc;M2 ^Acacia citrinoviridis, Atalaya hemiglauca\Acacia\^shrub\3\bc;G1+ ^Cenchrus setiger, Cenchrus ciliaris\Cenchrus\^other grass\2\r;G2 ^Acacia synchronicia, Ptilotus exaltatus var. exaltatus, Cleome viscosa\Acacia\^shrub, herb\1\bi

B021

U1 ^Eucalyptus victrix\Eucalyptus\^tree\7\I;U2 ^Hakea lorea subsp. lorea\Hakea\^tree\6\bi;M1 ^Atalaya hemiglauca\Atalaya\^shrub\4\bi;G1+ ^Cenchrus setiger\Cenchrus\^other grass\2\c

B022

U1 ^Acacia citrinoviridis, Eucalyptus victrix\Acacia\^tree\7\l;U2 ^Atalaya hemiglauca\Atalaya\^tree\6\bi;G1+ ^Cenchrus setiger\Cenchrus\^other grass\2\c

B023

U1 ^Eucalyptus victrix, Acacia citrinoviridis\Eucalyptus\^tree\7\l;M1 ^Atalaya hemiglauca\Atalaya\^shrub\4\bi;G1+ ^Cenchrus setiger\Cenchrus\^other grass\2\l;G2 ^Salsola australis\Salsola\^shrub\1\bi

B024

M1 ^Acacia xiphophylla, Acacia aneura\Acacia\^shrub, mallee shrub\6\r;M2 ^Santalum lanceolatum\Santalum\^shrub\5\bi;M3+ ^Maireana pyramidata, Acacia synchronicia, Eremophila youngii var. youngii, Scaevola spinescens, Acacia tetragonophylla\Maireana\^shrub\3\l;G1 ^Cenchrus ciliaris, Atriplex sp., Senna artemisioides subsp. oligophylla, ?Scaevola spinescens, Ptilotus exaltatus var. exaltatus\Cenchrus\^other grass, shrub\2\r;G2 ^Poaceae sp., Senna artemisioides subsp. oligophylla, Sclerolaena densiflora, Enchylaena tomentosa, Cleome viscosa\Poaceae\^other grass\1\bi

B025

M1+ ^Melaleuca xerophila, Acacia aneura\Melaleuca\^tree, mallee tree\6\r;M2 ^Acacia synchronicia, Eremophila youngii subp. Lepidota, Melaleuca glomerata\Acacia\^tree, shrub\5\bc;M3 ^Acacia tetragonophylla, Atriplex amnicola\Acacia\^shrub\3\r;G1 ^ ?Scaevola spinescens, Cenchrus ciliaris, Aeschynomene indica, Echinochloa colona, Eragrostis eriopoda\Scaevola\^shrub, other grass\3\bc;G2 ^ Eriachne benthamii, Eragrostis tenellula, Eragrostis ?setifolia, Malvastrum americanum, Cleome viscosa\Eriachne\^other grass\1\bc

B026

U1+ ^Melaleuca xerophila, Acacia xiphophylla\Acacia\^tree, shrub\6 \r;M1 ^Acacia synchronicia, Senna glutinosa subsp. chatelainiana\Acacia\^shrub\5\bi;M2 ^Eremophila youngii subsp. lepidota, Eremophila forrestii ?subsp. forrestii\Eremophila\^shrub\3\bc;G1 ^Cenchrus ciliaris, Atriplex amnicola, Senna artemisioides subsp. helmsii, Cleome viscosa, Enteropogon ramosus\Cenchrus\^other grass, herb\2\bc;G2 ^ Dactyloctenium radulans, Atriplex codonocarpa, Sclerolaena cuneata, Portulaca oleracea, Boerhavia coccinea\ Dactyloctenium\^other grass, herb\1\bc

B027

M1+ ^Acacia xiphophylla, Acacia synchronicia, Scaevola spinescens, Eremophila forrestii ?subsp. forrestii\Acacia\^shrub\3\bc;G1 ^Maireana pyramidata, Enteropogon ramosus, Eragrostis tenellula, Solanum lasiophyllum, Enchylaena tomentosa\Maireana\^shrub\2\bc;G2 ^Sclerolaena cuneata, Trianthema triquetra, Portulaca oleracea, Cleome viscosa, Salsola australis\Sclerolaena\^herb, other grass\1\bc

B028

U1 ^Eucalyptus victrix\Eucalyptus\^tree\7\bc;U2 ^Acacia pruinocarpa\Acacia\^tree\6\bc;M1 ^Acacia pyrifolia var. pyrifolia, Atalaya hemiglauca\Acacia\^shrub\3\bc;G1+ ^Cenchrus setiger, Acacia citrinoviridis, Capparis spinosa, Aerva javanica, Boerhavia coccinea\Cenchrus\^other grass, shrub, herb\2\c

B029

U1 ^Acacia inaequilatera, Hakea lorea subsp. lorea\Acacia\^tree\6\r;M1 ^Acacia dictyophleba, Anthobolus leptomerioides\Acacia\^shrub\4\r;M2 ^Acacia ancistrocarpa, Acacia pruinocarpa\Acacia\^shrub\3\bc;G1+ ^Triodia ?basedowii, \Triodia\^tussock grass\2\c;G2 ^ Senna notabilis\Senna\^shrub\1\bi

B030

M1 ^Acacia inaequilatera, Acacia pruinocarpa\Acacia\^shrub\5\bc;M2 ^Acacia dictyophleba, Triodia epactia, Acacia synchronicia\Acacia\^shrub, tussock grass\3\bc;G1+ ^Triodia ?basedowii, Cenchrus ciliaris, Eragrostis eriopoda\Triodia\^tussock grass, other grass\2\l

B031

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;U2 ^Acacia pruinocarpa, Hakea lorea subsp. lorea\Acacia\^tree\5\bc;M1 ^Acacia sclerosperma subsp. sclerosperma, Acacia aneura\Acacia\^shrub, mallee tree\5\bc;M2 ^Rhagodia eremaea, Acacia ?synchronicia, Atalaya hemiglauca\Rhagodia\^shrub\3\bc;G1+ ^Cenchrus setiger, Cenchrus ciliaris, Cucumis maderaspatanus\Cenchrus\^other grass, vine\2\bi

B032

M1 ^Acacia citrinoviridis, Acacia aneura\Acacia\^tree, mallee tree\6\bc;M2 ^Acacia ?synchronicia, Acacia inaequilatera\Acacia\^shrub\4\bc;G1+ ^Cenchrus ciliaris, Aerva javanica, Paraneurachne muelleri\Cenchrus\^other grass, herb\2\r;G2 ^Salsola australis, Solanum lasiophyllum, Cleome viscosa, Boerhavia coccinea\Salsola\^shrub, herb\1\bc

B033

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia inaequilatera, Hakea lorea subsp. lorea, Acacia citrinoviridis, Acacia aneura, Acacia coriacea subsp. pendens\Acacia\^shrub\5\bc;M2 ^Acacia ancistrocarpa, Acaci8a pachyacra\Acacia\^shrub\3\bc;G1+ ^Triodia basedowii, Cenchrus ciliaris, Eragrostis eriopoda, Petalostylis cassioides, Acacia dictyophleba\Triodia\^tussock grass, other grass, shrub\2\l;B2 ^ Aristida holathera var. holathera, Bonamia rosea, Dicrastylis cordifolia, Cleome viscosa, Eriachne mucronata\Aristida\^other grass, herb\1\bc

B034

M1 ^Acacia pruinocarpa, Acacia sclerosperma subsp. sclerosperma, Acacia pachyacra\Acacia\^shrub\6\r;G1+ ^Triodia epactia, Cenchrus ciliaris, Senna artemisioides subsp. oligophylla, Senna artemisioides subsp. helmsii, Solanum lasiophyllum\Triodia\^tussock grass, other grass, shrub\2\r;G2 ^Aristida holathera subsp. holathera, Eragrostis eriopoda, Solanum lasiophyllum, Paraneurachne muelleri, Corchorus sidoides subsp. sidoides\Aristida\^other grass, herb\1\r

B035

M1 ^Acacia pachyacra, Chrysopogon fallax, Acacia ?synchronicia\Acacia\^shrub\3\r; G1+ ^Triodia epactia, Eragrostis eriopoda, Solanum lasiophyllum, Cenchrus ciliaris, Senna artemisioides subsp. helmsii\Triodia\^tussock grass, herb, shrub\2\r;G2 ^Eragrostis tenellula, Senna notabilis, Corchorus sidoides subsp. sidoides, Aristida holathera var. holathera, Trianthema pilosa\Eragrostis\^other grass, shrub, herb\1\bc

B036

U1 ^Acacia citrinoviridis, Eucalyptus victrix, Corymbia hamersleyana\Acacia\^tree\7\r;U2 ^Acacia pruinocarpa\Acacia\^tree\6\bc;M1 ^Hakea lorea subsp. lorea, Atalaya hemiglauca\Hakea\^shrub\4\bc;G1+

^Cenchrus ciliaris, Aerva javanica, Duperreya commixta, Solanum lasiophyllum\Cenchrus\^other grass, herb\1\c

B037

U1 ^Acacia citrinoviridis, Acacia pruinocarpa, Eucalyptus victrix\Acacia\^tree\7\r;M1 ^Hakea lorea subsp. lorea\Hakea\^shrub\5\bc;M2 ^Atalaya hemiglauca\Atalaya\^shrub\3\bi;G1+ ^Cenchrus ciliaris\Cenchrus\^other grass\1\r

B038

U1 ^Acacia aneura, Acacia paraneura, Acacia citrinoviridis, Hakea lorea subsp. lorea\Acacia\mallee tree, tree, shrub\6\r;M1 ^Acacia pruinocarpa, Acacia pyrifolia var. pyrifolia\Acacia\^shrub\bc;M2 ^Acacia ancistrocarpa\Acacia\^shrub\3\bc;G1+ ^Cenchrus setiger, Solanum lasiophyllum, Acacia ?synchronicia, Senna artemisioides subsp. helmsii\Cenchrus\^other grass, shrub\2\r;G2 ^Senna notabilis, Corchorus sidoides subsp. sidoides, Portulaca oleracea, Gossypium australe, Sclerolaena cornishiana\Senna\^shrub\1\bc

B039

U1 ^Acacia aneura, Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^tree\7\r;U2 ^Corymbia hamersleyana, Acacia paraneura, Hakea lorea subsp. lorea\^Corymbia\^tree\6\bc;M1 ^Acacia pyrifolia var. pyrifolia, Acacia inaequilatera, Atalaya hemiglauca\Acacia\^shrub\5\bi;G1+ ^Cenchrus ciliaris, Ptilotus obovatus\Cenchrus\^other grass, herb\2\l;G2 ^Abutilon lepidum, Boerhavia coccinea, Cucumis maderaspatanus, Gossypium australe\Abutilon\^shrub, vine\1\bc

B040

U1 ^Acacia inaequilatera, Acacia pruinocarpa, Hakea lorea subsp. lorea\Acacia\^tree\6\r;M1+ ^Triodia epactia, Acacia citrinoviridis, Acacia ?synchronicia, Atalaya hemiglauca, Eremophila longifolia\Triodia\^tussock grass, shrub\3\l;G1 ^Cenchrus ciliaris, Solanum lasiophyllum, Senna notabilis, Gossypium australe, Rhagodia eremaea\Cenchrus\^other grass, shrub\1\bc

B041

U1 ^Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^tree\7\r;M1 ^Hakea lorea subsp. lorea, Acacia pyrifolia var. pyrifolia, Acacia dictyophleba\Hakea\^shrub\4\bc;M2 ^Acacia aneura, Acacia inaequilatera, Atalaya hemiglauca\Acacia\^shrub\3\bc;G1+ ^Cenchrus ciliaris, Triodia epactia, Scaevola spinescens, Aerva javanica\Cenchrus\^other grass, tussock grass, shrub\2\l;G2 ^Solanum lasiophyllum\Solanum\^shrub\1\bi

B042

U1+ ^Acacia aneura, Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^tree\6\r;M1 ^Acacia pyrifolia var. pyrifolia, Eremophila longifolia, Acacia paraneura\Acacia\^shrub\4\bc;G1 ^Cenchrus ciliaris, Psydrax latifolia, Atalaya hemiglauca, Boerhavia coccinea\Cenchrus\^other grass, shrub, vine\2\r;G2 ^Abutilon lepidum, Malvastrum americanum\Abutilon\^shrub, other grass\1\bi

B043

M1+ ^Acacia sclerosperma subsp. sclerosperma, Acacia ?synchronicia, Acacia pruinocarpa, Corymbia hamersleyana\Acacia\^shrub, tree\6\r;M1 ^Acacia tetragonophylla\Acacia\^shrub\3\bc;G1 ^ Senna

artemisioides subsp. oligophylla, Solanum lasiophyllum\Senna\^shrub\2\bc;G2 ^Cenchrus ciliaris, Senna artemisioides subsp. helmsii, Salsola australis, Ipomoea muelleri, Senna notabilis\Cenchrus\^other grass, shrub, herb\1\r

B044

U1+ ^Acacia pruinocarpa\Acacia\^tree\7\bc;U2 ^Acacia aneura, Acacia citrinoviridis\Acacia\^mallee tree, shrub\6\bc;M1 ^Acacia ?synchronicia, Acacia inaequilatera\Acacia\^shrub\3\bc;G1 ^Cenchrus ciliaris, Senna artemisioides subsp. helmsii, Senna notabilis, Salsola australis, Aerva javanica\Cenchrus\^other grass, shrub\1\bc

B045

U1 ^Acacia aneura\Acacia\^mallee tree\7\r;U2 ^Acacia ?synchronicia, Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^shrub\6\bc;M1 ^Acacia sclerosperma subsp. sclerosperma\Acacia\^shrub\3\bi;G1+ ^Cenchrus ciliaris, Senna artemisioides subsp. oligophylla, Acacia paraneura\Cenchrus\^other grass, shrub\1\r;G2 ^Senna notabilis, Cleome viscosa, Portulaca oleracea\Senna\^shrub, herb\1\bi

B046

U1 ^Acacia ancistrocarpa, Acacia pachyacra\Acacia\^tree\7\bc;M1 ^Hakea lorea subsp. lorea\Hakea\^shrub\5\bi;G1+ ^Triodia basedowii, Acacia ?synchronicia, Cullen leucochaites\Triodia\^tussock grass, shrub\2\c;G2 ^Bonamia rosea, Aristida holathera var. holathera, Dicrastylis cordifolia, Senna notabilis, Ptilotus polystachyus\Bonamia\^shrub, other grass\1\bc

B047

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia dictyophleba, Gossypium robinsonii\Acacia\^shrub\4\bc;M2 ^ Acacia inaequilatera, Acacia tumida var. pilbarensis, Eremophila longifolia, Acacia pachyacra, Aristida inaequiglumis\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Triodia basedowii, Acacia spondylophylla, Grevillea wickhamii subsp. hispidula\Cenchrus\^other grass, tussock grass, shrub\2\l;G2 ^Bonamia rosea, Gossypium australe, Hybanthus aurantiacus, Dicrastylis cordifolia, Cullen leucochaites, Eragrostis eriopoda\Bonamia\^shrub\1\bc

B048

M1 ^Acacia pruinocarpa, Hakea lorea subsp. lorea\Acacia\^tree\6\bc;M2 ^Acacia ?synchronicia, Acacia inaequilatera\Acacia\^shrub\4\bc;M3 ^ Acacia ancistrocarpa, Acacia dictyophleba, Acacia citrinoviridis\Acacia\^shrub\3\bc;G1+ ^Cenchrus ciliaris, Chrysopogon fallax, Hybanthus aurantiacus, Sporobolus australasicus\Cenchrus\^other grass, shrub\2\r

B049

U1 ^ Hakea lorea subsp. lorea, Acacia adsurgens\hakea\^tree\6\bc;M1+ ^Triodia schinzii, Triodia basedowii, Acacia ancistrocarpa\Triodia\^tussock grass, shrub\3\c;G1 ^ Indigofera monophylla, Bonamia rosea, Scaevola parvifolia subsp. parvifolia\Indigofera\^shrub, vine\1\bc

B050

U1 ^ Acacia tumida var. pilbarensis, Stylobasium spathulatum\Acacia\^tree, shrub\6\bc;M1+ ^ Aristida inaequiglumis, Aristida inaequiglumis, Grevillea wickhamii subsp. hispidula, Chrysopogon fallax\Aristida\^shrub\3\l;G1 ^ Acacia dictyophleba, Indigofera monophylla, Tephrosia rosea var. glabrior,

Corchorus sidoides subsp. sidoides, Euphorbia australis, Dampiera candicans\Acacia\^shrub\2\bi;G2 ^Cenchrus ciliaris, Cleome viscosa, Gossypium robinsonii\Cenchrus\^other grass, herb\1\r

B051

U1 ^ Corymbia hamersleyana, Acacia aneura\Corymbia\^tree\6\bc;M1 ^Stylobasium spathulatum, Acacia dictyophleba, Acacia ?synchronicia, Triodia longiceps\ Stylobasium\^shrub, tussock grass\3\bc;G1+ ^ Cenchrus ciliaris, Gossypium australe, Solanum lasiophyllum\Cenchrus\^other grass, shrub\2\r;G2 ^ Senna notabilis, Senna ?sp. Meekatharra (E. Bailey 1-26), Euphorbia boophthona, Aristida holathera var. holathera, Trianthema pilosa\Senna\^shrub\1\bc

B052

M1 ^ Acacia inaequilatera, Acacia ancistrocarpa, Acacia pruinocarpa, Eucalyptus gamophylla\Acacia\^shrub\4\bc;M2+ ^Triodia basedowii, Aristida inaequiglumis, Hakea lorea subsp. lorea, Acacia inaequilatera, Senna glutinosa subsp. glutinosa\Triodia\^tussock grass\shrub\3\r;G1 ^ Aristida holathera var. holathera, Ptilotus exaltatus var. exaltatus, Solanum lasiophyllum, Sida sp. Pilbara (A.A. Mitchell PRP 1543), Acacia ?synchronicia\Aristida\^shrub\2\bc;G2 ^Bonamia rosea, Eragrostis eriopoda, Dicrastylis cordifolia, Indigofera monophylla, Dysphania kalpari\Bonamia\^vine, shrub, herb\1\bc

B053

M1 ^ Acacia inaequilatera, Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea, Acacia adsurgens\Acacia\^shrub\6\bc;M2 + ^Triodia basedowii, Acacia ancistrocarpa\Acacia\^shrub\4\l;G1 ^ Rhagodia eremaea, Eragrostis eriopoda, Ptilotus exaltatus var. exaltatus, Ptilotus polystachyus\Rhagodia\^shrub\2\bc;G2 ^ Aristida holathera var. holathera, Trianthema pilosa, Corchorus sidoides subsp. sidoides, Senna notabilis, Eriachne aristidea\Aristida\^other grass, herb\1\bi

B054

U1+ ^Acacia Aneura\Acacia\^mallee tree\6\r;M1 ^ Acacia ?synchronicia, Acacia sclerosperma subsp. sclerosperma, Ptilotus obovatus\Acacia\^shrub\3\r;G1 ^Cenchrus ciliaris, Cleome viscosa, Chrysopogon fallax, Maireana pyramidata, Dactyloctenium radulans\Cenchrus\^other grass, herb, shrub\1\bc

B055

M1 ^Acacia ?synchronicia\Acacia\^shrub\4\bc;G1+ ^ Atriplex amnicola, Maireana pyramidata, Cenchrus ciliaris\Atriplex\^shrub, other grass\2\r;G2 ^ Sclerolaena diacantha, Ptilotus obovatus var. obovatus, Centipeda minima, Sporobolus australasicus\^herb, shrub\1\bi

B056

M1+ ^ Acacia ?synchronicia, Eucalyptus ?leucophloia\Acacia\^shrub\4\r;G1 ^ Atriplex amnicola, Maireana pyramidata, Rhagodia eremaea, Acacia aneura, Eremophila longifolia\Atriplex\^shrub, mallee tree\2\r;G2 ^ Salsola australis, Sclerolaena cuneata, Sporobolus australasicus, Boerhavia coccinea, Ipomoea muelleri\Salsola\^shrub\vine\1\bc

B057

M1+ ^Acacia ?synchronicia\Acacia\^shrub\3\bc;G1 ^ Atriplex amnicola, Ptilotus obovatus var. obovatus, Maireana pyramidata, Trianthema triquetra\Atriplex\^shrub\2\bc;G2 ^ Cenchrus ciliaris, Salsola australis, Sclerolaena cuneata, Dactyloctenium radulans, Sclerolaena diacantha\Cenchrus\^other grass, shrub, herb\1\bc

B058

U1+ ^Acacia aneura\Acacia\^mallee tree\6\r;M1 ^Acacia ?synchronicia\Acacia\^shrub\4\r;M2 ^Acacia sclerosperma subsp. sclerosperma, Acacia tetragonophylla, Eremophila longifolia, Senna glutinosa subsp ?, Chrysopogon fallax\Acacia\^shrub\3\bc;G1 ^Triodia basedowii, Solanum lasiophyllum, Gossypium australe\Triodia\^tussock grass, shrub\2\bc;G2 ^Cenchrus ciliaris, Eragrostis tenellula, Corchorus sidoides subsp. sidoides, Cleome viscosa, Indigofera monophylla\Cenchrus\^other grass, shrub, herb, vine\1\r

B059

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bcM1 ^Chrysopogon fallax, Acacia ?synchronicia\Chrysopogon\^shrub\3\bi;G1+ ^Cenchrus ciliaris, Acacia paraneura, Senna glutinosa subsp. glutinosa x, Ipomoea muelleri\Cenchrus\^other grass, shrub, vine\2\r;G2 ^ Gossypium australe, Indigofera monophylla, Corchorus sidoides subsp. sidoides, Cleome viscosa, Salsola australis\Gossypium\^shrub, vine, herb\1\bi

B060

M1 ^ Corymbia hamersleyana, Acacia bivenosa\Corymbia\^tree, shrub\4\bi;M2 ^ Acacia ancistrocarpa, Tribulus suberosus, Acacia tumida var. pilbarensis, Grevillea wickhamii subsp. hispidula, Hakea lorea subsp. lorea\Acacia\^shrub\2\r;G1+ ^ Triodia basedowii, Acacia adoxa var. adoxa, Senna artemisioides subsp. oligophylla, Aristida holathera var. holathera, Cleome viscosa\Triodia\^tussock grass, shrub, herb\2\r;G2 ^ Ptilotus astrolasius, Mollugo molluginea, Bonamia rosea, Paraneurachne muelleri, Senna artemisioides subsp. helmsii\^shrub, vine\1\bc

B061

M1+ ^ Acacia tumida var. Pilbarensis, Grevillea wickhamii subsp. hispidula, Gossypium robinsonii\Acacia\^shrub\4\l; Triodia epactia, Acacia pyrifolia var. pyrifolia, Senna artemisioides subsp. oligophylla\Triodia\^tussock grass, shrub\3\r;G1 ^ Cenchrus ciliaris, Aristida holathera var. holathera, Santalum lanceolatum, Cleome viscosa\Cenchrus\^other grass, shrub, herb\2\r;G2 ^ Ptilotus exaltatus var. exaltatus, Boerhavia coccinea, Polycarpaea longiflora\Ptilotus\^shrub, vine\1\bc

B062

M1+ ^ Acacia tumida var. pilbarensis, Acacia inaequilatera, Acacia maitlandii, Acacia pachyacra, Acacia bivenosa\Acacia\^shrub\3\r;G1 ^ Ptilotus auriculifolius, Acacia adoxa var. adoxa, Solanum lasiophyllum, Ptilotus exaltatus var. exaltatus, Triodia basedowii\Ptilotus\^shrub, tussock grass\2\r;G2 ^ Triodia epactia, Heliotropium ? pachyphyllum, Aristida holathera var. holathera, Dysphania rhadinostachya subsp. rhadinostachya, Senna notabilis\triodia\^tussock grass, shrub\1\r

B063

U1 ^Eucalyptus leucophloia subsp. leucophloia\Eucalyptus\^tree\6\bc;M1 ^ Senna glutinosa subsp. x luerssenii, Acacia bivenosa, Acacia ancistrocarpa, Grevillea wickhamii subsp. hispidula, Senna glutinosa subsp. glutinosa\Senna\^shrub\3\bc;G1 ^ Senna artemisioides subsp. helmsii, Tribulus suberosus\Senna\^shrub\2\bi;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Acacia citrinoviridis, Fimbristylis simulans, Polycarpaea holtzei\Triodia\^tussock grass, shrub,herb\1\c

B064

M1 ^ Senna glutinosa subsp. glutinosa, Acacia pruinocarpa, Senna artemisioides subsp. helmsii, Senna glutinosa subsp. pruinosa\Senna\^shrub\3\bc;G1 ^ Acacia adoxa var. adoxa, Senna artemisioides subsp. oligophylla, Tribulus suberosus\Acacia\^shrub, other grass\2\bc;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Fimbristylis simulans, Senna artemisioides subsp. helmsii\Triodia\^tussock grass, shrub\1\c

B065

M1 ^ Grevillea wickhamii subsp. hispidula, Gossypium robinsonii, Acacia ancistrocarpa, Acacia pruinocarpa\Grevillea\^shrub\5\l;M2 ^ Senna artemisioides subsp. oligophylla, Indigofera monophylla, Acacia citrinoviridis, Themeda triandra, Senna glutinosa subsp. glutinosa\Senna\^shrub\3\r;G1+ ^ Triodia epactia, Euphorbia australis, Ptilotus obovatus\Triodia\^tussock grass, shrub\2\cG2 ^ Eriachne mucronata, Paraneurachne muelleri, Ptilotus exaltatus var. exaltatus\Eriachne\^other grass\herb\1\bc

B066

U1 ^Corymbia hamersleyana\Corymbia\^tree\7\bc;M1 ^Acacia dictyophleba, Hakea lorea subsp. lorea\Acacia\^shrub\6\bc;G1+ ^ Triodia epactia, Triodia schinzii, Scaevola spinescens, Senna artemisioides subsp. oligophylla, Rhagodia eremaea\Triodia\^tussock grass, shrub\2\l;G2 ^ Acacia inaequilatera, Dicrastylis cordifolia , Eragrostis eriopoda, Acacia adoxa var. adoxa, Eriachne mucronata\Acacia\^shrub, other grass\1\bc

B067

M1 ^ Eucalyptus leucophloia subsp. leucophloia\Eucalyptus\^tree\6\bc;M2 ^Acacia bivenosa\Acacia\^shrub\5\r;M3 ^ Senna glutinosa subsp. pruinosa, Senna glutinosa subsp. x luerssenii, Eremophila jucunda subsp. pulcherrima, Cenchrus setiger\Senna\^shrub, other grass\3\bc;G1 ^ Triodia epactia, Senna glutinosa subsp. glutinosa\Triodia\^tussock grass, shrub\2\r;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Eriachne mucronata, Eriachne aristidea, Fimbristylis simulans, Senna notabilis\Triodia\^tussock grass, other grass, shrub\1\l

B068

M1+ ^ Triodia schinzii, Acacia dictyophleba, Acacia pachyacra, Grevillea wickhamii subsp. hispidula, Acacia bivenosa\Triodia\^tussock grass, shrub\3\l;G1 ^ Senna artemisioides subsp. oligophylla, Dicrastylis cordifolia, Eragrostis eriopoda, Hybanthus aurantiacus\Senna\^shrub\2\bc;G2 ^ Eriachne aristidea, Corchorus sidoides subsp. sidoides, Senna notabilis, Aristida holathera var. holathera, Cenchrus ciliaris\Eriachne\^other grass,shrub\1\bc

B069

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Grevillea wickhamii subsp. hispidula, Acacia tumida var. pilbarensis\Grevillea\^shrub\4\bc;M2 ^Acacia pachyacra, Senna glutinosa subsp. glutinosa, Triodia epactia\Acacia\^shrub, tussock grass\3\r;G1 ^ Trachymene oleracea subsp. oleracea, Senna artemisioides subsp. oligophylla\Trachymene\^herb, shrub\2\bi;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Cleome viscosa, Mollugo molluginea, Fimbristylis simulans, Polycarpaea holtzei\Triodia\^tussock grass, herb, shrub\1\r

B070

U1 ^ Senna glutinosa subsp. pruinosa\Senna\^tree\7\bi;M1 ^Grevillea wickhamii subsp. hispidula, Eucalyptus leucophloia subsp. leucophloia\Grevillea\^shrub\bc;G1 ^ Tribulus suberosus, Ptilotus calostachyus, Aristida holathera var. holathera\Tribulus\^shrub\2\bi;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Fimbristylis simulans, Senna notabilis\Triodia\^tussock grass, shrub\1\r

B071

M1+ ^ Grevillea wickhamii subsp. hispidula, Acacia inaequilatera, Stylobasium spathulatum\Grevillea\^shrub\4\r;M2 ^ Senna glutinosa subsp. glutinosa, Triodia epactia, Senna glutinosa subsp. pruinosa\Senna\^shrub, tussock grass\3\r;G1 ^ Triodia ? basedowii, Acacia adoxa var. adoxa, Ptilotus calostachyus, Dicrastylis cordifolia, Aristida holathera var. holathera\Triodia\^tussock grass, shrub, other grass\2\r;G2 ^ Fimbristylis simulans, Mollugo molluginea, Polycarpaea longiflora, Senna notabilis, Trianthema glossostigma\Fimbristylis\^shrub, herb\1\bi

B072

M1+ ^ Petalostylis cassioides, Grevillea wickhamii subsp. hispidula, Acacia tumida var. pilbarensis\Petalostylis\^shrub\4\r;M2 ^ Triodia epactia, Stylobasium spathulatum, Hakea chordophylla, Acacia pachyacra, Senna glutinosa subsp. glutinosa\Triodia\^tussock grass, shrub\3\bc;G1 ^ Triodia ? basedowii, Acacia adoxa var. adoxa, Senna artemisioides subsp. oligophylla, Aristida holathera var. holathera, Cleome viscosa\Triodia\^tussock grass, shrub, herb, other grass\2\r;G2 ^ Tephrosia rosea var. glabrior, Mollugo molluginea, Scaevola parvifolia subsp. parvifolia, Acacia maitlandii, Eriachne mucronata\Tephrosia\^shrub, herb, other grass\1\bc

B073

M1 ^ Acacia tumida var. pilbarensis, Grevillea wickhamii subsp. hispidula, Acacia pyrifolia var. pyrifolia Corymbia hamersleyana\Acacia\^shrub, tree\6\l;M2 ^ Gossypium robinsonii\Gossypium\^shrub\4\bc;M3 ^ Triodia epactia, Petalostylis cassioides, Themeda triandra\Triodia\^tussock grass, shrub, other grass\3\r;G1+ ^Cenchrus ciliaris, Cleome viscosa, Hybanthus aurantiacus, Stylobasium spathulatum, Paraneurachne muelleri\Cenchrus\^other grass, herb, shrub\2\c;G2 ^Bonamia rosea, Eragrostis eriopoda, Senna notabilis, Mollugo molluginea, Yakirra australiensis\Bonamia\^shrub, herb\1\r

B074

U1 ^ Corymbia hamersleyana, Acacia pruinocarpa\Corymbia\^tree\6\bc;M1 ^ Acacia ancistrocarpa, Acacia inaequilatera, Atalaya hemiglauca, Acacia dictyophleba\Acacia\^shrub\4\r;M2 ^ Acacia pachyacra, Acacia citrinoviridis\Acacia\^shrub\3\bc;G1+ ^ Triodia epactia, Cenchrus ciliaris, Senna artemisioides subsp. helmsii, Corchorus sidoides subsp. sidoides, Cleome viscosa\Triodia\^tussock grass, other grass,

shrub, herb\2\r;G2 ^ Eragrostis eriopoda, Gomphrena cunninghamii, Senna notabilis\Eragrostis\^other grass, herb, shrub\1\bc

B075

U1 ^ Acacia pachyacra\Acacia\^shrub\6\bc;M1 ^ Petalostylis cassioides, Grevillea wickhamii subsp. hispidula\Petalostylis\^shrub\4\bc;G1+ ^ Triodia epactia, Dicrastylis cordifolia, Cleome viscosa\Triodia\^tussock grass, shrub, herb\2\c;G2 ^ Aristida holathera var. holathera, Senna notabilis, Yakirra australiensis, Velleia panduriformis, Scaevola parvifolia subsp. parvifolia\Aristida\^other grass, herb\1\bc

B076

U1 ^Acacia tumida var. pilbarensis, Acacia pyrifolia var. pyrifolia, Eucalyptus gamophylla\Acacia\^shrub, tree\6\r;M1 ^ Stylobasium spathulatum, Grevillea wickhamii subsp. hispidula, Gossypium robinsonii, Petalostylis cassioides, Acacia maitlandii\Stylobasium\^shrub\4\bc;M2 ^ Triodia epactia, Senna artemisioides subsp. oligophylla, Gossypium australe, Acacia arida\Triodia\^tussock grass, shrub\3\r;G1+^ Cenchrus ciliaris, Acacia spondylophylla, Ptilotus obovatus, Corchorus sidoides subsp. sidoides, Hybanthus aurantiacus\Cenchrus\^other grass, shrub\2\l;G2 ^ Cleome viscosa, Ptilotus exaltatus var. exaltatus, Euphorbia biconvexa, Polycarpaea longiflora, Eriachne aristidea\Cleome\^herb\1\bi

B077

M1 ^Hakea lorea subsp. lorea\Hakea\^shrub\4\bi;M2 ^ Grevillea wickhamii subsp. hispidula, Acacia pyrifolia var. pyrifolia, Senna glutinosa subsp. pruinosa\Grevillea\^shrub\3\bc;G1 ^ Ptilotus calostachyus\Ptilotus\^herb\2\bc;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Triodia epactia, Fimbristylis simulans, Indigofera monophylla, Dysphania rhadinostachya subsp. rhadinostachya\Triodia\^tussock grass, shrub\1\r

B078

M1 ^ Acacia pyrifolia var. pyrifolia\Acacia\^shrub\4\bc;M2 ^ Senna glutinosa subsp. glutinosa, Acacia ?synchronicia\Senna\^shrub\3\bi;G1 ^ Ptilotus exaltatus var. exaltatus, Ptilotus calostachyus, Grevillea wickhamii subsp. hispidula, Keraudrenia nephrosperma, Senna artemisioides subsp. oligophylla\Ptilotus\^herb, shrub\2\bc;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Solanum lasiophyllum, Triodia epactia, Acacia adoxa var. adoxa, Corchorus lasiocarpus ?subsp. parvus\Triodia\^tussock grass, shrub, herb\1\r

B079

M1 ^ Acacia tumida var. pilbarensis, Acacia pyrifolia var. pyrifolia, Atalaya hemiglauca, Gossypium robinsonii, Hakea chordophylla\Acacia\^shrub\3\r;G1+ ^ Senna artemisioides subsp. oligophylla, Triodia epactia, Grevillea wickhamii subsp. hispidula, Tephrosia rosea var. glabrior, Aristida holathera var. holathera\Senna\^shrub, tussock grass, other grass\2\l;G2 ^ Indigofera monophylla, Eriachne mucronata, Gomphrena cunninghamii, Petalostylis cassioides, Cleome viscosa\Indigofera\^shrub, other grass, herb\1\bc

B080

M1 ^ Grevillea wickhamii subsp. hispidula, Acacia ?synchronicia, Hakea lorea subsp. lorea\Grevillea\^shrub\4\bc;G1 ^ Senna artemisioides subsp. helmsii, Ptilotus calostachyus, Senna

glutinosa subsp. pruinosa\Senna\^shrub\2\bc;G2+ ^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Fimbristylis simulans\Triodia\^tussock grass, shrub\1\l

B081

U1 ^ Corymbia hamersleyana\Corymbia\^tree\7\bc;M1 ^ Acacia sclerosperma subsp. sclerosperma, Acacia pruinocarpa, Acacia pachyacra\Acacia\^shrub\4\bc;M2+ ^ Triodia epactia, Acacia ancistrocarpa, Acacia inaequilatera, Acacia citrinoviridis, Acacia ?synchronicia\Triodia\^tussock grass, shrub\3\c;G1 ^ Grevillea wickhamii subsp. hispidula, Indigofera monophylla, Senna artemisioides subsp. oligophylla\Grevillea\^shrub\2\bc;G2 ^Cleome viscosa\Cleome\^herb\1\bi

B082

M1 ^ Acacia pachyacra, Hakea lorea subsp. lorea, Acacia pruinocarpa\Acacia\^shrub\4\bc;M2 ^ Acacia dictyophleba, Chrysopogon fallax\Acacia\^shrub\3\bc;G1+ ^ Triodia epactia, Eragrostis eriopoda, Gossypium australe, Corchorus sidoides subsp. sidoides\Triodia\^tussock grass, other grass, shrub\2\r;G2 ^Cenchrus ciliaris, Aristida holathera var. holathera, Euphorbia biconvexa, Solanum lasiophyllum, Senna notabilis\Cenchrus\^other grass, shrub, herb\1\bi

B083

M1 ^ Acacia sclerosperma subsp. sclerosperma, Acacia sclerosperma subsp. sclerosperma, Acacia inaequilatera, Acacia ?synchronicia, Acacia pruinocarpa\Acacia\^shrub\4\bc;M2 ^ Acacia synchronicia, Hakea lorea subsp. lorea\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Senna artemisioides subsp. oligophylla\Cenchrus\^other grass, shrub\2\r

B084

U1 ^Acacia pruinocarpa\Acacia\^tree\6\bc;M1 ^ Acacia dictyophleba, Acacia ancistrocarpa, Grevillea wickhamii subsp. hispidula\Acacia\^shrub\4\bc;M2+ ^ Triodia basedowii, Chrysopogon fallax, Acacia tumida var. pilbarensis, Acacia citrinoviridis\Triodia\^tussock grass\3\r;G1 ^ Cenchrus ciliaris, Acacia spondylophylla, Polycarpaea longiflora, Eragrostis tenellula, Euphorbia biconvexa\Cenchrus\1\r

B085

U1 ^Acacia pruinocarpa\Acacia\^tree\6\bc;M1 ^ Corymbia hamersleyana, Atalaya hemiglauca\Corymbia\^tree, shrub\5\bc;M2 ^ Acacia pyrifolia var. pyrifolia, Ptilotus obovatus, Eucalyptus victrix\Acacia\^shrub\3\bc;G1 ^ Solanum lasiophyllum, Corchorus sidoides subsp. sidoides, Triodia epactia\Solanum\^shrub\2\bi;G2+ ^ Cenchrus ciliaris, Tribulus ?occidentalis\Cenchrus\^other grass, herb\1\r

B086

U1+ ^Acacia pruinocarpa\Acacia\^tree\7\bc;M1 ^ Acacia citrinoviridis, Hakea Iorea subsp. Iorea\Acacia\^shrub\4\bc;G1 ^Cenchrus ciliaris\cenchrus\^other grass\2\bc

B087

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia dictyophleba, Acacia inaequilatera\Acacia\^shrub\4\bc;M2 ^ Rhagodia eremaea, Acacia citrinoviridis, Acacia synchronicia\Rhagodia\^shrub\3\bc;G1+ ^ Triodia basedowii, Cenchrus ciliaris\Triodia\^tussock grass,

other grass\2\I;G2 ^ Eragrostis eriopoda, Ptilotus obovatus var. obovatus, Solanum lasiophyllum, Aristida holathera var. holathera, Ptilotus exaltatus var. exaltatus\Eragrostis\^other grass, shrub, herb\1\bc

B088

U1 ^ Corymbia hamersleyana\Corymbia\^tree\7\bc;U2 ^ Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^tree, shrub\6\bc;M1 ^ Acacia dictyophleba, Acacia synchronicia, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Acacia aneura, Atalaya hemiglauca\Acacia\^mallee tree, shrub\3\bi;G1+ ^ Cenchrus ciliaris, Solanum lasiophyllum, Grevillea wickhamii subsp. hispidula, Senna artemisioides subsp. oligophylla, Boerhavia coccinea\Cenchrus\^other grass, shrub, vine\2\l

B089

M1 ^Acacia inaequilatera\Acacia\^shrub\4\bi;M2 ^ Acacia dictyophleba, Senna artemisioides subsp. helmsii, Acacia ancistrocarpa\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Triodia basedowii, Triodia epactia, Eragrostis eriopoda\^other grass, tussock grass\2\l

B090

U1 ^ Corymbia hamersleyana\Corymbia\^tree\7\bc;M1 ^ Acacia citrinoviridis, Acacia synchronicia, Acacia inaequilatera, Acacia dictyophleba\Acacia\^shrub\4\bc;M2 ^ Hakea lorea subsp. lorea\Hakea\^shrub\3\bi;G1+ ^ Cenchrus ciliaris\Cenchrus\^other grass\2\r;G2 ^Cenchrus setiger, Solanum lasiophyllum, Cleome viscosa, Salsola australis, Sclerolaena cornishiana\Cenchrus\1\bc

B091

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bi;M1 ^ Acacia pachyacra, Acacia sericophylla\Acacia\^shrub\4\bc;M2 ^ Aristida inaequiglumis, Senna artemisioides subsp. oligophylla, Acacia inaequilatera\Aristida\^other grass, shrub\3\bc;G1+ ^ Cenchrus ciliaris, Eragrostis eriopoda, Solanum lasiophyllum, Eremophila longifolia, Corchorus sidoides subsp. sidoides\Cenchrus\^other grass, shrub, herb\2\l;G2 ^ Aristida holathera var. holathera, Acacia pruinocarpa, Senna notabilis, Boerhavia coccinea\Aristida\^other grass, shrub, vine\1\bc

B092

U1+ ^Acacia pruinocarpa, Corymbia hamersleyana\Acacia\^tree\6\r;M1 ^ Acacia synchronicia, Hakea lorea subsp. lorea, Acacia inaequilatera, Acacia citrinoviridis\Acacia\^shrub\4\bc;G1 ^ Cenchrus ciliaris, Aerva javanica\Cenchrus\^other grass\2\r

B093

U1 ^ Eucalyptus leucophloia, Acacia aneura \Eucalyptus\^tree, mallee tree\6\r;M1+ ^ Acacia synchronicia, Melaleuca glomerata, Acacia tetragonophylla\Acacia\^ shrub\4\r;M2 ^ Eremophila forrestii ?subsp. forrestii, Chrysopogon fallax\Eremophila\^shrub\3\bi;G1 ^ Maireana pyramidata, Rhagodia eremaea, Ptilotus obovatus var. obovatus, Scaevola spinescens, Solanum lasiophyllum\Maireana\^shrub\2\bc;G1+ ^ Cenchrus ciliaris, Atriplex amnicola, Enteropogon ramosus, Ptilotus obovatus, Cleome viscosa\Cenchrus\^other grass, shrub, herb\1\r

B094

U1+ ^ Acacia aptaneura\Acacia\^tree\7\r;M1 ^ Acacia tetragonophylla, Vachellia farnesiana\Acacia\^shrub\6\r;M2 ^ Acacia synchronicia, Eremophila longifolia, Aristida

inaequiglumis\Acacia\^shrub, other grass\3\bc;G1 ^ Cleome viscosa, Eriachne flaccida, Solanum lasiophyllum, Cenchrus ciliaris\Cleome\^herb, other grass, shrub\2\bc;G2 ^ Eragrostis tenellula, Eriachne flaccida, Senna artemisioides subsp. helmsii, Ptilotus gomphrenoides, Streptoglossa ?decurrens\Eragrostis\^other grass, herb\1\bi

B095

U1+ ^ Acacia aptaneura\Acacia\^tree\7\c;M1 ^ Psydrax latifolia\Psydrax\^shrub\6\bc;M2 ^ Acacia xiphophylla, Acacia tetragonophylla, Acacia synchronicia\Acacia\4\r;G1 ^ Ptilotus obovatus, Cenchrus ciliaris, Enteropogon ramosus\Ptilotus\^shrub, other grass\2\r;G2 ^ Eragrostis tenellula, Ptilotus macrocephalus, Eremophila ?latrobei, Blumea tenella, Cheilanthes sieberi subsp. sieberi\Eragrostis\^other grass, shrub, herb\1\bi

B096

U1+ ^ Acacia aptaneura, Acacia tetragonophylla, Acacia synchronicia, Atalaya hemiglauca\Acacia\^tree, shrub\6\r;M1 ^ Acacia synchronicia\Acacia\^shrub\4\bc;M2 ^ Ptilotus obovatus, Enchylaena tomentosa, Aristida inaequiglumis, Scaevola spinescens\Ptilotus\^shrub, other grass\3\bc;G1 ^ Cenchrus ciliaris, Eriachne flaccida, Rhagodia eremaea, Solanum lasiophyllum\Cenchrus\^other grass, shrub\2\r;G2 ^ Eragrostis tenellula, Aristida holathera var. holathera, Cleome viscosa, Blumea tenella, Senna notabilis\Eragrostis\^other grass, herb, shrub\1\bc

B097

M1+ ^ Acacia synchronicia, Acacia xiphophylla\Acacia\^shrub\6\r;M2 ^ Rhagodia eremaea, Acacia tetragonophylla, Scaevola spinescens, Eremophila forrestii ?subsp. forrestii\Rhagodia\^shrub\3\bc;G1 ^ Cenchrus ciliaris, Ptilotus obovatus, Ptilotus obovatus var. obovatus, Maireana pyramidata\Cenchrus\^other grass, shrub\2\bc;G2 ^ Solanum lasiophyllum, Trianthema triquetra, Sclerolaena cuneata, Enchylaena tomentosa, Eragrostis tenellula\^shrub, herb, other grass\1\bc

B098

M1+ ^Acacia xiphophylla, Acacia synchronicia\Acacia\^shrub\4\r;G1 ^ Rhagodia eremaea\Rhagodia\^shrub\2\bi;G2 ^ Enchylaena tomentosa, Sclerolaena cuneata, Eragrostis tenellula\^shrub, herb, other grass\1\bc

B099

U1 ^ Acacia aptaneura, Eucalyptus victrix\Acacia\^tree\7\bc;M1 ^ Acacia tetragonophylla\Acacia\^shrub\6\r;M2 ^ Vachellia farnesiana\Vachellia\^shrub\6\bc;M3+ ^ Aristida inaequiglumis, Chrysopogon fallax, Hakea Iorea subsp. Iorea, Rhagodia eremaea\Aristida\^other grass, shrub\3\r;G1 ^ Acacia synchronicia\Acacia\^shrub\2\bc;G2 ^ Boerhavia coccinea, Cenchrus ciliaris, Senna artemisioides subsp. helmsii, Malvastrum americanum, Ipomoea muelleri\Boerhavia\^vine, other grass, shrub, herb\1\bc

A040

M1 ^Eucalyptus gamophylla, Acacia sclerosperma subsp. sclerosperma\Eucalyptus\^tree, shrub\5\r;M2 ^Petalostylis labicheoides, Stylobasium spathulatum\Petalostylis\^shrub\3\r;G1+ ^Triodia basedowii, Ptilotus astrolasius, Bonamia rosea, Eragrostis eriopoda, Scaevola parvifolia subsp. parvifolia\Triodia\^tussock grass, shrub, vine, other grass\2\l

A041

M1 ^Acacia sclerosperma subsp. sclerosperma, Acacia inaequilatera, Eucalyptus gamophylla, Hakea lorea subsp. lorea\Acacia\4\bc;M2 ^Stylobasium spathulatum\Stylobasium\3\bc;G1+ ^Triodia basedowii, Ptilotus astrolasius, Scaevola parvifolia subsp. parvifolia, Eragrostis eriopoda, Bonamia rosea\Triodia\^tussock grass, shrub, other grass, vine\2\r

A042

M1 ^Acacia aneura, Vachellia farnesiana, Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea\Acacia\mallee shrub, shrub\4\r;M2 ^Acacia synchronicia, Scaevola spinescens, Eremophila forrestii ?subsp. forrestii, Senna artemisioides subsp. oligophylla x helmsii, Senna glutinosa subsp. chatelainiana\Acacia\mathbb{\shrub\3\r;G1+ ^Cenchrus ciliaris, Chrysopogon fallax, Euphorbia australis, lpomoea muelleri, Psydrax latifolia\Cenchrus\mathbb{\shrub\3\r;G1+ \text{orchrus\chious} subsp. vine\2\r

A043

M1 ^Acacia aneura, Aerva javanica\Acacia\Mallee shrub, other grass\4\bi;M2 ^Acacia synchronicia, Maireana pyramidata, Scaevola spinescens, Rhagodia eremaea, Eremophila forrestii ?subsp. forrestii\Acacia\^shrub\3\r;G1 ^Cenchrus ciliaris, Triodia basedowii, Boerhavia coccinea, Chrysopogon fallax, Atriplex ?amnicola\Cenchrus\^other grass, tussock grass, vine, shrub, herb\2\r

A044

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia pachyacra, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^Acacia ancistrocarpa\Acacia\^shrub\3\bi;G1+ ^Triodia epactia, Eragrostis eriopoda, Aristida contorta, Trianthema pilosa, Paraneurachne muelleri\Triodia\^tussock grass, other grass, herb\2\r

A045

M1 ^Acacia inaequilatera, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^Senna artemisioides subsp. oligophylla x helmsii, Aristida inaequiglumis\Senna\^shrub, other grass\3\bi;G1+ ^Triodia epactia, Eragrostis eriopoda, Paraneurachne muelleri, Aristida contorta, Trianthema pilosa\Triodia\^tussock grass, other grass, herb\2\I

A046

U1 ^Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^Scaevola spinescens, Atalaya hemiglauca\Scaevola\^shrub\3\bc;G1+ ^Triodia epactia, Cenchrus ciliaris, Chrysopogon fallax, Senna artemisioides subsp. oligophylla, Eragrostis eriopoda\Triodia\^tussock grass, other grass, shrub\2\l

A047

U1 ^Eucalyptus victrix\Eucalyptus\^tree\6\bc;M1 ^Acacia citrinoviridis, Acacia elachantha, Acacia pyrifolia var. pyrifolia\Acacia\^shrub\6\r;M2 ^Corchorus crozophorifolius, Atalaya hemiglauca, Acacia ?coriacea subsp. pendens, Gossypium robinsonii\Corchorus\^shrub\3\bc\G1 ^ Cenchrus ciliaris, Gomphrena cunninghamii, Triodia epactia, Boerhavia coccinea, Duperreya commixta\Cenchrus\^other grass, tussock grass, vine, herb\2\l

A048

U1 ^ Eucalyptus victrix\Eucalyptus\^tree\6\r;M1 ^ Acacia citrinoviridis, Acacia pyrifolia var. pyrifolia\Acacia\^shrub\4\r;M2 ^ Acacia ?coriacea subsp. pendens, Atalaya hemiglauca, Gossypium robinsonii\Acacia\^shrub\3\bc;G1+ ^ Corchorus crozophorifolius, Indigofera monophylla, Amaranthus undulatus, Cenchrus ciliaris, Tephrosia rosea var. glabrior\Corchorus\^shrub, vine, other grass\2\r

A049

M1 ^Acacia pruinocarpa, Acacia sclerosperma subsp. sclerosperma, Acacia citrinoviridis, Acacia inaequilatera\Acacia\^shrub\4\bc;M2 ^ Atalaya hemiglauca\Atalaya\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Ptilotus obovatus, Solanum lasiophyllum, Boerhavia coccinea, Euphorbia ?australis\Cenchrus\^other grass, shrub, herb, vine\2\c

A050

M1 ^ Acacia sclerosperma subsp. sclerosperma, Acacia pachyacra, Acacia pruinocarpa, Acacia inaequilatera, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Scaevola spinescens, Atalaya hemiglauca, Acacia ancistrocarpa\Scaevola\^shrub\3\bc;G1+ ^ Triodia epactia, Cenchrus ciliaris, Senna artemisioides subsp. oligophylla, Chrysopogon fallax, Boerhavia coccinea\Triodia\^tussock grass, other grass, shrub, herb, vine\2\c

A051

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia pruinocarpa, Hakea lorea subsp. lorea, Acacia citrinoviridis, Eremophila longifolia\Acacia\^shrub\4\bc;M2 ^ Atalaya hemiglauca\Atalaya\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Triodia epactia, Boerhavia coccinea, Ptilotus obovatus, Cleome viscosa\Cenchrus\^other grass, tussock grass, vine, shrub, herb\2\l

A052

U1 ^ Eucalyptus victrix\Eucalyptus\^tree\6\bc;M1 ^Acacia pruinocarpa, Acacia citrinoviridis\Acacia\^shrub\4\bc;M2 ^ Codonocarpus cotinifolius, Acacia ancistrocarpa, Atalaya hemiglauca\ Codonocarpus\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Corchorus sidoides subsp. sidoides, Corchorus tridens, Aerva javanica, Boerhavia coccinea\Cenchrus\^other grass, herb\2\l

A053

U1 ^Eucalyptus victrix\Eucalyptus\^tree\6\bc;M1+ ^ Acacia citrinoviridis, Acacia pyrifolia var. pyrifolia\Acacia\^shrub\4\l;M2 ^ Atalaya hemiglauca, Gossypium robinsoniim, Clerodendrum floribundum var. angustifolium\Atalaya\^shrub\3\bc;G1 ^ Corchorus crozophorifolius, Cenchrus ciliaris, Triodia epactia, Duperreya commixta, Cleome viscosa\Corchorus\^herb, other grass, tussock grass\2\r

A054

M1 ^ Acacia inaequilatera, Acacia pruinocarpa, Acacia dictyophleba\Acacia\\shrub\4\bc;M2 ^ Acacia synchronicia, Senna artemisioides subsp. oligophylla x helmsii\Acacia\\shrub\3\bi;G1+ ^ Triodia epactia, Cenchrus ciliaris, Boerhavia coccinea, Euphorbia boophthona, Solanum lasiophyllum\Triodia\\tussock grass, other grass, vine, shrub\2\l

A055

U1 ^ Eucalyptus victrix, Corymbia hamersleyana\Eucalyptus\^tree\6\r;M1 ^Acacia pruinocarpa, Acacia citrinoviridis, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Atalaya hemiglauca, Codonocarpus cotinifolius\Atalaya\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Duperreya commixta, Corchorus tridens, Aerva javanica, Ptilotus obovatus\Cenchrus\^other grass, herb\2\l

A056

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia inaequilatera, Acacia citrinoviridis, Acacia pruinocarpa, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Eremophila forrestii ?subsp. forrestii, Senna artemisioides subsp. oligophylla x helmsii\Eremophila\^shrub\3\bi;G1+ ^ Triodia epactia, Cenchrus ciliaris, Senna artemisioides subsp. oligophylla, Senna notabilis, Solanum lasiophyllum\Triodia\^tussock grass, other grass, shrub, herb\2\l

A057

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Hakea lorea subsp. lorea, Acacia inaequilatera, Acacia dictyophleba, Acacia tumida var. pilbarensis, Acacia pachyacra\Hakea\^shrub\4\bc;M2+ ^ Triodia schinzii, Eremophila longifolia, Senna artemisioides subsp. oligophylla ? x helmsii, Grevillea wickhamii subsp. hispidula\Triodia\^tussock grass, shrub\3\r;G1 ^ Ptilotus polystachyus, Aristida holathera var. holathera, Eragrostis eriopoda, Triodia epactia, Corchorus sidoides subsp. sidoides\Ptilotus\^shrub, other grass, tussock grass, herb\2\bc

A058

M1 ^ Hakea chordophylla, Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba, Acacia pruinocarpa, Anthobolus leptomerioides\Hakea\^shrub\5\bc;M2+ ^ Triodia schinzii, Petalostylis labicheoides, Acacia bivenosa\Triodia\^tussock grass, shrub\3\l;G1 ^ Scaevola parvifolia subsp. parvifolia, Dicrastylis cordifolia, Trianthema pilosa, Aristida holathera var. holathera, Bonamia rosea\Scaevola\^shrub, herb, other grass\2\bi

A059

M1 ^ Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba, Acacia pachyacra, Acacia inaequilatera, Eucalyptus gamophylla\Acacia\^shrub, tree\5\bc;M2 ^ Acacia ancistrocarpa, Grevillea wickhamii subsp. hispidula\Acacia\^shrub\3\bc;G1+ ^ Triodia basedowii, Aristida holathera var. holathera, Ptilotus polystachyus, Corchorus sidoides subsp. sidoides, Cenchrus ciliaris\Triodia\^tussock grass, other grass, herb\2\l

A060

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia inaequilatera, Acacia sclerosperma subsp. sclerosperma, Eucalyptus gamophylla, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;M2 ^ Acacia ancistrocarpa, Aristida inaequiglumis, Atalaya hemiglauca, Senna glutinosa subsp. glutinosa\Acacia\^shrub, other grass\3\bi;G1+ ^ Triodia basedowii, Bonamia rosea, Cenchrus ciliaris, Ptilotus astrolasius, Corchorus sidoides subsp. sidoides\Triodia\^tussock grass, vine, other grass, herb\2\l

A061

M1 ^ Acacia inaequilatera, Acacia aneura, Hakea Iorea subsp. Iorea, Eucalyptus gamophylla, Acacia sclerosperma subsp. sclerosperma, Anthobolus leptomerioides\Acacia\^shrub, tree, mallee tree\4\bc;M2 ^

Petalostylis labicheoides, Acacia ancistrocarpa, Aristida inaequiglumis\Petalostylis\^shrub, other grass\3\bc;G1+ ^ Triodia basedowii, Bonamia rosea, Scaevola parvifolia subsp. parvifolia, Dicrastylis cordifolia, Ptilotus polystachyus\Triodia\^tussock grass, vine, shrub, herb\2\r

A062

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia pachyacra, Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea, Acacia tumida var. pilbarensis\Acacia\4\bc;M2+ ^ Triodia schinzii, Grevillea wickhamii subsp. hispidula, Petalostylis labicheoides\Triodia\^tussock grass, shrub\3\l;G1 ^ Aristida holathera var. holathera, Trianthema pilosa, Dicrastylis cordifolia, Eragrostis eriopoda, Bonamia rosea\Aristida\^other grass, herb, vine\2\bc

A063

M1 ^ Hakea lorea subsp. lorea, Acacia dictyophleba, Acacia pachyacra\Hakea\^shrub\4\bc;M2 ^ Petalostylis labicheoides, Acacia ancistrocarpa, Grevillea wickhamii subsp. hispidula, Triodia schinzii\Petalostylis\^shrub, tussock grass\3\bc;G1+ ^ Triodia epactia, Eragrostis eriopoda, Trianthema pilosa, Dicrastylis cordifolia, Scaevola parvifolia subsp. parvifolia\Triodia\^tussock gras, herb, shrub\2\r

A064

M1 ^ Acacia inaequilatera, Acacia pachyacra\Acacia\^shrub\4\bi;M2 ^ Acacia ancistrocarpa\Acacia\^shrub\3\bc;G1+ ^ Triodia basedowii, Dicrastylis cordifolia, Bonamia rosea, Gossypium australe, Ptilotus obovatus\Triodia\^tussock grass, shrub, vine\2\I

A065

M1 ^Acacia pachyacra, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;G1+ ^ Triodia basedowii, Bonamia rosea, Dicrastylis cordifolia, Senna artemisioides subsp. oligophylla, Aristida contorta, Cleome viscosa\Triodoa\^tussock grass, vine, other grass, herb\2\l

A066

M1 ^ Acacia pachyacra, Hakea lorea subsp. lorea, Acacia dictyophleba, Acacia citrinoviridis\Acacia\^shrub\4\bc;M2 ^ Acacia ancistrocarpa, Triodia schinzii, Acacia synchronicia, Aristida inaequiglumis, Grevillea wickhamii subsp. hispidula\Acacia\^shrub, tussock grass, other grass\3\bc;G1+ ^ Triodia basedowii, Solanum lasiophyllum, Aristida holathera var. holathera, Senna artemisioides subsp. oligophylla, Bonamia rosea\Triodia\^tussock grass, other grass, shrub, vine\l

A067

M1 ^Acacia inaequilatera, Hakea lorea subsp. lorea, Acacia dictyophleba, Acacia pachyacra\Acacia\^shrub\4\bi;M2 ^ Aristida inaequiglumis, Acacia ?sericophylla, Acacia sericophylla, Acacia ancistrocarpa\Aristida\^other grass, shrub\3\bc;G1+ ^ Triodia basedowii, Bonamia rosea, Indigofera monophylla, Aristida holathera var. holathera, Paraneurachne muelleri\Triodia\^tussock grass, vine\2\r

A068

U1 ^Eucalyptus victrix\Eucalyptus\^tree\6\bc;M1+ ^Acacia pruinocarpa, Hakea lorea subsp. lorea, Acacia citrinoviridis\Acacia\^shrub\4\r;M2 ^ Atalaya hemiglauca\Atalaya\^shrub\3\bc;G1 ^ Cenchrus ciliaris, Aerva javanica\Cenchrus\^other grass\2\r

A069

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^Acacia pruinocarpa, Acacia inaequilatera, Acacia citrinoviridis, Hakea lorea subsp. lorea\Acacia\^shrub\4\bc;G1+ ^ Triodia epactia, Cenchrus ciliaris, Eragrostis eriopoda, Senna notabilis, Aristida holathera var. holathera\Triodia\^tussock grass, other grass, shrub\2\r

A070

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia pyrifolia var. ?morrisonii, Acacia elachantha, Acacia aneura\Acacia\^shrub, mallee shrub\4\r;M2 ^ Gossypium robinsonii, Atalaya hemiglauca, Eremophila longifolia\Gossypium\^shrub\3\bi;G1+ ^ Cenchrus ciliaris, Triodia epactia, Eriachne helmsii, Chrysopogon fallax, Boerhavia coccinea\Cenchrus\^other grass, tussock grass, vine\2\l

A071

M1 ^ Eucalyptus gamophylla, Hakea lorea subsp. lorea, Acacia inaequilatera\Eucalyptus\^tree, shrub\4\bc;M2 ^ Acacia ancistrocarpa, Acacia tetragonophylla, Aristida inaequiglumis\Acacia\^shrub, other grass\3\bi;G1+ ^ Triodia basedowii, Bonamia rosea, Corchorus sidoides subsp. sidoides, Dicrastylis cordifolia, Eragrostis eriopoda\Triodia\^tussock grass, herb, other grass\2\l

A072

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Eucalyptus gamophylla, Acacia inaequilatera, Hakea lorea subsp. lorea, Anthobolus leptomerioides\Eucalyptus\^tree, shrub\4\r;M2 ^ Petalostylis labicheoides, Acacia ancistrocarpa\Petalostylis\^shrub\3\bc;G1+ ^ Triodia basedowii, Bonamia rosea, Ptilotus astrolasius, Indigofera monophylla, Scaevola parvifolia subsp. parvifolia\Triodia\^tussock grass, herb, vine, shrub\2\l

A073

M1 ^Acacia xiphophylla\Acacia\^shrub\4\bc;M2 ^ Acacia synchronicia\Acacia\^shrub\3\bc;G1+ ^ Goodenia prostrata, Salsola australis, Solanum lasiophyllum, Cleome viscosa, Dactyloctenium radulans\Goodenia\^herb, shrub\2bc

A074

M1+ ^Acacia aneura\Acacia\^mallee tree\6\1;G1 ^ Bidens bipinnata, Abutilon lepidum, Bulbostylis barbata, Perotis rara, Psydrax latifolia\Bidens\^herb\2\r

A075

M1 ^ Acacia aneura, Acacia xiphophylla, Vachellia farnesiana\Acacia\^mallee tree, shrub\5\r;M2 ^ Acacia synchronicia, Acacia tetragonophylla\Acacia\^shrub\3\r;G1+ ^ Cenchrus ciliaris, Salsola australis, Eragrostis eriopoda, Malvastrum americanum, Sporobolus australasicus\Cenchrus\^other grass\2\l

A076

M1+ ^ Acacia aneura, Hakea lorea subsp. lorea\Acacia\^mallee tree, shrub\4\l;M2 ^ Acacia tetragonophylla, Acacia synchronicia\Acacia\^shrub\3\bi;G1 ^ Chrysopogon fallax, Cenchrus ciliaris, Senna notabilis, Malvastrum americanum, Abutilon lepidum\Chrysopogon\^other grass, shrub\2\r

A077

M1+ ^ Acacia aneura, Hakea lorea subsp. lorea\Acacia\^mallee tree, shrub\4\l;M2 ^ Acacia tetragonophylla, Acacia synchronicia\Acacia\^shrub\3\bi;G1 ^ Chrysopogon fallax, Cenchrus ciliaris, Perotis rara, Eremophila lanceolata, Psydrax latifolia\Chrysopogon\^other grass, shrub\2\r

A078

M1 ^ Acacia pachyacra, Acacia pruinocarpa\Acacia\^shrub\4\bi;M2 ^ Acacia synchronicia\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Cleome viscosa, Salsola australis, Boerhavia coccinea, Senna notabilis\Cenchrus\^other grass, herb, vine, shrub\2\bc

A079

M1 ^Acacia aneura, Acacia pruinocarpa, Acacia citrinoviridis, Acacia inaequilatera, Hakea Iorea subsp. Iorea\Acacia\^mallee tree, shrub\4\r;M2 ^ Acacia synchronicia\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Salsola australis, Senna artemisioides subsp. oligophylla, Sporobolus australasicus, Triodia epactia\Cenchrus\^other grass, herb, shrub, tussock grass\2\I

A080

M1 ^ Acacia aneura, Hakea Iorea subsp. Iorea\Acacia\^mallee tree, shrub\4\r;M2 ^ Acacia synchronicia\Acacia\^shrub\3\r;G1+ ^ Cenchrus ciliaris, Triodia epactia, Chrysopogon fallax, Dysphania rhadinostachya, Abutilon lepidum\Cenchrus\^other grass, tussock grass, herb\2\l

A081

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia citrinoviridis, Acacia pruinocarpa, Acacia dictyophleba, Acacia inaequilatera, Hakea lorea subsp. lorea\Acacia\4\r;M2 ^ Atalaya hemiglauca, Acacia synchronicia, Acacia tetragonophylla, Senna artemisioides subsp. oligophylla ? x helmsii\Atalaya\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Triodia epactia, Aerva javanica, Salsola australis, Senna notabilis\Cenchrus\^other grass, tussock grass, herb\2\l

A082

U1 ^ Corymbia hamersleyana\Corymbia\^tree\6\bc;M1 ^ Acacia citrinoviridis, Acacia aneura, Hakea lorea subsp. lorea\Acacia\^shrub, mallee tree\4\r;M2 ^ Acacia synchronicia, Acacia tetragonophylla, Senna artemisioides subsp. oligophylla ? x helmsii\Acacia\^shrub\3\bc;G1+ ^ Cenchrus ciliaris, Sclerolaena cornishiana, Triodia epactia, Cleome viscosa, Salsola australis\Cenchrus\^other grass, herb, tussock grass\2\r

B123

U1+ ^ Acacia aptaneura\Acacia\^tree\6\r;M1 ^ Acacia synchronicia\Acacia\^shrub\5\bc;M2 ^ Senna artemisioides subsp. oligophylla, Senna artemisioides subsp. helmsii, Aristida inaequiglumis\Senna\^shrub, other grass\3\bi;G1 ^ Solanum lasiophyllum, Eremophila forrestii ?subsp. forrestii\Solanum\^shrub\2\bcl;G2 ^ Eriachne mucronata, Cleome viscosa, Senna notabilis, Salsola australis, Eremophila lanceolata\Eriachne\^other grass, herb, shrub\1\bc

B124

U1+ ^ Acacia aptaneura, Acacia pruinocarpa\Acacia\^tree\6\r;M1 ^ Anthobolus leptomerioides, Acacia synchronicia, Psydrax latifolia, Acacia inaequilatera, Acacia tetragonophylla\Anthobolus\^shrub\4\bc;M2 ^ Triodia epactia, Dodonaea petiolaris, Rhagodia eremaea, Senna artemisioides subsp. oligophylla\Triodia\^tussock grass, shrub\3\r;G1 ^ Cenchrus ciliaris, Eremophila forrestii ?subsp. forrestii, Ptilotus obovatus var. obovatus, Cleome viscosa, Indigofera monophylla\Cenchrus\^other grass, shrub, herb\2\bc;G2 ^ Sporobolus australasicus, Maireana planifolia, Gossypium australe, Ptilotus exaltatus var. exaltatus, Bidens bipinnata\Sporobolus\^other grass, shrub, herb\1\bc

B125

U1 ^ Acacia aptaneura, Acacia pruinocarpa\Acacia\^tree\6\r;M1 ^ Acacia inaequilatera, Acacia ancistrocarpa, Acacia tetragonophylla, Psydrax latifolia\Acacia\^shrub\3\bc;M2+ ^ Triodia epactia, Eremophila forrestii ?subsp. forrestii, Aristida inaequiglumis\Triodia\^tussock grass, shrub, other grass\3\r;G1 ^ Solanum lasiophyllum, Gossypium australe, Maireana planifolia\Solanum\^shrub\2\bi;G2 ^ Senna notabilis, Sporobolus australasicus, Eremophila lanceolata, Salsola australis, Dactyloctenium radulans\Senna\^shrub, other grass\1\bc

C001

U1 ^Corymbia hamersleyana\Corymbia\^tree\5\bi;M1+^Triodia schinzii, Acacia tumida var. Pilbarensis, Grevillea wickhamii subsp. Hispidula, Sida cardiophylla\Trodia\^tussock grasses\3\l;G1 ^Triodia epactia, Aristida holathera var. Holathera, *Corchorus elachocarpus*, Ptilotus polystachyus\Trodia\tussock grasses\2\l;G2 Scaevola parvifolia subsp. Parvifolia, Acacia ancistrocarpa, Paraneurachne muelleri, *Bonamia rosea*, Eriachne aristidea\Scaevola\^low shrub\1\bc

C002

U1^ Corymbia hamersleyana\Corymbia\^low tree\6\bc;M1+ ^Acacia inaequilatera, Acacia pachyacra, Acacia sericophylla, Grevillea wickhamii subsp. Hispidula\Acacia\^Tree mallee\3\bc;M2 Cullen leucanthum, Clerodendrum floribundum var. Angustifolium\Cullen\^heath shrub\3\bc;M3 Triodia schinzii, Acacia dictyophleba, Petalostylis labicheoides, Cymbopogon obtectus, Triodia basedowii\Trodia\^heath shrub\3\r;G1^ Triodia epactia, Hibiscus sturtii var. Platychlamys, Cenchrus ciliaris, Acacia ancistrocarpa, Cleome viscose\Trodia\^tussock grass\2\l;G2 Eragrostis eriopoda, *Corchorus elachocarpus*, Aristida holathera var. Holathera, *Bonamia rosea,* Scaevola parvifolia subsp. Parvifolia, Solanum central\Eragrostis\^tussock grass\2\bc; G3 Trianthema pilosa, Tribulus macrocarpus\Trianthema\^tussock grass\1\bi

C003

M1 Acacia inaequilatera, Hakea lorea subsp. Lorea\Acacia\^shrub\4\bc; M2+^ Acacia ancistrocarpa, Chrysopogon fallax, Acacia pruinocarpa\Acacia\^Mallee Shrub\3\bc; G1^ Triodia epactia, Senna artemisioides subsp. Oligophylla\Trodia\^tussockgrass\2\l; G2 Hibiscus sturtii var. Platychlamys, Solanum lasiophyllum, Senna artemisioides subsp. Helmsii, Cleome viscose, Senna notabilis\other grasses\1\bi

C004

U1^ Acacia inaequilatera\Acacia\^Mallee Tree\5\bc; M1 Acacia pruinocarpa, Hakea Iorea subsp. Lorea, Acacia synchronicia, Grevillea wickhamii subsp. Hispidula\ Acacia\^low tree mallee\5\bc; M2 Acacia ancistrocarpa\Acacia\^tall shrub\4\bc; M3+^Triodia epactia, Chrysopogon fallax\Trodia\3\c; G1^ Senna

notabilis, Cenchrus ciliaris, Solanum lasiophyllum, Anthobolus leptomerioides, Euphorbia australis\Senna\^other grasses\1\bc

C005

U1^ Acacia inaequilatera\Acacia\^Mallee Tree\5\bc; M1 Acacia pachyacra, Hakea Iorea subsp. Lorea\Acacia\^Mallee Shrub\4\bc;M2^ Triodia schinzii\Trodia\^tussock grass\3\bc;G1+^ Triodia basedowii, Sida cardiophylla, Grevillea wickhamii subsp. Hispidula, Dicrastylis cordifolia, Triodia epactia\Trodia\2\c;G2 Corchorus elachocarpus, Bonamia rosea, Aristida holathera var. Holathera, Eragrostis eriopoda, Ptilotus astrolasius\Corchorus\^other grasses\1\bc

C006

U1^ Hakea chordophylla, Acacia sericophylla, Hakea lorea subsp. lorea\Hakea\^tree\6\bc; M1^ Acacia pachyacra\Acacia\Mallee Shrub\4\bi; M2 Triodia schinzii, Hibiscus sturtii var. Platychlamys, Petalostylis labicheoides, Acacia ancistrocarpa\Trodia\^tussock grass\3\l;G1^ Triodia basedowii\Trodia\^tussock grass\2\bc;G2 Dicrastylis cordifolia, *Bonamia rosea*, Scaevola parvifolia subsp. Parvifolia, Trianthema pilosa, Sida cardiophylla\Dicrastylis\^other grasses\1\bi

C007

U1+^ Acacia inaequilatera, Hakea lorea subsp. Lorea, Acacia citrinoviridis, Corymbia hamersleyana, Acacia pruinocarpa\Acacia\^Mallee Tree\6\bc;M1 Hakea lorea subsp. Lorea, Acacia ancistrocarpa, Acacia synchronicia, Acacia dictyophleba\Acacia\^tall shrub\4\bc; M2^ Chrysopogon fallax, Acacia dictyophleba, Eremophila longifolia, Gossypium austral, Eremophila forrestii subsp. Forrestii\Eremophila\^tall shrub\3\bc; G1 Triodia epactia, Hibiscus sturtii var. Platychlamys, Senna artemisioides subsp. Helmsii\Trodia\^tussock grass\2\c; G2^ Eragrostis eriopoda, Cenchrus ciliaris, Paraneurachne muelleri, Corchorus sidoides subsp. Sidoides, Indigofera monophylla\Eragrotis\^other grasses\1\bc

C008

U1^Corymbia hamersleyana, Acacia ?aneura, Hakea lorea subsp. Lorea, Solanum lasiophyllum\Corymbia\^tree\6\bc;M1^Acacia synchronicia, Acacia pruinocarpa, Acacia dictyophleba\Acacia\^Mallee Shrub\4\bc; M2 Eremophila longifolia, Chrysopogon fallax\Eremophula\^shrub\3\bi; G1^ Cenchrus ciliaris, Cenchrus setiger, Triodia epactia, Gossypium austral, Senna artemisioides subsp. Helmsii\Cenchrus\^other grasses\2\bi; G2 Senna notabilis, Sclerolaena cornishiana, Eremophila lanceolata, Enneapogon polyphyllus, Sida platycalyx\Senna\^other grasses\1\bi

C009

M1 Acacia ?aneura, Acacia ?synchronicia, Senna glutinosa subsp. Glutinosa\Acacia\^Mallee shrub\4\c; M2^ Vachellia farnesiana, Rhagodia eremaea\Vachellia\^Mallee Shrub\3\bc; G1+^ Cenchrus ciliaris, Cenchrus setiger, Eremophila longifolia, Ptilotus obovatus var. Obovatus\Cenchrus\^other grasses\2\bi;

G2 Salsola australis, Ipomoea muelleri, Boerhavia burbidgeana, Ptilotus macrocephalus, Cleome viscose\Salsola\^other grasses\1\bc

C010

U1^ Acacia ?synchronicia, Acacia ?aneura, Acacia pruinocarpa\Acacia\^Mallee tree\5\c; M1 ^Acacia citrinoviridis\Acacia\^Mallee tree\4\bi; M2 Eremophila longifolia, Chrysopogon fallax\Eremophila\tall shrub\3\bi; G1+^ Cenchrus ciliaris, Cenchrus setiger, Senna artemisioides subsp.

Oligophylla\Cenchrus\^shub\2\c; G2 Ipomoea muelleri, Boerhavia burbidgeana, Salsola australis, Sclerolaena cornishiana, Cleome viscose\Ipomoea\^other grasses\1\bi

C011

U1 Acacia pruinocarpa\Acacia\^mid Mallee tree\7\bc; U2+^ Acacia ?aneura, Corymbia hamersleyana, Acacia inaequilatera, Hakea lorea subsp. Lorea\Acacia\^low Mallee Tree\6\l; M1 Acacia citrinoviridis\Acacia\^tall Mallee Shrub\4\bi; M2^ Triodia epactia, Chrysopogon fallax, Senna notabilis\Trodia\^tussock grass\3\bi; G1^ Cenchrus ciliaris, Cenchrus setiger, Rhagodia eremaea, Acacia ?synchronicia\Cenchrus\^other grasses\2\l; G2 Solanum lasiophyllum, Boerhavia coccinea, Corchorus tridens, Unidentifiable sp.\Solanum\^other grasses\1\bi

C012

U1^ Acacia citrinoviridis, Hakea lorea subsp. Lorea, Acacia ?aneura, Acacia pruinocarpa,\Acacia\^low Mallee Tree\5\bi; M1 Acacia ?synchronicia, Acacia inaequilatera, Solanum lasiophyllum\Acacia\^tall shrub\5\bi; M2^ Chrysopogon fallax\Chrysopogon\^low shrub\3\bi; G1^ Cenchrus ciliaris, Cenchrus setiger, Rhagodia eremaea\Cenchrus\^other grasses\2\bc; G2 Senna artemisioides subsp. Oligophylla, Eremophila lanceolata, Ptilotus obovatus var. Obovatus, Sclerolaena cornishiana, Cleome viscose\Senna\^other grasses\1\bi

C013

U1^ Acacia ?aneura, Acacia citrinoviridis\Acacia\^Mid Mallee Tree\7\r;M1 Acacia ?synchronicia\mid shrub\4\bc; M2^ Chrysopogon fallax, Acacia pruinocarpa\Chrysopogon\^shrub\4\bi; G1+^ Cenchrus setiger, Cenchrus ciliaris\Cenchrus\^other grasses\2\c; G2 Abutilon lepidum, *Alysicarpus muelleri,* Senna notabilis, Corchorus tridens\Abutilon\^other grasses\1\bi

C014

U1^ Acacia dictyophleba, Hakea Iorea subsp. Lorea, Acacia sclerosperma subsp. Sclerosperma, Stylobasium spathulatum\Acacia\^low Mallee tree\4\bc; M1+^ Triodia schinzii, Triodia basedowii, Hibiscus leptocladus\Trodia\^tussock grass\3\r; G1^ Cenchrus ciliaris, Senna artemisioides subsp. Helmsii\Cenchrus\^other grass\2\bc; G2 Trianthema pilosa, Eragrostis eriopoda, *Bonamia rosea*, Ptilotus polystachyus, Sida cardiophylla\Trianthema\^other grass\1\bi

C015

U1 ^Acacia sclerosperma subsp. Sclerosperma, Corymbia hamersleyana, Atalaya hemiglauca\Acacia\^low Mallee tree\6\bc; M1 Acacia inaequilatera, Hakea lorea subsp. Lorea\Acacia\^tall Mallee shrubs\5\bi; M2+^ Triodia basedowii, Acacia ?synchronicia, Acacia dictyophleba, Acacia tetragonophylla\Trodia\^tussock grasses\3\l; G1 Cenchrus ciliaris, Ptilotus obovatus var. Obovatus, Stylobasium spathulatum\Cenchrus\^other grasses\2\l; G2^ Acacia pachyacra, Senna artemisioides subsp. Oligophylla, Sporobolus australasicus, Eragrostis eriopoda, Solanum lasiophyllum\Senna\^other grasses\1\bi

C016

U1^ Eulalia aurea, Hakea lorea subsp. Lorea\Eulalia\^low trees\6\bc; M1+^ Acacia ?synchronicia, Acacia sclerosperma subsp. Sclerosperma, *Enneapogon polyphyllus*\^tall shrub\5\l; M2 Cenchrus ciliaris, Acacia aneura, Cenchrus setiger\Cenchrus\^other grasses\2\bc; G1^ Salsola australis, Ptilotus obovatus var. Obovatus, Solanum lasiophyllum, *Pterocaulon sphaeranthoides*, Enneapogon polyphyllus\Salsola\^other grasses\1\bi

C017

U1^ Acacia ?aneura, Eucalyptus victrix\Acacia\^low Mallee tree\6\bc; M1+^ Acacia tetragonophylla, Acacia ?synchronicia\Acaia\^tall shrub\4\c; M2 Maireana pyramidata, Chrysopogon fallax\Maireana\^low shrub\3\bc; G1^ Atriplex amnicola, Cenchrus ciliaris, Cenchrus setiger, Rhagodia eremaea, Enchylaena tomentose\Atriplex\^other grasses\3\bc; G2 Eragrostis setifolia, Sclerolaena diacantha, Senna glutinosa subsp. Glutinosa, Panicum laevinode, Chloris pectinata\Ergrostis\^other grasses\1\bi

C018

M1^ Acacia ?synchronicia, Chrysopogon fallax\Acacia\mid Mallee shrub\3\bc;G1+^ Triodia basedowii, Cenchrus ciliaris, Stylobasium spathulatum, Solanum lasiophyllum, Ptilotus exaltatus var. Exaltatus\Trodia\^tussock grasses\2\c; G2 Corchorus sidoides subsp. Sidoides, Ptilotus astrolasius, Pluchea ferdinandi-muelleri, Aristida holathera var. Holathera, Hibiscus sturtii var. Platychlamys\Corchorus\^other grasses\1\bc

C019

U1^ Acacia dictyophleba, Acacia tumida var. Pilbarensis\Acacia\^low Mallee tree\5\bc; M1^ Hakea chordophylla, Acacia pachyacra, Acacia ancistrocarpa\Acacia\^mid Mallee shrub\4\bc; M2 Cymbopogon obtectus\Cymbopogon\^low shrub\3\bi; G1+^ Triodia basedowii, Ptilotus polystachyus, Sida cardiophylla\Trodia\^tussock grasses\2\l, G2 Bonamia rosea, Corchorus ?elachocarpus, Corchorus elachocarpus, Indigofera monophylla, Sida cardiophylla\Corchorus\^other grasses\1\bc

C020

U1^Acacia inaequilatera, Hakea lorea subsp. Lorea, Acacia pruinocarpa, Corymbia hamersleyana, Atalaya hemiglauca\Acacia\^low Mallee trees\6\bc; M1^ Acacia sclerosperma subsp. Sclerosperma, Vachellia farnesiana, Acacia dictyophleba, Acacia citrinoviridis, Acacia ?synchronicia\Acacia\tall shrub\4\bi; G1+^ Cenchrus setiger, Cenchrus ciliaris, Rhagodia eremaea, Capparis spinosa\Cenchrus\^other grasses\2\c

C021

U1^ Acacia citrinoviridis, Acacia synchronicia, Acacia inaequilatera, Acacia synchronicia, Corymbia hamersleyana\Acacia\^low Mallee trees\6\bc; M1^ Acacia ?aneura\Acacia\^low Mallee shrub\3\bi; G1+ ^ Cenchrus ciliaris, Cenchrus setiger, Rhagodia eremaea\Cenchrus\^other grasses\2\r; G2 Salsola australis\Salsola\^other grasses\1\bi

C022

U1^ Acacia ?aneura, Psydrax latifolia\Acacia\^low Mallee trees\6\I;M1 Acacia ?synchronicia, pruinocarpa\Acacia\^tall Mallee shrub\5\bc; M2^ Senna artemisioides subsp. Helmsii, Chrysopogon fallax\Senna\^low shrubs\3\bi; G1+^ Triodia epactia, Cenchrus ciliaris, Aristida inaequiglumis, Chloris pumilio, Eremophila forrestii ?subsp. forrestii\Trodia\^tussock grasses\2\bc; G2 Eragrostis setifolia, Chloris pectinata, Maireana planifolia, Eremophila glabra, Bidens bipinnata\Eragrotis\^other grasses\1\bc

C023

U1+^ Acacia ?aneura, Acacia xiphophylla, Psydrax latifolia, Acacia ?aneura, Acacia ?synchronicia\Acacia\folia Mallee trees\6\c; M1 Acacia ancistrocarpa\Acacia\folia Mallee shrub\4\bi;M2^ Eremophila latrobei subsp. Filiformis, Chrysopogon fallax, Senna glutinosa subsp. x luerssenii, Rhagodia eremaea\Eremophila\folia shrub\3\bi; G1^ Cenchrus ciliaris, Eremophila forrestii ?subsp. forrestii, Ptilotus obovatus var. Obovatus\Cenchrus\folia other grasses\2\bi; G2 Eriachne mucronata, Maireana planifolia, Eremophila glabra, Abutilon lepidum, Enteropogon ramosus\Eriachne\folia other grasses\1\bi

C024

U1^ Acacia ?aneura, Acacia ?synchronicia, Psydrax latifolia, Acacia tetragonophylla\Acacia\^low Mallee trees\6\c; M1^ Chrysopogon fallax, Senna artemisioides subsp. Oligophylla, Aristida latifolia\ Chrysopogon\^mid shrub\3\bi; G1+^ Ptilotus obovatus var. Obovatus, Cenchrus ciliaris, Rhagodia eremaea, Maireana planifolia\Ptilotus\^other grasses\2\bi; G2 Eriachne flaccid, Eragrostis setifolia, Salsola australis, Cleome viscose, Eremophila glabra\Eriachne\^other grasses\1\bc

C025

U1^ Corymbia sp, Acacia ?aneura, Acacia tetragonophylla, Psydrax latifolia\Acacia\^low Mallee tree\6\l; M1^ Chrysopogon fallax\Chrysopogon\^mid shrub\3\bc; G1+^ Cenchrus ciliaris, Ptilotus obovatus var. Obovatus, Rhagodia eremaea\Cenchrus\^other grasses\2\bc; G2 Malvastrum americanum, Corchorus tridens, Eriachne benthamii, Blumea tenella, Sporobolus australasicus\Malvastrum\^other grasses\1\bc

C026

U1^Corymbia hamersleyana, Vachellia farnesiana, Acacia ?aneura, Acacia dictyophleba, Ehretia saligna var. Saligna\Corymbia\^low trees\6\bc; M1^ Themeda triandra, Acacia ?synchronicia\Themeda\^medium shrubs\3\bc; G1+^ Cenchrus ciliaris, Triodia epactia, Atalaya hemiglauca, Triodia longiceps\Cenchrus\^other grasses\2\bc; G2 Malvastrum americanum, Corchorus tridens, Chloris pectinata, Salsola australis, Senna notabilis\Malvastrum\^other grasses\1\bi

C027

U1^ Acacia pruinocarpa, Acacia ?aneura, Hakea lorea subsp. Lorea\Acacia\^low Mallee trees\6\bc; M1 Acacia ?synchronicia, Atalaya hemiglauca\Acacia\^tall Mallee shrubs\4\bi; M2^ Acacia dictyophleba, Chrysopogon fallax\Acaia\^mid shrubs\3\bi; G1+^ Cenchrus ciliaris, Triodia epactia, Cenchrus setiger\ Cenchrus\^other grasses\2/r; G2 Acacia tetragonophylla, Acacia inaequilatera, Cleome viscose, Eragrostis eriopoda, Gomphrena affinis subsp. Pilbarensis\Acacia\^low Mallee shrub\1\bi

C028

U1^ Acacia ?aneura, Acacia pruinocarpa, Psydrax latifolia, Acacia ?synchronicia, Acacia tetragonophylla\Acacia\^low Mallee trees\6\bc; M1+^ Senna artemisioides subsp. Oligophylla, Chrysopogon fallax, Hakea lorea subsp. Lorea, Corymbia hamersleyana, Psydrax ?rigidula\Senna\^mid shrubs\3\bi; G1 Cenchrus ciliaris, Ptilotus obovatus var. Obovatus, Vachellia farnesiana\Cenchrus\^other grasses\2\bc; G2^ Eremophila glabra, Gomphrena affinis subsp. Pilbarensis, Enneapogon polyphyllus, Eragrostis setifolia, Portulaca pilosa\Eremophila\^other grasses\1\bi

C029

U1^ Acacia ?aneura, Acacia ?synchronicia\Acacia\^low Mallee trees\6\r; M1+^ Acacia tetragonophylla, Acacia ?aneura\Acacia\^tall Mallee shrubs\4\r; M2 Chrysopogon fallax\Chrysopogon\^mid shrub\3\bi; G1^ Cenchrus ciliaris\Cenchrus\^other grasses\2\bi; G2 Solanum lasiophyllum, Eremophila glabra, Cleome viscose, Eragrostis setifolia, Senna notabilis\Solanum\^other grasses\1\bi

C030

U1+^ Acacia ?aneura, Psydrax latifolia, Acacia ?synchronicia, Hakea lorea subsp. Lorea, Acacia tetragonophylla\Acacia\^low Mallee trees\6\1; M1^ Chrysopogon fallax, Senna artemisioides subsp.

Oligophylla, Senna artemisioides subsp. Helmsii\Chrysopogon\\low shrubs\3\bc; G1\\chi Cenchrus ciliaris\Cenchus\\\^other grasses\2\bi; G2 Corchorus tridens, Eremophila glabra, Eragrostis crateriformis, Eragrostis setifolia, Eriachne mucronata\Corchorus\\^Other grasses\1\bc

C031

U1^ Acacia ?aneura, Acacia pruinocarpa, Acacia ?synchronicia\Acacia\^low Mallee trees\6\bc; M1^ Senna artemisioides subsp. Oligophylla, Hakea lorea subsp. Lorea., Triodia epactia, Chrysopogon fallax\Senna\^low shrub\3\bc; G1+^ Cenchrus ciliaris, Senna artemisioides subsp. Helmsii, Cenchrus setiger\Cenchrus\^other grasses\2\bi; G2 Eremophila glabra, Maireana villosa, Gomphrena affinis subsp. Pilbarensis, Eragrostis setifolia, Sporobolus australasicus\Eremophila\^low grasses\1\bi

C032

U1^ Hakea lorea subsp. Lorea, Acacia pruinocarpa\Hakea\^low trees\6\bc; M1^ Vachellia farnesiana, Acacia ?synchronicia, Chrysopogon fallax\Vachellia\^mid shrubs\3\bi; G1+^ Cenchrus ciliaris, Triodia epactia\Cenchrus\^other grasses\1; G2 Salsola australis, Senna notabilis\Salsola\^other grasses\1\bi

C033

U1+^ Acacia ?aneura, Psydrax latifolia, Acacia tetragonophylla\Acacia\^low Mallee trees\6\I; M1^ Chrysopogon fallax, Acacia ?aneura\Chrysopogon\^low shrubs\3\bc; G1 Cenchrus ciliaris, Abutilon lepidum, Ptilotus obovatus var. Obovatus\Cenchrus\^other grasses\2\bc; G2^ Ipomoea muelleri,

Chloris pectinata, Enneapogon polyphyllus, Gomphrena affinis subsp. Pilbarensis, Senna notabilis, \lpomoea \^other grasses\1\bi

C034

U1^ Acacia ?aneura, Acacia pruinocarpa, Corymbia hamersleyana\Acacia\^mallee tree\6\I; M1+^ Acacia ?synchronicia, Psydrax latifolia\Acacia\^low Mallee trees\4\bi; M2 Triodia epactia, Acacia ancistrocarpa, Chrysopogon fallax\Trodie\^tussock grasses\4\bc; G1^ Cenchrus ciliaris, Eremophila forrestii, Senna artemisioides subsp. Helmsii, Eulalia aurea\Cenchrus\^other grasses\2\bi; G2 Eragrostis setifolia, Ptilotus obovatus var. Obovatus, Abutilon lepidum, Cleome viscose, Eremophila lanceolata\Eragrostis\^qrasses\1\bi

C035

U1^ Acacia ?synchronicia\Acacia\^Mallee Tree\6\bc; M1+^ Acacia ?synchronicia, Triodia epactia, Acacia ?aneura, Chrysopogon fallax\Acacia\^Mallee tree\3\bi; G1^ Solanum lasiophyllum, Aristida contorta, Eriachne pulchella subsp. Pulchella, Cleome viscose, Sporobolus australasicus\Solanum\^Other grasses\1\bi

C036

U1^ Acacia dictyophleba, Hakea lorea subsp. Lorea\Acacia\^mallee tree\5\bc; M1 Acacia sclerosperma subsp. Sclerosperma, Acacia pruinocarpa, Acacia pachyacra, Acacia ancistrocarpa, \Acacia\^mallee tree\4\bi; M2+^ Triodia epactia, Senna artemisioides subsp. Oligophylla, Chrysopogon fallax\3\c; G1^ Senna artemisioides subsp. Helmsii, Acacia ?aneura,\Senna\^grass\2\bi; G2 Indigofera monophylla, Senna notabilis, Sida platycalyx, Corchorus sidoides subsp. Sidoides, Dactyloctenium radulans\Indigofera\^grasses\1\bi

C037

M1 Acacia sclerosperma subsp. Sclerosperma, Acacia ?synchronicia, Acacia dictyophleba, Hakea lorea subsp. Lorea\Acacia\^Mallee tree\5\bc; M2 Acacia pruinocarpa\Acacia\^Mallee Tree\4\bi; M3+^ Triodia epactia, Cullen leucanthum\Trodia\^Tussic grass\3\l; G1 Senna artemisioides subsp. Oligophylla, Senna artemisioides subsp. Helmsii\Senna\^grass\2\bi; G2^ Solanum lasiophyllum, Hibiscus sturtii var. Platychlamys, Cenchrus ciliaris, Eragrostis eriopoda, Cleome viscose\Solanum\^grasses\1\bi

C038

U1^ Acacia ?aneura\Acacia\^Mallee tree\6\bc; M1 Acacia pruinocarpa, Hakea Iorea subsp. Lorea\Accacia\^mallee tree\4\bi; M2+^ Triodia epactia, Acacia ?synchronicia, Acacia pachyacra, Acacia inaequilatera, Acacia sclerosperma subsp. Sclerosperma\Trodia\^grasses\3\I; G1^ Corchorus sidoides subsp. Sidoides, Dactyloctenium radulans, Iseilema eremaeum, Sclerolaena cornishiana, Sporobolus australasicus\Corchorus\^grasses\1\bi

C039

U1^ Acacia inaequilatera, Grevillea wickhamii subsp. Hispidula, Hakea lorea subsp. Lorea\Acacia\^mallee tree\6\bc; M1^ Acacia ancistrocarpa, Acacia bivenosa\Acacia\^mallee tree\4\bc; M2+^ Triodia basedowii, Triodia epactia, Senna artemisioides subsp. Oligophylla, Cymbopogon obtectus\Trodia\^Tussock grass\3\bc; G1^ Paraneurachne muelleri, Solanum sturtianum, Cleome viscose, Eriachne aristidea, Solanum lasiophyllum\Paraneurachne\^grasses\1\bc

C040

U1^ Eucalyptus gamophylla\Eucalyptus\^trees\6\bc; M1+^ Triodia basedowii, Acacia inaequilatera, Acacia pachyacra, Grevillea wickhamii subsp. Hispidula, Eremophila longifolia\Trodia\^Tussock Grass\3\c; G1 Senna artemisioides subsp. Oligophylla\Senna\^grasses\2\bi; G2^ Paraneurachne muelleri, Hibiscus sturtii var. Platychlamys, Eragrostis eriopoda, Aristida holathera var. Holathera, Ptilotus astrolasius\Paraneurachne\gammagrasses\1\bc;

C041

U1^ Acacia inaequilatera, Corymbia hamersleyana, Acacia pachyacra, Hakea lorea subsp. Lorea\Acacia\^mallee tree\6\bc; M1+^ Triodia epactia, Acacia ?aneura, Grevillea wickhamii subsp. Hispidula, Acacia citrinoviridis, Gossypium robinsonii\Trodia\^grasses\3\bc; G1^ Senna artemisioides subsp. Oligophylla\Senna\^grasses\2\bi; G2 Aristida holathera var. Holathera, Cenchrus ciliaris, Cleome viscose, Aristida contorta, *Corchorus elachocarpus*\Aristida\^grasses\1\bc

C042

M1^ Grevillea wickhamii subsp. Hispidula, Petalostylis labicheoides, Hakea chordophylla\Grevillea\^shrub\4\bc; Ptilotus calostachyus, Acacia pachyacra\Ptilotus\^shrub\3\bc; G1 Triodia epactia, Triodia basedowii, Trianthema glossostigma\Trodia\^Tussoc grasses\2\bi; G2+^ Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Eragrostis eriopoda, Mollugo molluginea, Acacia adoxa var. Adoxa\Trodia\^Tussoc grass\1\l

C043

U1^ Acacia inaequilatera, Corymbia hamersleyana, Acacia pruinocarpa\Accacia\^Mallee Tree\6\bc; M1^ Acacia sclerosperma subsp. Sclerosperma, Acacia pachyacra\Acacia\^tussock grass\4\bc; M2 Triodia schinzi\Trodia\^Tussoc Grass\3\bc; G1+^ Triodia basedowii, Senna artemisioides subsp. Helmsii\Trodia\^Tussock grass\2\bc; G2 Senna artemisioides subsp. Oligophylla, Eragrostis eriopoda, Eriachne aristidea, Ptilotus obovatus var. Obovatus, Senna notabilis\Senna\^grasses\1\bi

C044

U1^ Acacia inaequilatera, Corymbia hamersleyana, Acacia inaequilatera\Acacia\Mallee tree\6\bc; M1^ Eucalyptus gamophylla, Hakea lorea subsp. Lorea, Acacia pachyacra\Eucalyptus\^tree\bc; M2 Triodia schinzii, Acacia sericophylla, Acacia sclerosperma subsp. Sclerosperma\Trodia\^tussock grass\3\bc; G1+^ Triodia basedowii, Scaevola spinescens\Trodia\^Tussock Grass\2\bc; G2 Corchorus elachocarpus, Dicrastylis cordifolia, Ptilotus astrolasius, Scaevola parvifolia subsp. Parvifolia\Corchorus\^low shrub\1\bi

C045

U1^Acacia inaequilatera, Hakea chordophylla, Corymbia hamersleyana\Acacia\^Mallee tree\6\bc; M1 Acacia pachyacra, Hakea lorea subsp. Lorea\Acacia\^Mallee tree\4\bc; M2^+Triodia schinzii, Hakea lorea subsp. Lorea\Trodia\3\l;G1^Senna artemisioides subsp. Helmsii\Senna\^shrub\2\bi; G2 Eragrostis eriopoda, Eriachne aristidea, *Corchorus elachocarpus*, Ptilotus polystachyus, Senna notabilis\Eragrostis\^grass\1;bi

C046

M1 Acacia pruinocarpa, Hakea Iorea subsp. Lorea, Acacia sclerosperma subsp. Sclerosperma\Acacia\^mallee tree\4\bi; M2^ Acacia ?aneura, Eremophila longifolia, Acacia citrinoviridis\Acaica\^mallee tree\3\bi; G1^+ Triodia epactia, Chrysopogon fallax, Tribulus suberosus, Trichodesma zeylanicum var. Zeylanicum\Trodia\^Tussock Grass\2\l; G2 Eremophila glabra, Dysphania rhadinostachya, Enneapogon polyphyllus, Eremophila lanceolata, Goodenia muelleriana\Eremophila\^shrub\1\bi

C047

U1^ Acacia ?aneura\Acacia\Mallee Tree\6\bc; M1^ Acacia dictyophleba, Acacia pruinocarpa, Hakea lorea subsp. Lorea, Eremophila forrestii ?subsp. forrestii\Acacia\^Mallee Tree\3\bi; G1^+ Triodia epactia, Chrysopogon fallax, Eremophila latrobei subsp. Filiformis\Trodia\^Tussock Grass\2\bc; G2 Eulalia aurea, Senna artemisioides subsp. oligophylla ? x helmsii, Cymbopogon obtectus, Salsola australis, Sida echinocarpa\Eulalia\^grass\1\bi;

C048

U1+^ Acacia aneura\Acacia\^Mallee Tree\6\c; M1^ Psydrax latifolia\Psydrax\^shrub/4/bc; M2 Chrysopogon fallax, Eremophila forrestii ?subsp. forrestii, Anthobolus leptomerioides\Chrysopogon\^grasses\3\bc; G1^ Aristida inaequiglumis, Ptilotus obovatus var. Obovatus, Senna artemisioides subsp. Helmsii, Cleome viscose, Eragrostis tenellula\ Aristida\^grasses\1\bi

C049

U1^ Melaleuca xerophila, Acacia tetragonophylla, Acacia xiphophylla\Melaleuca\^tree\5\bc; M1^ Melaleuca glomerata, Cleome viscose, Eremophila youngii subsp. Lepidota\3\bc; G1+^ Cenchrus ciliaris, Atriplex amnicola, Pluchea ferdinandi-muelleri, Rhagodia eremaea, Scaevola spinescens\ Cenchrus\^grass\2\r; G2 Sporobolus australasicus, Abutilon fraseri, Solanum lasiophyllum, Sclerolaena diacantha, Portulaca oleracea\Sporobolus\^grasses\1\bi

C050

U1^+ Melaleuca glomerata, Acacia tetragonophylla, Eremophila longifolia\Melaleuca\^tree\6\bc; M1^ Acacia xiphophylla\Acacia\Mallee Tree\5\bi; M2 Eremophila youngii subsp. Lepidota, Acacia ?synchronicia, Santalum lanceolatum\Eremophila\^shrub\3\bi; G1^ Rhagodia eremaea, Unidentifiable sp., Atriplex amnicola\Rhagodia\^shrub\2\bc;G2^ Corchorus tridens, Enchylaena tomentose, Sporobolus australasicus, Malvastrum americanum, Poaceae sp.\Corchorus\^shrub\1\bc

C051

U1^ Acacia aneura Melaleuca glomerata\Acaia\Mallee tree\6\bc; Acacia ?synchronicia, Acacia sclerosperma subsp. Sclerosperma, Eremophila youngii subsp. Lepidota, Acacia tetragonophylla, Melaleuca xerophila\Acaia\Mallee Tree\6\bc; M1^ Rhagodia eremaea\Rhagodia\^shrub\3\bi; G1^+ Cenchrus ciliaris, Atriplex amnicola, Senna artemisioides ?subsp. oligophylla x, Triodia epactia\ Cenchrus\^grass\2\I; G2 Maireana pyramidata, Sclerolaena sp., Cleome viscose, Sclerolaena diacantha, Atriplex codonocarpa\Maireana\^shrub\1\bi

C052

U1^+ Melaleuca xerophila, Acacia ?aneura, Acacia ?synchronicia, Grevillea striata, Acacia tetragonophylla\Maleluca\^tree\6\bc; M1^ Chrysopogon fallax, Scaevola spinescens, Eremophila longifolia\ Chrysopogon\^grasses\3\bi; G1 Cenchrus ciliaris, Cleome viscose, Sporobolus australasicus\Cenchrus\^grasses\2\bc; G2^ Corchorus tridens, Eriachne benthamii, Poaceae sp., Melaleuca lanceolata, Solanum lasiophyllum/Corchorus/^shrub/1\bi

C053

U1^+ Acacia ?aneura, Psydrax latifolia, Acacia tetragonophylla\Acacia\Mallee trees\6\bc; M1^ Acacia ?synchronicia\Acacia\^Mallee Tree\3\bi; G1^ Cenchrus ciliaris, Ptilotus obovatus var.

Obovatus\Cenchrus\^shrub\2\bi; G2 Abutilon lepidum, Bidens bipinnata, Blumea tenella, Chrysopogon fallax, Evolvulus alsinoides var. Villosicalyx\Abutilon\^shrub\1\bi

C054

U1^+Acacia ?aneura\Acaica\^mallee tree\6\bc; M1^ Acacia xiphophylla\Acaica\^mallee tree\3\bi; G1^ Salsola australis, Solanum lasiophyllum, Cleome viscose, Sclerolaena cornishiana, Goodenia muelleriana\Salsola\^shrub\1\bc

C055

U1^+Acacia ?aneura\Acacia\^Mallee Tree\6\I; M1^ Acacia ?synchronicia, Psydrax latifolia\Acacia\mallee tree\4\bi; G1^ Cenchrus ciliaris, Eragrostis setifolia, Sporobolus australasicus, Corchorus tridens, Abutilon lepidum\Cenchrus\^shrub\1\bi

C056

U1^+Acacia ?aneura, Acacia tetragonophylla, Acacia xiphophylla\Acacia\Mallee Tree\6\l; M1^Acacia ?synchronicia Acacia tetragonophylla, Psydrax latifolia Acacia xiphophylla\Acacia\Mallee Tree\4\bc; G1 Chrysopogon fallax, Cenchrus ciliaris\Chrysopogon\^grasses\2\bc; G2^ Eragrostis setifolia, Eriachne mucronata\Eragrostis\^grasses\1\bc

C057

U1^Eucalyptus victrix, Acacia ?aneura, Psydrax latifolia\Eucalyptus\^tree\6\bc; M1^ Vachellia farnesiana, Acacia tetragonophylla, Acacia ?synchronicia\Vachellia\^shrub\4\bc; M2 Eremophila longifolia\Eremophila\^shrub\3\bi; G1 Cenchrus ciliaris, Chrysopogon fallax\Cenchrus\^grasses\2\bc; G2^+ Eriachne benthamii, Corchorus tridens, Mimulus gracilis, Blumea tenella, Eragrostis tenellula\Eriachne\^grasses\1\bc

C058

M1^ Acacia ?synchronicia, Acacia ?aneura\Acacia\Mallee Tree\4\bc; M2 Vachellia farnesiana\Vachellia\^Shrubs\3\bi; G1^+ Cenchrus ciliaris, Atriplex amnicola\Cenchrus\^grasses\2\c; G2 Eragrostis setifolia, Sporobolus australasicus, Cleome viscose, Corchorus tridens, Sclerolaena ?deserticola\Eragrostis\^grasses\1\bc

C059

U1^ Acacia ?synchronicia, Acacia xiphophylla, Atriplex amnicola\Acacia\Mallee Tree\6\bi; G1 Cenchrus ciliaris\Cenchrus\^shrub\2\bi; G2^+ Sclerolaena cuneata, Salsola australis, Trianthema triquetra, Heliotropium heteranthum, Goodenia muelleriana\Sclerolaena\^shrub\bc

C060

U1^+ Acacia ?aneura, Acacia tetragonophylla, Psydrax latifolia, Eremophila longifolia\Acacia\^Mallee Tree\6\c; M1 Acacia ?synchronicia\Acacia\^Mallee Tree\4\bc; M2^ Chrysopogon fallax, Senna artemisioides subsp. Oligophylla, Vachellia farnesiana\Chrysopogon\^Shrub\3\bc; G1^ Cenchrus ciliaris, Cleome viscose\Cenchrus\^grasses\2\bc; G2 Blumea tenella, Corchorus tridens, Malvastrum americanum, Spermacoce brachystema, Ipomoea muelleri\Blumea\^grasses\bc

C061

U1^+ Acacia ?aneura\Acacia\^Mallee Tree\6\I; M1 Psydrax latifolia\Psydrax\^shrub\4\bi; M2^ Triodia epactia, Chrysopogon fallax, Eremophila forrestii ?subsp. forrestii, Senna artemisioides subsp. Oligophylla\Trodia\^Tussock Grasses\3\bc; G1^ Cenchrus ciliaris, Ptilotus obovatus var. Obovatus, Senna artemisioides subsp. helmsii\Cenchrus\^other grasses\2\bc; G2 Cleome viscose, Maireana planifolia, Bidens bipinnata, Cenchrus setiger, Enchylaena tomentose\Cleome\^other grasses\1\bi

C062

M1^ Acacia pruinocarpa, Acacia inaequilatera\Acacia\^Mallee Tree\4\bc; M1^ Chrysopogon fallax, Acacia pachyacra, Grevillea wickhamii subsp. Hispidula, Senna glutinosa subsp. Glutinosa\Chrysopogon\^other grasses\3\bi; G1^+ Triodia epactia, Cenchrus ciliaris, Acacia dictyophleba\Trodia\^Tussock Grass\2\l; G2

Gossypium austral, *Eragrostis eriopoda, Solanum lasiophyllum, Senna notabilis, Aristida holathera var. Holathera*\Gossypium\^Shrubs\1\bc

C063

U1^+Acacia ?aneura, Acacia pruinocarpa\Acacia\^Mallee Tree\5\bc; M1^ Chrysopogon fallax, Psydrax latifolia, Eremophila longifolia\Chrysopogon\^other grasses\3\bc; G1^ Triodia epactia, Eremophila forrestii ?subsp. forrestii, Senna artemisioides subsp. Oligophylla\Trodia\^Tussock Grass\2\bi; G2^ Eremophila lanceolata, Eragrostis cumingii, Nicotiana occidentalis subsp. Oblique, Bidens bipinnata, Enneapogon polyphyllus\Eremophila\^low shrub\1\^bi

C065

U1^ Acacia citrinoviridis, Hakea Iorea subsp. Lorea\Acacia\^Mallee Tree\6\bc; M1^ Acacia dictyophleb, Triodia epactia, Acacia pyrifolia var. ?morrisonii, Acacia sclerosperma subsp. Sclerosperma, Atalaya hemiglauca\Acacia\^Mallee Tree\3\bc; G1^+ Cenchrus ciliaris, Gossypium austral\Cenchrus\^other grasses\2\I; G2 Indigofera monophylla, Solanum Iasiophyllum, Phyllanthus maderaspatensis, Sporobolus australasicus, Euphorbia australis\Indigofera\^low shrub\1\bi

C066

M1^ +Acacia ?aneura, Triodia epactia\Acacia\^Mallee Tree\3\bi; G1^ Acacia ?synchronicia\Acacia\^Mallee Tree\2\bi; G2 Cleome viscose, Sclerolaena cornishiana, Dactyloctenium radulans, Enneapogon polyphyllus, Goodenia muelleriana\Cleome\^Shrubs\1\bi

C067

U1^+ Acacia ?aneura, Psydrax latifolia\Acacia\^Mallee Tree\6\c; M1^ Acacia ?synchronicia, Acacia inaequilatera, Acacia tetragonophylla, Eremophila longifolia\Acacia\^Mallee Tree\4\bi; M2 Chrysopogon fallax, Triodia epactia\Chrysopogon\^other grasses\3\bc; G1^ Poaceae sp. 1, Eragrostis cumingii, Perotis rara, *Nicotiana occidentalis* subsp. *Oblique, Pterocaulon sp.*\ Poaceae\^other grasses\1\bi

C068

U1^Acacia citrinoviridis, Acacia pruinocarpa, Acacia aptaneura\Acacia\^Mallee Tree\6\r, M1 Acacia ?synchronicia, Acacia ancistrocarpa, Acacia inaequilatera\Acacia\^Mallee Tree\4\bi; M2^ Chrysopogon fallax, Cullen leucanthum, Corchorus tridens, Acacia dictyophleba\Chrysopogon\^Other Grasses\3\bc; G1^+ Cenchrus ciliaris, Cenchrus setiger\Cenchrus\^other grasses\2\c; G2 Eulalia aurea, Cleome viscose, Sporobolus australasicus, Salsola australis, Senna artemisioides subsp. Oligophylla\Eulalia\^other grasses\1\bi

C069

U1^ Acacia aptaneura, Corymbia hamersleyana, Hakea lorea subsp. Lorea\Acacia\^Mallee Tree\6\bc; M1^ Acacia ?synchronicia, Acacia sclerosperma subsp. Sclerosperma, Atalaya

hemiglauca\Acacia\^Mallee Tree\4\bc; M2 Vachellia farnesiana\Vachellia\^shrub\3\bi; G1^+ Cenchrus ciliaris, Cenchrus setiger, Eulalia aurea\Cenchrus\^other grasses\2\l; G2 Corchorus tridens, Sclerolaena cornishiana, Aristida holathera, Senna artemisioides subsp. Oligophylla, Salsola australis\Corchorus\^other grasses\1\bi

C070

U1^Acacia aneura, Corymbia hamersleyana, Hakea lorea subsp. Lorea, Acacia citrinoviridis, Acacia pruinocarpa\Acacia\^Mallee Tree\6\bc; M1^ Acacia ?synchronicia, Atalaya hemiglauca\Acaica\^Mallee Tree\4\bc; M2 Chrysopogon fallax\Chrysopogon\^other grasses\3\bi; G1^+ Cenchrus ciliaris, Cenchrus setiger\Cenchrus\^other grasses\2\l; G2 Eulalia aurea, Cleome viscose, Rhagodia eremaea, Senna artemisioides subsp. Oligophylla, Sclerolaena cornishiana, Gomphrena affinis subsp. Pilbarensis\Eulalia\^other grasses\bi

C071

U1^+ Acacia ?aneura, Corymbia hamersleyana, Acacia aneura, Acacia pruinocarpa, Hakea lorea subsp. Lorea\Acacia\^Mallee Tree\6\I; M1 Acacia citrinoviridis\Acacia\^Mallee Tree\4\bi; M2^ Chrysopogon fallax, Acacia sclerosperma subsp. Sclerosperma, Gossypium robinsonii, Senna notabilis\Chrysioigin\^other grasses\3\bc; G1^ Cenchrus ciliaris, Cenchrus setiger, Acacia ?synchronicia\Cenchrus\^other grasses\G2 Abutilon lepidum, Ptilotus obovatus var. Obovatus, Eremophila lanceolata, Cleome viscose, Corchorus sidoides subsp. Sidoides\Abutilon\^low shrubs\1\bi

C072

M1^+ Triodia schinzii, Stylobasium spathulatum\Trodia\^Tussock Grass\3\C; G1 Cenchrus ciliaris\Cenchrus\^other grasses\2; G2^ Eriachne aristidea, *Eriachne aristidea*, Eragrostis eriopoda, Scaevola parvifolia subsp. Parvifolia, Sida sp.\Eriachne\^other grasses\1\bi

C073

U1^ Hakea lorea subsp. Lorea\Hakea\low tree\6\bc; M1^ Petalostylis cassioides, Stylobasium spathulatum, Sida cardiophylla, *Crotalaria cunninghamii*, Triodia schinzii\Petalostylis\^mid shrub\3\bc; G1^ Triodia basedowii, Ptilotus polystachyus, Aristida holathera var. Holathera\Trodia\^Tussock Grass\2\bi; G2 Cenchrus ciliaris, Indigofera monophylla, *Eriachne aristidea, Eriachne aristidea, Crotalaria cunninghamii*\Cenchrus\^other grasses\1\bi

C074

U1^ Acacia pachyacra, Stylobasium spathulatum, Acacia ?synchronicia\Acacia\^Mallee Tree\4\bc; M1^ Acacia sclerosperma subsp. Sclerosperma, Abutilon lepidum sensl.\Acacia\\^Mallee Tree\3\bc; G1^+Triodia basedowii, Aristida holathera var. Holathera, Cenchrus ciliaris\Trodia\^Tussock Grass\2\r;

G2 Corchorus ?elachocarpus, Acacia dictyophleba, *Hibiscus brachychlaenus*, Eragrostis eriopoda, Tribulus macrocarpus\Corchorus\^low shrubs\1\bc

C075

U1^ Acacia sclerosperma subsp. Sclerosperma, Acacia inaequilatera, Atalaya hemiglauca, Corymbia hamersleyana\Acacia\^Malleee Tree\6\r; M1 Acacia inaequilatera, Acacia ?synchronicia, Acacia ?aneura\Acacia\4\bc; M2 ^+ Triodia basedowii, Chrysopogon fallax, Stylobasium spathulatum, Acacia pachyacra\Trodia\^Tussock Grass\3\c; G1^ Cenchrus ciliaris, Ptilotus exaltatus var. Exaltatus, Senna artemisioides subsp. Oligophylla\Cenchrus\^Other grasses\2\bc; G2 Eragrostis eriopoda, Eriachne ?mucronata, Portulaca oleracea, Boerhavia coccinea, Dactyloctenium radulans\Eragrostis\^other grasses\1\bi

Appendix F

Species Recorded in the Nyidinghu Study
Area

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Appendix F1: Species Recorded in the Nyidinghu Study Area, 2011

* denotes introduced species

Family	Weed	Cons Code	Taxon
Acanthaceae			Dipteracanthus australasicus subsp. australasicus
			Rostellularia adscendens var. clementii
Aizoaceae			Trianthema glossostigma
			Trianthema pilosa Trianthema triquetra
Amaranthaceae	*		Aerva javanica
			Alternanthera denticulata
			Alternanthera nana
			Amaranthus cuspidifolius
			Amaranthus undulatus
			Gomphrena affinis subsp. pilbarensis
			Gomphrena cunninghamii
			Ptilotus aervoides
			Ptilotus astrolasius
			Ptilotus auriculifolius
			Ptilotus calostachyus
			Ptilotus exaltatus var. exaltatus
			Ptilotus fusiformis
			Ptilotus gaudichaudii var. gaudichaudii
			Ptilotus gomphrenoides
			Ptilotus helipteroides
			Ptilotus macrocephalus Ptilotus obovatus
			Ptilotus obovatus var. obovatus
			Ptilotus polystachyus
Apiaceae			Trachymene oleracea subsp. oleracea
Apocynaceae			Marsdenia australis
Apocyriaceae			Rhyncharrhena linearis
Asteraceae			Asteraceae sp.
	*		Bidens bipinnata
			Blumea tenella
			Brachyscome sp.
			Calotis multicaulis
		P1	Calotis plumulifera
			Calotis squamigera
			Centipeda minima Centipeda minima subsp. macrocephala
			Pluchea dunlopii
			Pluchea ferdinandi-muelleri
			Pluchea rubelliflora
			Pterocaulon serrulatum
			Pterocaulon sp.
			Pterocaulon sphacelatum
			Pterocaulon sphaeranthoides
			Streptoglossa bubakii
			Streptoglossa decurrens
			Streptoglossa odora
			Streptoglossa tenuiflora

Appendix F1: Species Recorded in the Nyidinghu Study Area, 2011

* denotes introduced species

Family	Weed	Cons	Taxon
		Code	
Boraginaceae			Ehretia saligna var. saligna
			Heliotropium chrysocarpum
			Heliotropium cunninghamii
			Heliotropium heteranthum
			Heliotropium inexplicitum
			Heliotropium ovalifolium
			Heliotropium tenuifolium
			Trichodesma zeylanicum var. zeylanicum
Brassicaceae			Lepidium pholidogynum
			Stenopetalum nutans
			Stenopetalum pedicellare
Campanulaceae			Wahlenbergia tumidifructa
Capparaceae			Capparis spinosa
			Capparis umbonata
			Cleome oxalidea
			Cleome viscosa
Caryophyllaceae			Polycarpaea corymbosa
			Polycarpaea holtzei
			Polycarpaea longiflora
			Polycarpaea longiflora (red form)
Chenopodiaceae			Atriplex amnicola
			Atriplex bunburyana
			Atriplex codonocarpa
			Atriplex sp.
			Dissocarpus paradoxus
			Dysphania kalpari
			Dysphania melanocarpa forma leucocarpa
			Dysphania rhadinostachya subsp. inflata
			Dysphania rhadinostachya subsp. rhadinostachya
			Dysphania sp.
			Enchylaena tomentosa var. tomentosa
			Eremophea spinosa
			Maireana planifolia
			Maireana planifolia x villosa
			Maireana pyramidata
			Maireana tomentosa subsp. tomentosa
			Maireana villosa
			Rhagodia eremaea Salsola australis
			Sclerolaena cornishiana
			Sclerolaena costata
			Sclerolaena cuneata
			Sclerolaena densiflora
			Sclerolaena deserticola
			Sclerolaena diacantha
			Sclerolaena sp.
			Sclerolaena tetragona

Appendix F1: Species Recorded in the Nyidinghu Study Area, 2011

* denotes introduced species

Family	Weed	Cons	Taxon
Chloanthaceae	Veca	Code	Bonamia erecta Bonamia rosea Bonamia sp. Bonamia sp. Dampier (A.A. Mitchell PRP 217) Convolvulus clementii Convolvulus sp. Dicrastylis cordifolia Duperreya commixta Evolvulus alsinoides var. villosicalyx Ipomoea coptica Ipomoea muelleri Ipomoea polymorpha Operculina aequisepala Polymeria aff. ambigua (PAN 26B-20)
0 . 17			Polymeria ambigua
Cucurbitaceae	*		Austrobryonia pilbarensis Citrullus colocynthis Cucumis maderaspatanus Cucumis melo subsp. agrestis
Cyperaceae		P3	Bulbostylis barbata Bulbostylis burbidgeae Bulbostylis turbinata Cyperus iria Fimbristylis dichotoma Fimbristylis simulans
Euphorbiaceae			Euphorbia aff. coghlanii Euphorbia alsiniflora Euphorbia australis Euphorbia australis (mid-green form) Euphorbia biconvexa Euphorbia boophthona (Large seed form) Euphorbia sp. Euphorbia tannensis subsp. eremophila (Hamersley form) Notoleptopus decaisnei Phyllanthus erwinii Phyllanthus maderaspatensis
Fabaceae			Acacia adoxa var. adoxa Acacia adsurgens Acacia aff. aneura (grey flat recurved tips; MET 15,828 Acacia aff. aneura (long, flat, recurved; FMR 35.3) Acacia aff. aneura (narrow fine veined; site 1259) Acacia ancistrocarpa Acacia aneura Acacia aneura var. ? aneura/intermedia Acacia aneura var. intermedia Acacia arida Acacia bivenosa Acacia citrinoviridis Acacia citrinoviridis (atypical) Acacia coriacea subsp. pendens

Family	Weed	Cons	Taxon
,		Code	Acacia dictyophleba
			Acacia dictyophileba Acacia elachantha (golden hairy form)
			Acacia hilliana
			Acacia inaequilatera
			Acacia ligulata
			Acacia maitlandii
			Acacia melleodora
			Acacia pachyacra
			Acacia pruinocarpa
			Acacia pyrifolia
			Acacia pyrifolia var. morrisonii
			Acacia pyrifolia var. pyrifolia
			Acacia sclerosperma
			Acacia sclerosperma subsp. sclerosperma
			Acacia sericophylla
			Acacia spondylophylla
			Acacia synchronicia
			Acacia tetragonophylla
			Acacia trudgeniana
			Acacia tumida var. pilbarensis
			Acacia victoriae
			Acacia xiphophylla
			Aeschynomene indica
			Alysicarpus muelleri
			Crotalaria cunninghamii
			Crotalaria medicaginea var. neglecta
			Cullen cinereum
			Cullen leucanthum
			Cullen leucochaites
			Glycine canescens
			Indigofera colutea
			Indigofera georgei
			Indigofera linifolia
			Indigofera monophylla (brown calyx form)
			Indigofera sp.
			Lotus cruentus
			Neptunia dimorphantha
			Petalostylis cassioides
			Petalostylis labicheoides
			Rhynchosia minima
			Senna artemisioides subsp. aff. oligophylla (thinly sericeous)
			Senna artemisioides subsp. artemisioides
			Senna artemisioides subsp. helmsii
			Senna artemisioides subsp. oligophylla
			Senna artemisioides subsp. oligophylla (sericea form)
			Senna artemisioides subsp. oligophylla x helmsii
			Senna glutinosa subsp. chatelainiana
			Senna glutinosa subsp. glutinosa
			Senna glutinosa subsp. pruinosa
			Senna glutinosa subsp. x luoresenii
			Senna glutinosa subsp. x luerssenii Senna notabilis
			Swainsona kingii
			Tephrosia aff. densa

Family	Weed	Cons	Taxon
,		Code	Tephrosia aff. supina
			Tephrosia att. supiria Tephrosia rosea var. clementii
			Tephrosia rosea var. glabrior
			Tephrosia sp.
			Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)
			Tephrosia supina
			Vachellia farnesiana
			Vigna sp. central (M.E. Trudgen 1626)
Goodeniaceae			Dampiera candicans
			Goodenia microptera
			Goodenia muelleriana
		P1	Goodenia nuda
			Goodenia prostrata
			Goodenia stobbsiana
			Goodenia vilmoriniae
			Scaevola parvifolia subsp. parvifolia
			Scaevola parvifolia subsp. pilbarae
			Scaevola spinescens (broad form)
			Scaevola spinescens (narrow form)
			Velleia connata
Gyrostemonaceae			Codonocarpus cotinifolius
Haloragaceae			Haloragis gossei var. gossei
Lauraceae			Cassytha capillaris
Loranthaceae			Amyema fitzgeraldii
			Amyema hilliana
Malvaceae			Abutilon dioicum
			Abutilon fraseri
			Abutilon lepidum
			Abutilon leucopetalum
			Abutilon macrum
			Abutilon malvifolium
			Abutilon otocarpum
		P3	Abutilon trudgenii
			Corchorus crozophorifolius
			Corchorus elachocarpus
			Corchorus lasiocarpus subsp. lasiocarpus
			Corchorus lasiocarpus subsp. parvus
			Corchorus sidoides subsp. sidoides
			Corchorus sp.
			Corchorus tectus
			Corchorus tridens
			Corchorus walcottii
			Gossypium australe (Burrup Peninsula form) Gossypium robinsonii
			Hibiscus aff. coatesii
			Hibiscus brachychlaenus
			Hibiscus burtonii
			Hibiscus sturtii var. platychlamys

Family	Weed	Cons Code	Taxon
	*	P3	Keraudrenia nephrosperma Malvastrum americanum Melhania oblongifolia Rulingia luteiflora Sida aff. echinocarpa (MET 15,350) Sida aff. fibulifera Sida aff. fibulifera (B64-13B) Sida arenicola Sida arsiniata Sida cardiophylla Sida fibulifera Sida platycalyx Sida sp. Sida sp. Pilbara (A.A. Mitchell PRP 1543) Sida sp. Pilbara (ferruginous form) Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90) Sida sp. verrucose glands (F.H. Mollemans 2423) Triumfetta leptacantha
Marsileaceae			Marsilea hirsuta
Molluginaceae			Mollugo molluginea
Myrtaceae			Calytrix carinata Corymbia hamersleyana Corymbia opaca Corymbia sp. Eucalyptus gamophylla Eucalyptus leucophloia subsp. leucophloia Eucalyptus victrix Melaleuca glomerata Melaleuca xerophila
Nyctaginaceae			Boerhavia burbidgeana Boerhavia coccinea Boerhavia repleta
Oleaceae			Jasminum didymum subsp. lineare
Pedaliaceae			Josephinia eugeniae
Phrymaceae			Mimulus gracilis
Phrymaceae			Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8
Plantaginaceae			Stemodia sp.
Poaceae			Amphipogon sericeus (Desert form) Aristida contorta Aristida holathera Aristida holathera var. holathera Aristida holathera var. latifolia Aristida hygrometrica

Family	Weed	Cons	Taxon
		Code	Aristida inaequiglumis
			Aristida latifolia
			Bothriochloa ewartiana
			Brachyachne prostrata
	*		Cenchrus ciliaris
	*		Cenchrus setiger
			Chloris pectinata
			Chloris sp.
	*		Chloris virgata
			Chrysopogon fallax
			Cymbopogon obtectus
			Cymbopogon sp.
			Dactyloctenium radulans
			Dichanthium sericeum subsp. humilius
			Digitaria ctenantha
	*		Echinochloa colona
			Enneapogon caerulescens var. caerulescens
			Enneapogon intermedius
			Enneapogon polyphyllus
			Enneapogon robustissimus
			Enteropogon ramosus
			Eragrostis crateriformis
			Eragrostis cumingii
			Eragrostis dielsii
			Eragrostis eriopoda
			Eragrostis exigua
			Eragrostis leptocarpa
			Eragrostis setifolia
			Eragrostis sp.
			Eragrostis tenellula
			Eragrostis xerophila (fine leaf form)
			Eragrostis xerophila (typical)
			Eriachne aristidea
			Eriachne benthamii
			Eriachne ciliata
			Eriachne gardneri Eriachne helmsii
			Eriachne mucronata (typical form) Eriachne obtusa
			Eriachne obtusa Eriachne pulchella subsp. dominii
			Eriachne pulchella subsp. dominii Eriachne pulchella subsp. pulchella
			Enachne pulchella subsp. pulchella Eulalia aurea
			Iseilema macratherum
			Iseilema membranaceum
			Panicum laevinode
			Paractaenum refractum
			Paraneurachne muelleri
			Paspalidium clementii
			Paspalidium rarum
			Perotis rara
			Poaceae sp.
	*		Setaria verticillata
			Sporobolus australasicus
			Themeda triandra

Family	Weed	Cons	Taxon
		Code	
Poaceae			Tragus australianus Triodia basedowii
			Triodia pasedowii
			Triodia longiceps
			Triodia pungens
			Triodia schinzii
			Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)
			Yakirra australiensis var. australiensis
Polygalaceae			Polygala isingii
			Polygala sp. Prostrate (P.K. Latz 4900)
Polygonaceae			Muehlenbeckia florulenta
Portulacaceae			Calandrinia quadrivalvis
Portulacaceae			Portulaca cyclophylla
			Portulaca oleracea
			Portulaca pilosa
Proteaceae			Grevillea sp.
			Grevillea striata
			Grevillea wickhamii subsp. hispidula
			Hakea chordophylla
			Hakea lorea subsp. lorea
Pteridaceae			Cheilanthes sieberi subsp. sieberi
Rubiaceae			Oldenlandia sp.
			Psydrax latifolia
			Psydrax rigidula
			Spermacoce brachystema
Santalaceae			Anthobolus leptomerioides
			Santalum lanceolatum
Sapindaceae			Atalaya hemiglauca
			Dodonaea coriacea
			Dodonaea petiolaris
Scrophulariaceae			Eremophila cuneifolia
			Eremophila forrestii
			Eremophila forrestii subsp. forrestii
			Eremophila forrestii x latrobei
			Eremophila glabra
			Eremophila jucunda subsp. pulcherrima
			Eremophila lanceolata
			Eremophila latrobei subsp. filiformis
			Eremophila latrobei subsp. latrobei
		D4	Eremophila longifolia
		P1	Eremophila spongiocarpa
		P4	Eremophila youngii subsp. lepidota
Solanaceae			Nicotiana occidentalis subsp. obliqua
			Nicotiana occidentalis subsp. occidentalis

Family	Weed	Cons Code	Taxon
Solanaceae			Nicotiana simulans Solanum centrale Solanum lasiophyllum Solanum phlomoides Solanum sturtianum
Surianaceae			Stylobasium spathulatum
Verbenaceae			Clerodendrum floribundum var. angustifolium
Violaceae			Hybanthus aurantiacus
Zygophyllaceae			Tribulus astrocarpus Tribulus hirsutus Tribulus macrocarpus Tribulus occidentalis Tribulus suberosus

Appendix G

Details of Conservation Significant Flora Identified in the Nyidinghu Study Area

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Calotis squamigera - P1

Calotis squamigera is a procumbent annual herb that grows up to 0.21 metres high and is commonly associated with pebbly loam soils. There are two records for Calotis squamigera at the WASH including a record on the north bank of the Fortescue Marsh (Christmas Creek tenement) approximately 30 kilometres north of the Study Area. The collection date for this record is 1 May 2011 which is why the desktop Survey did not identify this species. The other record of Calotis squamigera was from west of Karijini National Park approximately 150 kilometres east of the Study Area.

A single *Calotis squamigera* plant was recorded from one quadrat located in the centre of the Study Area within an area of Acacia woodland described as AaAsTp.

Eragrostis crateriformis - P3

Eragrostis crateriformis is an annual grass that grows 0.17-0.42 metres in height and flowers between January and July. Previous records of *Eragrostis crateriformis* have been associated with creek banks and depressions. This species has not been previously recorded in the locality of the Study Area. *Eragrostis crateriformis* is represented by nine records at the WASH.

Eragrostis crateriformis was recorded from two quadrats located in the centre and north of the Study Area within areas of Mulga communities . A flowering specimen was collected and was vouchered for the WAH.

Eremophila spongiocarpa-P1

Eremophila spongiocarpa is an intricate spreading shrub that grows 0.5-1 meter tall. The branches are rigid and can be spinescent. Leaves are fleshy (7-) 12-24 (-33) x 1.8-4 (-5) mm. Flowers are 1 per axil with a pedicel 3.5-6.5 mm. *Eremophila spongiocarpa* is known only from saline soils on the Fortescue Marsh where it occurs on subsaline red clay loams. There are currently 16 records of *Eremophila spongiocarpa* at the Western Australia State Herbarium.

Eremophila spongiocarpa populations were recorded at two quadrats in the northern portion of the Study Area. Both populations were recorded within the MxEy community. One population comprised of 2-5 plants and one population comprised of 6-10 plants.



Plate 1: Eremophila spongiocarpa Plate derived from Florabase (WAH 1998-) courtesy of A. Mitchell and S.J. Patrick

Eremophila youngii subsp. lepidota- P4

Eremophila youngii subsp. lepidota is a shrub that has persistent lucid scales on the branches and leaves. The sepals of the flower are imbricate towards the base and are 1.5-2.5 mm long. Flowers are red to pink in colour and flowering period is January-March/June-September. Eremophila youngii subsp. lepidota is restricted to the Carnarvon Botanical District but has some disjunct populations near Fortescue botanical District near Roy Hill, and in the Northern Territory near Mt Doreen Station. Eremophila youngii subsp. lepidota grows in low-lying areas that are subject to periodic flooding, on red-brown clay or sandy loams. They usually occur in Acacia woodland (mulga) and are associated with other species of Eremophila and Senna. There are currently 25 records of Eremophila youngii subsp. lepidota at the Western Australia State Herbarium.

G2



Plate 2: Eremophila youngii subsp. lepidota Plate derived from Florabase (WAH 1998-) courtesy of B. Buirchell and M.J Start

Goodenia nuda - P4

Goodenia nuda was recorded at five quadrats and was observed to be associated with clay loam soils under Mulga woodlands. Goodenia nuda was associated with Mulga communities in areas with high bare ground percentages on red brown clay loam soils. Two Goodenia nuda populations were recorded near well-used roads, thereby indicating that they are able to survive near infrastructure.



Plate 1 Photograph of Goodenia nuda (P4)



Plate 3: Goodenia nuda Plate derived from Florabase (WAH 1998-) courtesy of K.C. Richardson

Vigna sp. Central (M.E. Trudgen 1626) - P2

Vigna sp. Central was identified at one quadrat. Little is known about *Vigna* sp. Central's distribution or characteristics at this time. Vigna *sp. Central* is represented by six records at the WASH. No photograph was taken of this species and none are available on florabase.

Apppendix G: Details of Conservation Significant Flora Identified in the Nyidinghu Study Area

Cons Code	Confirmed Name	Zone	Datum	Easting	Northing	Notes
P1	Calotis squamigera	50	GDA	741264	7490817	not identified in desktop
P3	Eragrostis crateriformis	50	GDA	742220	7494650	not identified in desktop
P3	Eragrostis crateriformis	50	GDA	741608	7499365	not identified in desktop
P1	Eremophila spongiocarpa	50	GDA	743809	7514011	
P1	Eremophila spongiocarpa	50	GDA	743445	7513636	
P4	Eremophila youngii subsp. lepidota	50	GDA	743199	7513850	
P4	Eremophila youngii subsp. lepidota	50	GDA	743809	7514011	
P4	Eremophila youngii subsp. lepidota	50	GDA	743445	7513636	
P4	Eremophila youngii subsp. lepidota	50	GDA	744034	7513163	
P4	Eremophila youngii subsp. lepidota	50	GDA	744443	7513604	
P4	Eremophila youngii subsp. lepidota	50	GDA	744212	7513658	
P4	Eremophila youngii subsp. lepidota	50	GDA	743307	7513265	
P4	Eremophila youngii subsp. lepidota	50	GDA	743658	7512778	
P4	Goodenia nuda	50	GDA	743825	7501238	
P4	Goodenia nuda	50	GDA	745204	7494440	
P4	Goodenia nuda	50	GDA	745414	7496399	
P4	Goodenia nuda	50	GDA	743530	7506347	
P4	Goodenia nuda	50	GDA	744618	7492141	
P2	Vigna sp. Central (M.E. Trudgen 1626)	50	GDA	744212	7513658	not identified in desktop

Appendix H

Details of Introduced Species Recorded in the Nyidinghu Study Area

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*Aerva javanica - Kapok Bush

*Aerva javanica was introduced in Western Australia to assist in the revegetation of degraded rangelands (Hussey et al 1997). Since then it has become widespread across the state and is often associated with sandy soils along drainage lines. *Aerva javanica was recorded from 15 quadrats in the Project Area and associated with major creeklines (EvAhCc ± 50 plants), flowlines (ApAdCc ± 20 plants), and Mulga communities (AaPsCf and AaAsCc ± 20 plants).



Plate 1 Photograph of *Aerva javanica

*Bidens bipinnata- Bipinnate Beggartick

Bidens bipinnata was recorded from 24 quadrats in the Project Area. This species favours wet areas and is often spread by cattle (Hussey *et al* 1997). Bidens bipinnata was recorded in 24 quadrats all associated with Mulga communities and Chenopod shrublands in the northern corridor. There were approximately 100 plants in total in the Mulga communities (AaAsCc, AaAsEs, AaAsTp, AaAtCc, AaEfTp, and AaPsCf) and ± 5 plants in MgCc.



Plate 2 Photograph of *Bidens bipinnata

*Cenchrus ciliaris - Buffel grass

APPENDIX H - Details of Introduced Species Recorded in the Nyidinghu Study Area

*Cenchrus ciliaris was frequently observed as a dominant understorey species in the Project Area. *Cenchrus ciliaris is commonly planted as a pasture grass (Hussey et al 1997) that spreads rapidly as a result of vehicle and cattle movements. *Cenchrus ciliaris was recorded from 207 quadrats and was dominant in areas where water availability was higher such as major creeklines and flowlines. Total number of plants recorded is difficult to predict as numerous communities had over 50% of *Cenchrus ciliaris as groundcover.



Plate 3 Photograph of *Cenchrus ciliaris

*Cenchrus setiger- Birdwood grass

*Cenchrus setiger was introduced into Western Australia by farmers who used it as a fodder plant for cattle. It has since been recognised as a serious weed of watercourses from Carnarvon to the Kimberley (Hussey et al 1997).*Cenchrus setiger was recorded in 37 quadrats and, similarly to *Cenchrus ciliaris, was commonly associated with winter wet areas such as major creeklines and flowlines..



Plate 4 Photograph of *Cenchrus setiger

*Citrullus lanatus - Pie Melon

APPENDIX H - Details of Introduced Species Recorded in the Nyidinghu Study Area

*Citrullus lanatus is a trailing annual herb with yellow flowers. Flowering period is anytime throughout the year. *Citrullus lanatus is commonly located on plains, river banks, centres of dry lakes, drainage areas and disturbed areas. It was recorded in a heavily grazed area. *Citrullus lanatus was recorded from one quadrat in the Project Area which was in the AaAsEs community (approximately 10 plants).



Plate 5 Photograph of *Citrullus lanatus courtesy of R. Randall & J. Dodd (Western Australian Herbarium 1998)

*Echinochloa colona- Awnless barnyard grass

*Echinochloa colona is a widespread weed of creeks, swamps and irrigated crops in the Kimberley and Pilbara (Hussey et al 1997). *Echinochloa colona was recorded from 3 quadrats found in AaAtCc and MxEy communities in the northern corridor. Total number of plants was approximately 15 plants.



Plate 6 Photograph of *Echinochloa colona courtesy of S.M. Armstrong and J. English (Western Australian Herbarium 1998-)

*Malvastrum americanum is a weed of river and creek margins and many arid zone habitats from the Nullarbor to the Pilbara and Kimberley (Hussey et al 1997). *Malvastrum americanum was recorded from 34 quadrats from Mulga communities and major creeklines within the Project Area (AaAsCc,

^{*}Malvastrum americanum – Spiked Malvastrum

AaAsEs, AaAsTp, AaAtCc, AaPsCf, ApAdCc, EvAhCc, MgCc and MxEy). Total number of plants is approximately 50-100 plants.



Plate 7 Photograph of *Malvastrum americanum

*Portulaca oleracea - Purslane

*Portulaca oleracea is a prostrate succulent herb that is a common and widespread weed of horticulture, paddocks and gardens (DEC 2011). *Portulaca oleracea was recorded from 128 quadrats in a variety of communities including Mulga, major creeklines, and Triodia hummock grasslands. Total number of plants is likely to be above 1000 plants.



Plate 8 Photograph of *Portulaca oleracea

*Setaria verticillata – Whorled Pigeon Grass

*Setaria verticillata is a widespread weed of disturbed land, riverine edges and shrublands from the Kimberley and Pilbara south to Three Springs (Hussey et al 1997). *Setaria verticillata was recorded from two quadrats in the Project Area within *Triodia* hummock grassland community (CoAdTp ± 5 plants).



Plate 9 Photograph of *Setaria verticillata courtesy of Forest and Kim Starr (Global Compendium of Weeds 2007)

*Vachellia farnesiana – Mimosa bush

*Vachellia farnesiana is commonly recorded in low-lying areas, river and creek banks and disturbed sites (DEC 2011). *Vachellia farnesiana was recorded from 18 quadrats usually in Mulga communities or Chenopod communities on clay / clayloam soils. Total number of plants recorded is approximately 200 plants.



Plate 10 Photograph of *Vachellia farnesiana courtesy of J. English, S.D. Hopper and E. Wajon (DEC 2011)

Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
A043	*Aerva javanica	50	GDA	726221	7505439	726270	7505389
A052	*Aerva javanica	50	GDA	739620	7488242	739671	7488193
A055	*Aerva javanica	50	GDA	737981	7492719	738031	7492669
A068	*Aerva javanica	50	GDA	737484	7493933	737535	7493883
A081	*Aerva javanica	50	GDA	740072	7496303	740121	7496255
A082	*Aerva javanica	50	GDA	741192	7495783	741242	7495733
B014	*Aerva javanica	50	GDA	740697	7489768	740747	7489718
B017	*Aerva javanica	50	GDA	738933	7491204	738983	7491154
B019	*Aerva javanica	50	GDA	737677	7493039	737727	7492989
B028	*Aerva javanica	50	GDA	737551	7492797	737601	7492747
B032	*Aerva javanica	50	GDA	732496	7498545	732546	7498495
B036	*Aerva javanica	50	GDA	737689	7493373	737739	7493323
B041	*Aerva javanica	50	GDA	740147	7495798	740197	7495748
B044	*Aerva javanica	50	GDA	735183	7498033	735236	7497981
B092	*Aerva javanica	50	GDA	735319	7498573	735369	7498523
A038	*Bidens bipinnata	50	GDA	743436	7496493	743487	7496443
A074	*Bidens bipinnata	50	GDA	744549	7502323	744602	7502273
B102	*Bidens bipinnata	50	GDA	743872	7512166	743922	7512116
B103	*Bidens bipinnata	50	GDA	743880	7511599	743930	7511551
B104	*Bidens bipinnata	50	GDA	742998	7511789	743048	7511739
B105	*Bidens bipinnata	50	GDA	744367	7510208	744417	7510158
B108	*Bidens bipinnata	50	GDA	743287	7509413	743337	7509363
B116	*Bidens bipinnata	50	GDA	745702	7497783	745752	7497733
B122	*Bidens bipinnata	50	GDA	747983	7495913	748030	7495863
B124	*Bidens bipinnata	50	GDA	749671	7495429	749721	7495379
C022	*Bidens bipinnata	50	GDA	740994	7495233	741044	7495183
C023	*Bidens bipinnata	50	GDA	744382	7504439	744432	7504389
C025	*Bidens bipinnata	50	GDA	743530	7506347	743580	7506297
C030	*Bidens bipinnata	50	GDA	741608	7499365	741658	7499317
C033	*Bidens bipinnata	50	GDA	741565	7501252	741615	7501202
C034	*Bidens bipinnata	50	GDA	744618	7492141	744668	7492091
C048	*Bidens bipinnata	50	GDA	744306	7490890	744356	7490840
C050	*Bidens bipinnata	50	GDA	744212	7513658	744262	7513618
C053	*Bidens bipinnata	50	GDA	744186	7501867	744236	7501817
C057	*Bidens bipinnata	50	GDA	743667	7507419	743717	7507369
C060	*Bidens bipinnata	50	GDA	744423	7509503	744473	7509453
C061	*Bidens bipinnata	50	GDA	743898	7489150	743948	7489100
C063	*Bidens bipinnata	50	GDA	741264	7490817	741314	7490767
C067	*Bidens bipinnata	50	GDA	742220	7494650	742270	7494600
A002	*Cenchrus ciliaris	50	GDA	744287	7484901	744340	7484851
A003	*Cenchrus ciliaris	50	GDA	744069	7484937	744119	7484888
A005	*Cenchrus ciliaris	50	GDA	742340	7486290	742389	7486241
A013	*Cenchrus ciliaris	50	GDA	734388	7497071	734438	7497019
A014	*Cenchrus ciliaris	50	GDA	733489	7496757	733541	7496707
A015	*Cenchrus ciliaris	50	GDA	734068	7496420	734118	7496370
A016	*Cenchrus ciliaris	50	GDA	734164	7496744	734216	7496695
A017	*Cenchrus ciliaris	50	GDA	736852	7497675	736904	7497625
A030	*Cenchrus ciliaris	50	GDA	743216	7499001	743267	7498950
A031	*Cenchrus ciliaris	50	GDA	743493	7499286	743544	7499236
A032	*Cenchrus ciliaris	50	GDA	743411	7498091	743461	7498041
A033	*Cenchrus ciliaris	50	GDA	743345	7497366	743394	7497317
A036	*Cenchrus ciliaris	50	GDA	744114	7497403	744164	7497354
A037	*Cenchrus ciliaris	50	GDA	743248	7496834	743298	7496795
A038	*Cenchrus ciliaris	50	GDA	743436	7496493	743487	7496443
A039	*Cenchrus ciliaris	50	GDA	743885	7495952	743936	7495903
A042	*Cenchrus ciliaris	50	GDA	725995	7505508	726045	7505460

Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
A043	*Cenchrus ciliaris	50	GDA	726221	7505439	726270	7505389
A044	*Cenchrus ciliaris	50	GDA	744618	7486971	744669	7486923
A045	*Cenchrus ciliaris	50	GDA	743882	7486398	743931	7486348
A046	*Cenchrus ciliaris	50	GDA	743101	7486367	743150	7486318
A047	*Cenchrus ciliaris	50	GDA	740389	7486601	740439	7486550
A048	*Cenchrus ciliaris	50	GDA	740445	7485996	740495	7485947
A049	*Cenchrus ciliaris	50	GDA	740771	7485669	740823	7485619
A050	*Cenchrus ciliaris	50	GDA	742937	7489779	742988	7489730
A051	*Cenchrus ciliaris	50	GDA	740153	7488748	740203	7488699
A052	*Cenchrus ciliaris	50	GDA	739620	7488242	739671	7488193
A053	*Cenchrus ciliaris	50	GDA	739394	7488046	739443	7487994
A054	*Cenchrus ciliaris	50	GDA	740071	7490575	740121	7490527
A055	*Cenchrus ciliaris	50	GDA	737981	7492719	738031	7492669
A056	*Cenchrus ciliaris	50	GDA	739713	7491917	739765	7491866
A057	*Cenchrus ciliaris	50	GDA	747994	7483418	748045	7483368
A059	*Cenchrus ciliaris	50	GDA	726297	7504448	726347	7504400
A060	*Cenchrus ciliaris	50	GDA	725297	7504628	725347	7504579
A068	*Cenchrus ciliaris	50	GDA	737484	7493933	737535	7493883
A069	*Cenchrus ciliaris	50	GDA	739650	7493472	739700	7493422
A070	*Cenchrus ciliaris	50	GDA	743289	7484475	743339	7484417
A074	*Cenchrus ciliaris	50	GDA	744549	7502323	744602	7502273
A075	*Cenchrus ciliaris	50	GDA	743148	7501775	743199	7501726
A076	*Cenchrus ciliaris	50	GDA	743825	7501238	743875	7501185
A077	*Cenchrus ciliaris	50	GDA	742038	7500105	742089	7500056
A077	*Cenchrus ciliaris	50	GDA	742038	7500105	742089	7500056
A078	*Cenchrus ciliaris	50	GDA	740998	7499934	741048	7499885
A079	*Cenchrus ciliaris	50	GDA	738755	7497085	738808	7497035
A080	*Cenchrus ciliaris	50	GDA	739500	7496999	739550	7496950
A081	*Cenchrus ciliaris	50	GDA	740072	7496303	740121	7496255
A082	*Cenchrus ciliaris	50	GDA	741192	7495783	741242	7495733
A082	*Cenchrus ciliaris	50	GDA	741192	7495783	741242	7495733
B005	*Cenchrus ciliaris	50	GDA	744188	7485269	744238	7485219
B006	*Cenchrus ciliaris	50	GDA	744455	7486008	744507	7485958
B007	*Cenchrus ciliaris	50	GDA	744755	7486482	744798	7486430
B008	*Cenchrus ciliaris	50	GDA	742102	7487964	742152	7487914
B009	*Cenchrus ciliaris	50	GDA	742053	7488313	742103	7488263
B010	*Cenchrus ciliaris	50	GDA	742434	7488877	742484	7488827
B010	*Cenchrus ciliaris	50	GDA	742434	7488877	742484	7488827
B011	*Cenchrus ciliaris	50	GDA	741635	7486742	741684	7486692
B012	*Cenchrus ciliaris	50	GDA	741427	7488521	741477	7488471
B013	*Cenchrus ciliaris	50 50	GDA	741488	7488796	741538	7488746
B013	*Cenchrus ciliaris	50 50	GDA	741488	7488796	741538	7488746
B013	*Cenchrus ciliaris	50 50	GDA	740697	7489768	740747	7489718
B014 B015	*Cenchrus ciliaris	50 50	GDA GDA	742688	7491221 7491221	742738 742738	7491171 7491171
B015	*Cenchrus ciliaris *Cenchrus ciliaris	50	GDA	742688 742688	7491221	742738	7491171
B015	*Cenchrus ciliaris	50	GDA	742628	7491221	742738	7491171
B016	*Cenchrus ciliaris	50	GDA	738933	7491702	738983	7491652
B017	*Cenchrus ciliaris	50	GDA	738933	7491204	738983	7491154
B017	*Cenchrus ciliaris	50	GDA	738636	7491700	738686	7491154
B019	*Cenchrus ciliaris	50	GDA	737677	7491700	737727	7491030
B019	*Cenchrus ciliaris	50	GDA	735695	7493039	735744	7492969
B024	*Cenchrus ciliaris	50	GDA	743809	7514011	743859	7513961
B025	*Cenchrus ciliaris	50	GDA	743445	7513636	743495	7513586
B025	*Cenchrus ciliaris	50	GDA	744034	7513163	743493	7513366
B030	*Cenchrus ciliaris	50	GDA	736094	7494163	736141	7494115
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Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
B031	*Cenchrus ciliaris	50	GDA	735724	7494811	735773	7494761
B032	*Cenchrus ciliaris	50	GDA	732496	7498545	732546	7498495
B033	*Cenchrus ciliaris	50	GDA	731873	7498620	731923	7498570
B034	*Cenchrus ciliaris	50	GDA	742993	7487087	743044	7487037
B035	*Cenchrus ciliaris	50	GDA	742924	7487715	742974	7487665
B036	*Cenchrus ciliaris	50	GDA	737689	7493373	737739	7493323
B037	*Cenchrus ciliaris	50	GDA	737685	7494017	737735	7493967
B039	*Cenchrus ciliaris	50	GDA	738510	7494511	738564	7494461
B040	*Cenchrus ciliaris	50	GDA	739257	7494959	739307	7494909
B041	*Cenchrus ciliaris	50	GDA	740147	7495798	740197	7495748
B042	*Cenchrus ciliaris	50	GDA	738844	7496438	738894	7496388
B043	*Cenchrus ciliaris	50	GDA	737940	7496938	737989	7496888
B044	*Cenchrus ciliaris	50	GDA	735183	7498033	735236	7497981
B045	*Cenchrus ciliaris	50	GDA	734419	7499155	734469	7499105
B047	*Cenchrus ciliaris	50	GDA	730116	7500607	730166	7500557
B048	*Cenchrus ciliaris	50	GDA	731978	7500791	732028	7500741
B050	*Cenchrus ciliaris	50	GDA	727469	7503487	727519	7503435
B051	*Cenchrus ciliaris	50	GDA	727357	7503715	727407	7503665
B052	*Cenchrus ciliaris	50	GDA	726892	7504112	726942	7504062
B053	*Cenchrus ciliaris	50	GDA	725838	7504769	725888	7504719
B054	*Cenchrus ciliaris	50	GDA	726948	7505992	726998	7505942
B055	*Cenchrus ciliaris	50	GDA	725504	7507142	725554	7507092
B056	*Cenchrus ciliaris	50	GDA	725912	7507060	725962	7507010
B057	*Cenchrus ciliaris	50	GDA	726199	7506581	726249	7506531
B058	*Cenchrus ciliaris	50	GDA	725825	7505736	725875	7505686
B059	*Cenchrus ciliaris	50	GDA	727126	7504732	727176	7504682
B061	*Cenchrus ciliaris	50	GDA	738280	7485696	738263	7485674
B065	*Cenchrus ciliaris	50	GDA	741154	7485819	741200	7485799
B068	*Cenchrus ciliaris	50	GDA	742144	7485650	742194	7485600
B073	*Cenchrus ciliaris	50	GDA	738090	7486912	738040	7486901
B074	*Cenchrus ciliaris	50	GDA	739717	7486761	739767	7486711
B076	*Cenchrus ciliaris	50	GDA	738447	7487494	738499	7487446
B079	*Cenchrus ciliaris	50	GDA	744156	7483794	744206	7483744
B082	*Cenchrus ciliaris	50	GDA	743170	7494600	743220	7494550
B083	*Cenchrus ciliaris	50	GDA	731658	7500820	731708	7500770
B084	*Cenchrus ciliaris	50	GDA	730333	7500693	730383	7500643
B085	*Cenchrus ciliaris	50	GDA	736380	7494682	736430	7494632
B086 B087	*Cenchrus ciliaris	50 50	GDA GDA	734969 732574	7495336	735019	7495286
B088	*Cenchrus ciliaris *Cenchrus ciliaris	50	GDA	732574	7497871 7497941	732624 733300	7497821 7497891
B089	*Cenchrus ciliaris	50	GDA		7497941		
B099	*Cenchrus ciliaris	50	GDA	731511 731661	7499023	731561 731711	7498973 7499494
B090	*Cenchrus ciliaris	50	GDA	727274	7502833	727323	7502783
B091	*Cenchrus ciliaris	50	GDA	735319	7498573	735369	7498523
B092	*Cenchrus ciliaris	50	GDA	733319	7507433	733309	7507383
B094	*Cenchrus ciliaris	50	GDA	743086	7508360	743136	7508310
B095	*Cenchrus ciliaris	50	GDA	743060	7508751	743130	7508705
B096	*Cenchrus ciliaris	50	GDA	744048	7508384	744098	7508334
B097	*Cenchrus ciliaris	50	GDA	744493	7508926	744543	7508876
B099	*Cenchrus ciliaris	50	GDA	743397	7506785	743447	7506735
B101	*Cenchrus ciliaris	50	GDA	744497	7511706	744547	7511656
B102	*Cenchrus ciliaris	50	GDA	743872	7512166	743922	7512116
B103	*Cenchrus ciliaris	50	GDA	743880	7511599	743930	7511551
B104	*Cenchrus ciliaris	50	GDA	742998	7511789	743048	7511739
B105	*Cenchrus ciliaris	50	GDA	744367	7510208	744417	7510158
B106	*Cenchrus ciliaris	50	GDA	743767	7510178	743817	7510128
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Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
B107	*Cenchrus ciliaris	50	GDA	742892	7510252	742942	7510202
B108	*Cenchrus ciliaris	50	GDA	743287	7509413	743337	7509363
B109	*Cenchrus ciliaris	50	GDA	746276	7493956	746326	7493906
B110	*Cenchrus ciliaris	50	GDA	745204	7494440	745254	7494390
B112	*Cenchrus ciliaris	50	GDA	745256	7495360	745305	7495310
B113	*Cenchrus ciliaris	50	GDA	745414	7496399	745464	7496349
B114	*Cenchrus ciliaris	50	GDA	746401	7496702	746451	7496652
B115	*Cenchrus ciliaris	50	GDA	745078	7497175	745128	7497125
B117	*Cenchrus ciliaris	50	GDA	746277	7498443	746327	7498394
B119	*Cenchrus ciliaris	50	GDA	745000	7498964	745050	7498914
B120	*Cenchrus ciliaris	50	GDA	745005	7599429	745054	7599379
B121	*Cenchrus ciliaris	50	GDA	747149	7496217	747199	7496167
B122	*Cenchrus ciliaris	50	GDA	747983	7495913	748030	7495863
B124	*Cenchrus ciliaris	50	GDA	749671	7495429	749721	7495379
B125	*Cenchrus ciliaris	50	GDA	747213	7495548	747263	7495498
C002	*Cenchrus ciliaris	50	GDA	747502	7483773	747552	7483723
C004	*Cenchrus ciliaris	50	GDA	741743	7493340	741793	7493290
C007	*Cenchrus ciliaris	50	GDA	743816	7491532	743866	7491482
C008	*Cenchrus ciliaris	50	GDA	739069	7492515	739119	7492465
C009	*Cenchrus ciliaris	50	GDA	730248	7501774	730298	7501724
C010	*Cenchrus ciliaris	50	GDA	730231	7501343	730281	7501293
C011	*Cenchrus ciliaris	50	GDA	736757	7495163	736807	7495113
C012	*Cenchrus ciliaris	50	GDA	732636	7500171	732686	7500121
C013	*Cenchrus ciliaris	50	GDA	733450	7499499	733500	7499449
C014	*Cenchrus ciliaris	50	GDA	726793	7505838	726843	7505783
C015	*Cenchrus ciliaris	50	GDA	726643	7505754	726693	7505704
C016	*Cenchrus ciliaris	50	GDA	727331	7504430	727381	7504380
C017	*Cenchrus ciliaris	50	GDA	725016	7507093	725066	7507043
C018	*Cenchrus ciliaris	50	GDA	725064	7506361	725114	7506311
C020	*Cenchrus ciliaris	50	GDA	735964	7495655	736014	7495605
C021	*Cenchrus ciliaris	50	GDA	738081	7495140	738131	7495090
C022	*Cenchrus ciliaris	50	GDA	740994	7495233	741044	7495183
C023	*Cenchrus ciliaris	50	GDA	744382	7504439	744432	7504389
C024	*Cenchrus ciliaris	50	GDA	743034	7504737	743084	7504687
C025	*Cenchrus ciliaris	50	GDA	743530	7506347	743580	7506297
C026	*Cenchrus ciliaris	50	GDA	740661	7499619	740711	7499569
C027	*Cenchrus ciliaris	50	GDA	740084	7498038	740134	7497988
C028	*Cenchrus ciliaris	50	GDA	741633	7498367	741683	7498317
C029	*Cenchrus ciliaris	50	GDA	739413	7499967	739463	7499917
C030	*Cenchrus ciliaris	50	GDA	741608	7499365	741658	7499317
C031	*Cenchrus ciliaris	50	GDA	724003	7500377	724053	7500327
C032	*Cenchrus ciliaris	50	GDA	742383	7501007	742433	7500957
C033	*Cenchrus ciliaris	50	GDA	741565	7501252	741615	7501202
C034	*Cenchrus ciliaris	50	GDA	744618	7492141	744668	7492091
C036	*Cenchrus ciliaris	50	GDA	743466	7492449	743516	7492399
C037	*Cenchrus ciliaris	50	GDA	743051	7489754	743107	7489704
C038	*Cenchrus ciliaris	50	GDA	744120	7488277	744170	7488227
C041	*Cenchrus ciliaris	50	GDA	742921	7484818	742971	7484768
C043	*Cenchrus ciliaris	50	GDA	744627	7485091	744677	7485041
C044	*Cenchrus ciliaris	50	GDA	745177	7484898	745227	7484848
C046	*Cenchrus ciliaris	50	GDA	743536	7488750	743586	7488700
C047	*Cenchrus ciliaris	50	GDA	743700	7490133	743750	7490083
C049	*Cenchrus ciliaris	50	GDA	744443	7513604	744493	7513547
C050	*Cenchrus ciliaris	50	GDA	744212	7513658	744262	7513618
C051	*Cenchrus ciliaris	50	GDA	743307	7513265	743357	7513215
C052	*Cenchrus ciliaris	50	GDA	743658	7512778	743708	7512728

Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
C053	*Cenchrus ciliaris	50	GDA	744186	7501867	744236	7501817
C054	*Cenchrus ciliaris	50	GDA	743066	7502224	743116	7502174
C055	*Cenchrus ciliaris	50	GDA	743953	7503567	744003	7503517
C056	*Cenchrus ciliaris	50	GDA	743756	7505194	743806	7505144
C057	*Cenchrus ciliaris	50	GDA	743667	7507419	743717	7507369
C058	*Cenchrus ciliaris	50	GDA	743148	7508913	743198	7508863
C059	*Cenchrus ciliaris	50	GDA	743550	7509641	743600	7509591
C060	*Cenchrus ciliaris	50	GDA	743898	7489150	743948	7489100
C061	*Cenchrus ciliaris	50	GDA	743898	7489150	743948	7489100
C062	*Cenchrus ciliaris	50	GDA	741107	7490093	741157	7490043
C063	*Cenchrus ciliaris	50	GDA	741264	7490817	741314	7490767
C064	*Cenchrus ciliaris	50	GDA	742681	7493079	742731	7493029
C065	*Cenchrus ciliaris	50	GDA	743155	7492983	743176	7492974
C067	*Cenchrus ciliaris	50	GDA	731000	7500426	731050	7500376
C068	*Cenchrus ciliaris	50	GDA	731000	7500426	731050	7500376
C069	*Cenchrus ciliaris	50	GDA	731204	7501403	731254	7501353
C070	*Cenchrus ciliaris	50	GDA	730767	7501613	730817	7501563
C071	*Cenchrus ciliaris	50	GDA	729735	7502208	729785	7502158
C072	*Cenchrus ciliaris	50	GDA	725957	7506405	725990	7506350
C073	*Cenchrus ciliaris	50	GDA	725712	7506290	725752	7506234
C074	*Cenchrus ciliaris	50	GDA	725962	7506025	726007	7505974
C075	*Cenchrus ciliaris	50	GDA	726023	7506210	726074	7506160
B005	*Cenchrus setiger	50	GDA	744188	7485269	744238	7485219
B006	*Cenchrus setiger	50	GDA	744455	7486008	744507	7485958
B007	*Cenchrus setiger	50	GDA	744755	7486482	744798	7486430
B010	*Cenchrus setiger	50	GDA	742434	7488877	742484	7488827
B011	*Cenchrus setiger	50	GDA	741635	7486742	741684	7486692
B015	*Cenchrus setiger	50	GDA	742688	7491221	742738	7491171
B016	*Cenchrus setiger	50	GDA	742628	7491702	742678	7491652
B019	*Cenchrus setiger	50	GDA	737677	7493039	737727	7492989
B020	*Cenchrus setiger	50	GDA	735695	7498130	735744	7498080
B021	*Cenchrus setiger	50	GDA	734349	7497243	734399	7497193
B022	*Cenchrus setiger	50	GDA	734697	7496128	734747	7496078
B023	*Cenchrus setiger	50	GDA	731421	7500615	731471	7500565
B028	*Cenchrus setiger	50	GDA	737551	7492797	737601	7492747
B031	*Cenchrus setiger	50	GDA	735724	7494811	735773	7494761
B038	*Cenchrus setiger	50	GDA	738561	7493645	738610	7493595
B067	*Cenchrus setiger	50	GDA	741892	7485707	741942	7485657
B090	*Cenchrus setiger	50	GDA	731661	7499544	731711	7499494
C008	*Cenchrus setiger	50	GDA	739069	7492515	739119	7492465
C009	*Cenchrus setiger	50	GDA	730248	7501774	730298	7501724
C010	*Cenchrus setiger	50	GDA	730231	7501343	730281	7501293
C011	*Cenchrus setiger	50	GDA	736757	7495163	736807	7495113
C012	*Cenchrus setiger	50	GDA	732636	7500171	732686	7500121
C013	*Cenchrus setiger	50	GDA	733450	7499499	733500	7499449
C016	*Cenchrus setiger	50	GDA	727331	7504430	727381	7504380
C017	*Cenchrus setiger	50	GDA	725016	7507093	725066	7507043
C020	*Cenchrus setiger	50	GDA	735964	7495655	736014	7495605
C021	*Cenchrus setiger	50	GDA	738081	7495140	738131	7495090
C027	*Cenchrus setiger	50	GDA	740084	7498038	740134	7497988
C031	*Cenchrus setiger	50	GDA	724003	7500377	724053	7500327
C043	*Cenchrus setiger	50	GDA	744627	7485091	744677	7485041
C046	*Cenchrus setiger	50	GDA	743536	7488750	743586	7488700
C061	*Cenchrus setiger	50	GDA	743898	7489150	743948	7489100
C064	*Cenchrus setiger	50	GDA	742681	7493079	742731	7493029
C068	*Cenchrus setiger	50	GDA	731000	7500426	731050	7500376

Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
C069	*Cenchrus setiger	50	GDA	731204	7501403	731254	7501353
C070	*Cenchrus setiger	50	GDA	730767	7501613	730817	7501563
C071	*Cenchrus setiger	50	GDA	729735	7502208	729785	7502158
B100	*Citrullus lanatus	50	GDA	742824	7507179	742874	7507129
B025	*Echinochloa colona	50	GDA	743445	7513636	743495	7513586
B103	*Echinochloa colona	50	GDA	743880	7511599	743930	7511551
B108	*Echinochloa colona	50	GDA	743287	7509413	743337	7509363
A024	*Malvastrum americanum	50	GDA	743059	7503310	743109	7503260
A026	*Malvastrum americanum	50	GDA	743193	7505897	743244	7505846
A029	*Malvastrum americanum	50	GDA	744229	7498700	744278	7498652
A032	*Malvastrum americanum	50	GDA	743411	7498091	743461	7498041
A037	*Malvastrum americanum	50	GDA	743248	7496834	743298	7496795
A038	*Malvastrum americanum	50	GDA	743436	7496493	743487	7496443
A051	*Malvastrum americanum	50	GDA	740153	7488748	740203	7488699
A055	*Malvastrum americanum	50	GDA	737981	7492719	738031	7492669
A075	*Malvastrum americanum	50	GDA	743148	7501775	743199	7501726
A076	*Malvastrum americanum	50	GDA	743825	7501238	743875	7501185
B025	*Malvastrum americanum	50	GDA	743445	7513636	743495	7513586
B042	*Malvastrum americanum	50	GDA	738844	7496438	738894	7496388
B093	*Malvastrum americanum	50	GDA	724451	7507433	724501	7507383
B099	*Malvastrum americanum	50	GDA	743397	7506785	743447	7506735
B100	*Malvastrum americanum	50	GDA	742824	7507179	742874	7507129
B100	*Malvastrum americanum	50	GDA	742824	7507179	742874	7507129
B102	*Malvastrum americanum	50	GDA	743872	7512166	743922	7512116
B103	*Malvastrum americanum	50	GDA	743880	7511599	743930	7511551
B104	*Malvastrum americanum	50	GDA	742998	7511789	743048	7511739
B105	*Malvastrum americanum	50	GDA	744367	7510208	744417	7510158
B108	*Malvastrum americanum	50	GDA	743287	7509413	743337	7509363
B115	*Malvastrum americanum	50	GDA	745078	7497175	745128	7497125
B122	*Malvastrum americanum	50	GDA	747983	7495913	748030	7495863
B123	*Malvastrum americanum	50	GDA	748701	7495313	748751	7495263
C024	*Malvastrum americanum	50	GDA	743034	7504737	743084	7504687
C025 C026	*Malvastrum americanum	50	GDA GDA	743530	7506347	743580	7506297
	*Malvastrum americanum	50 50	GDA	740661	7499619	740711	7499569
C033	*Malvastrum americanum	50	GDA	741565 744618	7501252 7492141	741615 744668	7501202 7492091
C054	*Malvastrum americanum *Malvastrum americanum	50	GDA	744010	7513658	744262	7513618
C052	*Malvastrum americanum	50	GDA	743658	7512778	743708	7513018
C052	*Malvastrum americanum	50	GDA	743036	7501867	744236	7501817
C057	*Malvastrum americanum	50	GDA	743667	7507419	743717	7507369
C060	*Malvastrum americanum	50	GDA	744423	7509503	744473	7509453
A004	*Portulaca oleracea	50	GDA	743353	7485354	743402	7485304
A006	*Portulaca oleracea	50	GDA	744058	7486769	744107	7487620
A008	*Portulaca oleracea	50	GDA	739793	7485686	739843	7485637
A021	*Portulaca oleracea	50	GDA	742979	7512277	743029	7512228
A022	*Portulaca oleracea	50	GDA	743277	7500466	743327	7500417
A023	*Portulaca oleracea	50	GDA	743929	7500637	743979	7500587
A024	*Portulaca oleracea	50	GDA	743059	7503310	743109	7503260
A025	*Portulaca oleracea	50	GDA	743307	7504109	743357	7504058
A026	*Portulaca oleracea	50	GDA	743193	7505897	743244	7505846
A028	*Portulaca oleracea	50	GDA	744079	7499339	744130	7499289
A029	*Portulaca oleracea	50	GDA	744229	7498700	744278	7498652
A032	*Portulaca oleracea	50	GDA	743411	7498091	743461	7498041
A035	*Portulaca oleracea	50	GDA	744443	7496666	744493	7496616
A036	*Portulaca oleracea	50	GDA	744114	7497403	744164	7497354
A037	*Portulaca oleracea	50	GDA	743248	7496834	743298	7496795

Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
A038	*Portulaca oleracea	50	GDA	743436	7496493	743487	7496443
A039	*Portulaca oleracea	50	GDA	743885	7495952	743936	7495903
A040	*Portulaca oleracea	50	GDA	724073	7506290	724122	7506239
A041	*Portulaca oleracea	50	GDA	725231	7505844	725281	7505794
A042	*Portulaca oleracea	50	GDA	725995	7505508	726045	7505460
A043	*Portulaca oleracea	50	GDA	726221	7505439	726270	7505389
A044	*Portulaca oleracea	50	GDA	744618	7486971	744669	7486923
A049	*Portulaca oleracea	50	GDA	740771	7485669	740823	7485619
A052	*Portulaca oleracea	50	GDA	739620	7488242	739671	7488193
A054	*Portulaca oleracea	50	GDA	740071	7490575	740121	7490527
A069	*Portulaca oleracea	50	GDA	739650	7493472	739700	7493422
A070	*Portulaca oleracea	50	GDA	743289	7484475	743339	7484417
A073	*Portulaca oleracea	50	GDA	743612	7502613	743663	7502562
A074	*Portulaca oleracea	50	GDA	744549	7502323	744602	7502273
A075	*Portulaca oleracea	50	GDA	743148	7501775	743199	7501726
A076	*Portulaca oleracea	50	GDA	743825	7501238	743875	7501185
A078	*Portulaca oleracea	50	GDA	740998	7499934	741048	7499885
A079	*Portulaca oleracea	50	GDA	738755	7497085	738808	7497035
A082	*Portulaca oleracea	50	GDA	741192	7495783	741242	7495733
B004	*Portulaca oleracea	50	GDA	744675	7484565	744724	7484512
B007	*Portulaca oleracea	50	GDA	744755	7486482	744798	7486430
B008	*Portulaca oleracea	50	GDA	742102	7487964	742152	7487914
B009	*Portulaca oleracea	50	GDA	742053	7488313	742103	7488263
B010	*Portulaca oleracea	50	GDA	742434	7488877	742484	7488827
B012	*Portulaca oleracea	50	GDA	741427	7488521	741477	7488471
B013	*Portulaca oleracea	50	GDA	741488	7488796	741538	7488746
B014	*Portulaca oleracea	50	GDA	740697	7489768	740747	7489718
B015	*Portulaca oleracea	50	GDA	742688	7491221	742738	7491171
B018	*Portulaca oleracea	50	GDA	738636	7491700	738686	7491650
B024	*Portulaca oleracea	50	GDA	743809	7514011	743859	7513961
B026	*Portulaca oleracea	50	GDA	744034	7513163	744084	7513113
B026	*Portulaca oleracea	50	GDA	744034	7513163	744084	7513113
B027	*Portulaca oleracea	50	GDA	744563	7512459	744613	7512409
B027	*Portulaca oleracea	50	GDA	744563	7512459	744613	7512409
B035	*Portulaca oleracea	50	GDA	742924	7487715	742974	7487665
B035	*Portulaca oleracea	50	GDA	742924	7487715	742974	7487665
B038	*Portulaca oleracea	50	GDA	738561	7493645	738610	7493595
B039	*Portulaca oleracea	50	GDA	738510	7494511	738564	7494461
B044	*Portulaca oleracea	50	GDA	735183	7498033	735236	7497981
B045	*Portulaca oleracea	50	GDA	734419	7499155	734469	7499105
B051	*Portulaca oleracea	50	GDA	727357	7503715	727407	7503665
B051	*Portulaca oleracea	50	GDA	727357	7503715	727407	7503665
B052	*Portulaca oleracea	50	GDA	726892	7504112	726942	7504062
B052	*Portulaca oleracea	50	GDA	726892	7504112	726942	7504062
B055	*Portulaca oleracea	50	GDA	725504	7507142	725554	7507092
B056	*Portulaca oleracea	50	GDA	725912	7507060	725962	7507010
B058	*Portulaca oleracea	50	GDA	725825	7505736	725875	7505686
B059	*Portulaca oleracea	50	GDA	727126	7504732	727176	7504682
B059	*Portulaca oleracea	50	GDA	727126	7504732	727176	7504682
B060	*Portulaca oleracea	50	GDA	738669	7485539	738719	7485489
B070	*Portulaca oleracea	50	GDA	737621	7486471	737671	7486421
B071	*Portulaca oleracea	50	GDA	737722	7486506	737772	7486456
B072	*Portulaca oleracea	50	GDA	738206	7486730	738256	7486680
B094	*Portulaca oleracea	50	GDA	743086	7508360	743136	7508310
B097	*Portulaca oleracea	50	GDA	744493	7508926	744543	7508876
B099	*Portulaca oleracea	50	GDA	743397	7506785	743447	7506735

Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
B100	*Portulaca oleracea	50	GDA	742824	7507179	742874	7507129
B106	*Portulaca oleracea	50	GDA	743767	7510178	743817	7510128
B107	*Portulaca oleracea	50	GDA	742892	7510252	742942	7510202
B109	*Portulaca oleracea	50	GDA	746276	7493956	746326	7493906
B110	*Portulaca oleracea	50	GDA	745204	7494440	745254	7494390
B111	*Portulaca oleracea	50	GDA	746252	7495094	746301	7495044
B112	*Portulaca oleracea	50	GDA	745256	7495360	745305	7495310
B113	*Portulaca oleracea	50	GDA	745414	7496399	745464	7496349
B114	*Portulaca oleracea	50	GDA	746401	7496702	746451	7496652
B115	*Portulaca oleracea	50	GDA	745078	7497175	745128	7497125
B116	*Portulaca oleracea	50	GDA	745702	7497783	745752	7497733
B117	*Portulaca oleracea	50	GDA	746277	7498443	746327	7498394
B118	*Portulaca oleracea	50	GDA	746333	7498919	746383	7498869
B119	*Portulaca oleracea	50	GDA	745000	7498964	745050	7498914
B120	*Portulaca oleracea	50	GDA	745005	7599429	745054	7599379
B121	*Portulaca oleracea	50	GDA	747149	7496217	747199	7496167
B122	*Portulaca oleracea	50	GDA	747983	7495913	748030	7495863
B123	*Portulaca oleracea	50	GDA	748701	7495313	748751	7495263
B124	*Portulaca oleracea	50	GDA	749671	7495429	749721	7495379
B125	*Portulaca oleracea	50	GDA	747213	7495548	747263	7495498
C003	*Portulaca oleracea	50	GDA	741680	7492603	741730	7492553
C007	*Portulaca oleracea	50	GDA	743816	7491532	743866	7491482
C008	*Portulaca oleracea	50	GDA	739069	7492515	739119	7492465
C009	*Portulaca oleracea	50	GDA	730248	7501774	730298	7501724
C010	*Portulaca oleracea	50	GDA	730231	7501343	730281	7501293
C012	*Portulaca oleracea	50	GDA	732636	7500171	732686	7500121
C015	*Portulaca oleracea	50	GDA	726643	7505754	726693	7505704
C016	*Portulaca oleracea	50	GDA	727331	7504430	727381	7504380
C017	*Portulaca oleracea	50	GDA	725016	7507093	725066	7507043
C018	*Portulaca oleracea	50	GDA	725064	7506361	725114	7506311
C022	*Portulaca oleracea	50	GDA	740994	7495233	741044	7495183
C026	*Portulaca oleracea	50	GDA	740661	7499619	740711	7499569
C029	*Portulaca oleracea	50	GDA	739413	7499967	739463	7499917
C031	*Portulaca oleracea	50	GDA	724003	7500377	724053	7500327
C033	*Portulaca oleracea	50	GDA	741565	7501252	741615	7501202
C034	*Portulaca oleracea	50	GDA	744618	7492141	744668	7492091
C035	*Portulaca oleracea	50	GDA	744055	7492161	744105	7492111
C036	*Portulaca oleracea	50	GDA	743466	7492449	743516	7492399
C037	*Portulaca oleracea	50	GDA	743051	7489754	743107	7489704
C038	*Portulaca oleracea	50	GDA	744120	7488277	744170	7488227
C040	*Portulaca oleracea	50	GDA	746076	7485690	746126	7485640
C046	*Portulaca oleracea	50	GDA	743536	7488750	743586	7488700
C046	*Portulaca oleracea	50	GDA	743536	7488750	743586	7488700
C047	*Portulaca oleracea	50	GDA	743700	7490133	743750	7490083
C048	*Portulaca oleracea	50	GDA	744306	7490890	744356	7490840
C049	*Portulaca oleracea	50	GDA	744443	7513604	744493	7513547
C050	*Portulaca oleracea	50	GDA	744212	7513658	744262	7513618
C053	*Portulaca oleracea	50	GDA	744186	7501867	744236	7501817
C054	*Portulaca oleracea	50	GDA	743066	7502224	743116	7502174
C058	*Portulaca oleracea	50	GDA	743148	7508913	743198	7508863
C059	*Portulaca oleracea	50	GDA	743550	7509641	743600	7509591
C061	*Portulaca oleracea	50	GDA	743898	7489150	743948	7489100
C063	*Portulaca oleracea	50	GDA	741264	7490817	741314	7490767
C066	*Portulaca oleracea	50	GDA	744362	7494039	744412	7493989
C068	*Portulaca oleracea	50	GDA	731000	7500426	731050	7500376
C071	*Portulaca oleracea	50	GDA	729735	7502208	729785	7502158

Appendix H: Details of Introduced Species Recorded in the Nyidinghu Study Area

Plot	Species	Zone	Datum	NW Easting	NW Northing	SE Easting	SE Northing
C075	*Portulaca oleracea	50	GDA	726023	7506210	726074	7506160
C036	*Setaria verticillata	50	GDA	743466	7492449	743516	7492399
C041	*Setaria verticillata	50	GDA	742921	7484818	742971	7484768
A018	*Vachellia farnesiana	50	GDA	743199	7513850	743249	7513799
A042	*Vachellia farnesiana	50	GDA	725995	7505508	726045	7505460
A075	*Vachellia farnesiana	50	GDA	743148	7501775	743199	7501726
B025	*Vachellia farnesiana	50	GDA	743445	7513636	743495	7513586
B094	*Vachellia farnesiana	50	GDA	743086	7508360	743136	7508310
B096	*Vachellia farnesiana	50	GDA	744048	7508384	744098	7508334
B099	*Vachellia farnesiana	50	GDA	743397	7506785	743447	7506735
B100	*Vachellia farnesiana	50	GDA	742824	7507179	742874	7507129
B100	*Vachellia farnesiana	50	GDA	742824	7507179	742874	7507129
B108	*Vachellia farnesiana	50	GDA	743287	7509413	743337	7509363
C009	*Vachellia farnesiana	50	GDA	730248	7501774	730298	7501724
C020	*Vachellia farnesiana	50	GDA	735964	7495655	736014	7495605
C026	*Vachellia farnesiana	50	GDA	740661	7499619	740711	7499569
C028	*Vachellia farnesiana	50	GDA	741633	7498367	741683	7498317
C032	*Vachellia farnesiana	50	GDA	742383	7501007	742433	7500957
C057	*Vachellia farnesiana	50	GDA	743667	7507419	743717	7507369
C058	*Vachellia farnesiana	50	GDA	743148	7508913	743198	7508863
C060	*Vachellia farnesiana	50	GDA	744423	7509503	744473	7509453
C069	*Vachellia farnesiana	50	GDA	731204	7501403	731254	7501353

Appendix I

Numerical Analysis of Floristic Data from the Fortescue Metals Group Nyidinghu Project

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Numerical analysis

of floristic data from the

Fortescue Metals Group

Nyidinghu Project and Nyidinghu Rail areas with comparisons to data from the surrounding Pilbara Bioregion of Western Australia

Prepared for

Cardno (WA) Pty Ltd

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February 2012

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1.0 INTRODUCTION

This report presents the regional analysis of two related projects: Nyidinghu and Nyidinghu Rail (for simplicity, Nyidinghu project area). The analysis was conducted as one for both practical reasons and because it provides a consistent way to relate the analysis for the two projects. Both areas are located in the Pilbara Bioregion of the north-western part of Western Australia

1.1 Purpose of this report and data sources

The purpose of this report is to investigate the conservation value of the vegetation of areas of the Fortescue Metals Group Nyidinghu and Nyidinghu Rail project areas in the northwest of Western Australia as shown by the floristic composition of stands recorded using quadrats. To do this, the report presents the results of numerical analyses of the floristic data (lists of flora species present in the vegetation recording quadrats) recorded from the Nyidinghu project area, combined in a data set with similar floristic data from earlier studies. The data from the Nyidinghu project area was mainly collected by Cardno (WA) Pty Ltd., however there are some sites recorded in the area during earlier surveys.

The regional data set the Nyidinghu project area data is compared to in this report is from studies carried out by a number of consultancies for projects located in other parts of the Pilbara Bioregion. It forms a combined data set (see Table 3) that has two thousand eight hundred and eighty-three (2,883) sites, not including the Nyidinghu data. This data set was used in earlier reports (Griffin & Trudgen 2009a, b, c) and is used in this report as a reference data set and the classification of it using pattern analysis as a reference classification (this maintains continuity of units across these reports).

1.2 Adequacy of the regional data set

The regional data set has been compiled by one of us (MET) over a period of time. Over that time a significant effort has been made to include data that is of a better quality in terms of:

- Collected in better seasons:
- Collected by more experienced workers;
- Specimens identified or checked by one of us (MET);
- Apart from some earlier data from releves, the data is from 50 x 50 m quadrats or equivalent size of different shape (except in narrow habitats such as narrow creeklines

and gully floors, where a transect of 100 metres length has been found to be adequate in most cases).

Undoubtedly, there are limitations to the use of this data, in that it tends to be from surveys that are of a restricted area or from rail line routes rather than evenly spread through the Pilbara Bioregion. However, even spread is less important (provided there is adequate spread) than adequate sampling of different geologies, physical habitat types and climate variation. When the regional data set is examined in detail, it can be readily seen that it samples the vegetation of a very wide diversity of underlying geological types, geomorphological types (physical habitat types such as various slopes, crests, creeklines, gullies, gorges, mesa tops, "flats" i.e. small plains within ranges) and soil types, as well as significant variation in climate (including different rainfall areas but also including other factors).

The authors of this report have used the data in the regional data set in analyses for several reports (e.g. Griffin & Trudgen 2011, 2009a, b, c, for all of it and earlier reports for various parts of it). From this experience with the data, we believe that it provides a sufficient basis to investigate the floristic variation present in the vegetation of the Fortescue Metals Group Nyidinghu project area in relation to the vegetation of the Pilbara Bioregion that is adequate for environmental impact assessment purposes. The congruence below between the results from the pattern analyses and physiography supports this assessment.

1.3 Interpretation of the levels of classification provided

A classification of vegetation quadrat data into groups of sites with similar floristic composition (that is into groups of quadrats with similar lists of species in the quadrats placed together) was a fundamental part of the analyses being carried out. Some appreciation of the basis of the groups defined, and some caution are needed in interpreting these groups. They are not directly comparable to the more well known assignment of vegetation stands into plant communities based on structure and dominance, or the grouping of such plant communities into vegetation associations and then at a very high level vegetation formations. The different levels of floristic units defined by the pattern analyses carried out in this report are simply defined by their degree of similarity in the presence and absence of the species recorded at the sites placed in them (that is, on their floristics). This is a very different methodology to the emphasis on structure and dominance in the definition of plant communities, vegetation associations and vegetation formations (although the lower order

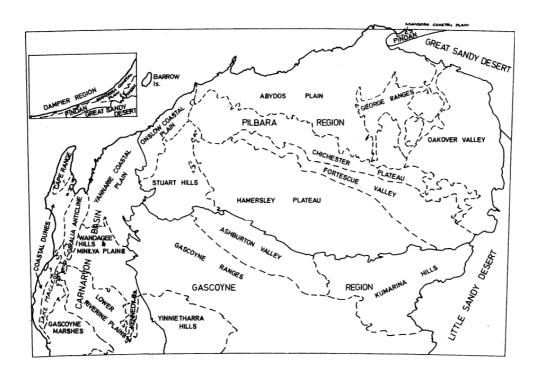
units in this classification take floristic into account). When more floristic groups are defined (from the same number of quadrats), the groups will have less variation in floristics and probably less variation in structure and dominance. If the data set is large and the number of units is large, this is a low level of synthesis. As the number of groups is decreased (from the same data set), the variation in floristic composition, structure and dominance will increase and the level of synthesis of the groups becomes higher. At a high level of synthesis (relatively few groups for the size of the data set), the variation in floristics of each group (as well as of the structure and dominance of the vegetation of the sites included) will be high and the groups will be quite abstract. This is meant to imply that they have varied composition, not that they do not possess some reality in the sense of dividing the data into different groups with some relationship within the groups defined and differences between groups. Where care needs to be taken, is that the groups defined at different levels of an analysis should be used for purposes appropriate to their level. Importantly, high synthesis level, relatively abstract groups should be used for understanding regional patterns of variation, while lower level groups with an appropriate level of synthesis should be used for conservation assessment.

In the analysis presented in this report, it was originally intended that the groups defined in the lower level (the 600-group level) of the classification of the data set used would vary from near (but above) the plant community concept in level of synthesis to near or above the vegetation association level in level of synthesis, although they are not directly comparable to these categories. However, examination of the vegetation descriptions of sites placed within groups at the 600-group level of the analysis shows that it is likely that most are in the upper part of this range to somewhat higher. Certainly, most have variation in structure and dominance that would be at or above the vegetation association level of synthesis. The plant community level groups together sites with similar structure, dominance and floristics, and the vegetation association level groups together similar plant communities. The 600-group level was chosen to be a somewhat similar level of synthesis to these concepts so that the groups defined would not be too abstract for environmental impact assessment purposes. However, it is emphasised that the groups defined are based on a different classification process (that is floristics only, not floristics, dominance and structure). The fact that the 600group level is somewhat higher in synthesis than originally intended reflects the significant variation in the vegetation of the Pilbara Bioregion and the fact that even 2,883 sites only samples part of that variation without very much repetition.

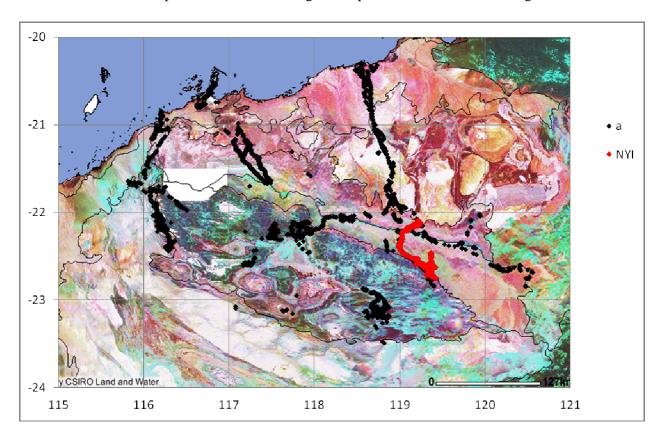
The intermediate levels of the analysis of the overall data set should be considered as varying from near, but above, the vegetation association level to the alliance level (or higher) in level of synthesis (so at least a significant proportion of the groups defined are largely abstract) and are potentially useful for regional comparisons. The higher levels vary from near sub-formation to the formation level in level of synthesis (so the higher level groups defined are quite abstract). Again, it is emphasised that the floristic units defined are not the same as such units (which are based on structure, dominance and floristics, or in the case of vegetation formation, only the structure of the upper layer), as they are only based on floristics. Although of a different type of synthesis to traditional classifications of vegetation, these units, as long as their nature is understood, are useful for the purpose of the analysis. The higher and intermediate levels are suitable for analysing regional distribution patterns and associations with factors such as geology or habitat (for example cracking clay or creek/river relationships).

1.4 Location of the Project area

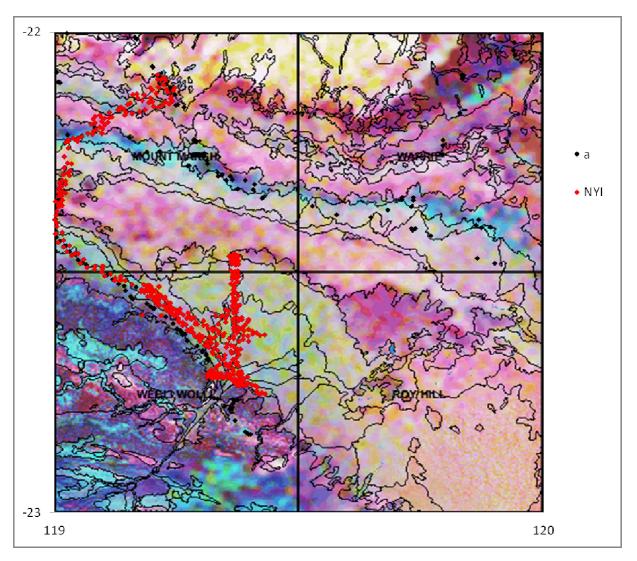
The Fortescue Metals Group Nyidinghu project area is located in the Pilbara Bioregion (Thackway, R., and Cresswell 1995) of the northwest of Western Australia (effectively equivalent to the Pilbara Natural Region (see Map 1 below) and Fortescue Botanical Districts of Beard (1975)). Within this area, the sites recorded for the Nyidinghu project occur in several of Beard's (1975) physiographic sub-areas. These are: in the edge of the Hamersley Range adjacent to the Fortescue Valley, in the Fortescue Valley and on the southern slopes and top of the Chichester Plateau. Within the Fortescue Valley, some of the sites come near the Fortescue Marsh, a large seasonally inundated wetland feature. The Fortescue Valley runs between the Chichester Plateau and Hamersley Range for several hundred kilometres (see Map 1 and Figure 1a and 1b).



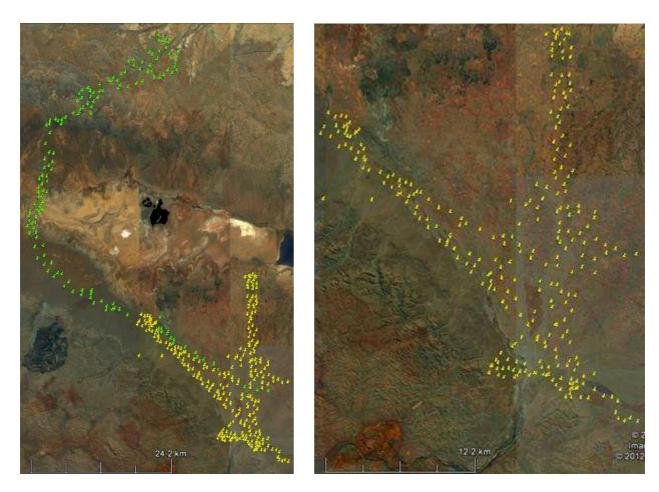
Map 1a. Natural Regions and physiographic units of the north west of Western Australia Note. From Beard 1975, p. 7. Beard's Pilbara Region is equivalent to the Pilbara Bioregion.



<u>Map 1b</u>. All sites on Physiographic regions and Gamma Radiometrics ternary image Notes. Radiometrics from ASRIS website. Nyidinghu project sites red, reference sites black.



Map 1c. All Nyidinghu sites on Land Systems mapping and Gamma Radiometrics ternary image Notes. Radiometrics from ASRIS website. Nyidinghu project sites red, reference sites black.



Map 1d. Nyidinghu project area sites on Google Earth images

Notes. Nyidinghu project area sites in yellow, Nyidinghu Rail line sites in green

1.5 Landscape and habitat types of the Nyidinghu project

The vegetation recording sites recorded for the Nyidinghu project area are mainly located in five significant physiographic or geomorphic features. These are the Chichester Plateau, Chichester Slopes, Fortescue Valley, Hamersley Colluvial Slopes and the Weeli Wolli Creek alluvial fan. A few sites are located on the lower to mid-slopes of the Hamersley Range Escarpment and a few on the edge of the Abydos Plain where it abuts the Chichester Plateau. These physiographic features will have a variety of habitats for plants:

 Slopes of the escarpment of the Hamersley Range, habitats will include various slopes (gentle to steep, different aspects) and minor creeklines (with very short lived flow after rain);

- The colluvium/alluvium belt extending from the lower edge of the escarpment of the Hamersley Range to about half way across the Fortescue Valley, habitats will include gently sloping areas, flat areas, minor creeklines;
- The alluvial fan of the Weeli Wolli Creek where it leaves the escarpment of the Hamersley Range and enters the Fortescue Valley. This large feature is one of two such features that occur in the Fortescue Valley, the other being the alluvial fan of the Fortescue River itself. However, while the alluvial fan of the Weeli Wolli Creek is built from material from the Hamersley Range, the alluvial fan of the Fortescue River is largely built from material from south of the Hamersley Range. Habitats on the delta of the Weeli Wolli Creek will include small to medium sized creeks and their minor floodplains, gentle (mostly northerly) slopes and low rises of alluvium and small claypans.
- The floor of the Fortescue Valley, consisting largely of alluvium deposited by the Fortescue River. This is a belt in the middle of the Fortescue Valley and will have flat areas and very gentle slopes. Soils are finer than in most of the other areas and water will be nearer the surface;
- The southern slopes of the Chichester Range (which form the north side of the Fortescue Valley). The project area traverses the "bajada" formed on these slopes by interlocking (compound) alluvial fans of the creeks flowing from the Chichester Plateau (this feature is discussed in Griffin and Trudgen 2011). Habitats include gentle to moderate southerly facing slopes and small to moderate sized creek lines, in the upper part steeper slopes;
- The surface of the Chichester Plateau (mainly basaltic), the project area forms a
 transect across this large and diverse feature, habitats will include slopes with various
 steepness and aspect and minor to medium sized creek lines, extensive areas of
 cracking clay habitat may be crossed;

• The very southern edge of the Abydos Plain (mainly granitic) appears to be in the northern end of the project area, this will have slopes of varying steepness (mainly gentle) and aspect and minor to medium sized creeks.

Obviously, within these physiographic areas, as well as between them, there will be significant variation in geology and soil types that will modify the simple physiographic concept of "habitat" used in the descriptions given here. Also obviously, the project area traverses a series of very different physiographic features and therefore a wide range of habitat types for vegetation.

The Land System mapping in Map 1c is provided only to illustrate one way to partition the land. Table 1 is a brief description of the land systems in which the Nyidinghu sites occur. As with the range of physiographic features sampled by the location of the sites, the nineteen land systems implies a wide range of habitat for vegetation. Note that there is a strong correlation between the land system boundaries and the radiometric data they are superimposed on. This gamma radiometrics image in Map 1c is a reflection of the minerals present in the surface of the soil (or rock where exposed) and therefore provides some indication of plant habitat as it will depend on soil type, depth and parent material.

Table 1: Brief descriptions of the Land Systems in the areas shown in Map 1c. Note. From Van Vreeswyk et al 2004.

Land	Description
System	
Capricorn	Rugged sandstone hills, ridges, stony footslopes and interfluves supporting low acacia shrublands or hard spinifex grasslands with scattered shrubs.
McKay	Hills, ridges, plateaux remnants and breakaways of meta sedimentary and sedimentary rocks supporting hard spinifex grasslands with acacias and occasional eucalypts.
Newman	Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands.
Rocklea	Basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex and occasionally soft spinifex grasslands with scattered shrubs.
Wona	Basalt upland gilgai plains supporting Roebourne Plains grass and Mitchell grass tussock grasslands, minor hard spinifex grasslands or annual grasslands/herbfields.
Macroy	Stony plains and occasional tor fields based on granite supporting hard and soft spinifex shrubby grasslands.
Adrian	Stony plains and low silcrete hills supporting hard spinifex grasslands.
Calcrete	Low calcrete platforms and plains supporting shrubby hard spinifex grasslands.

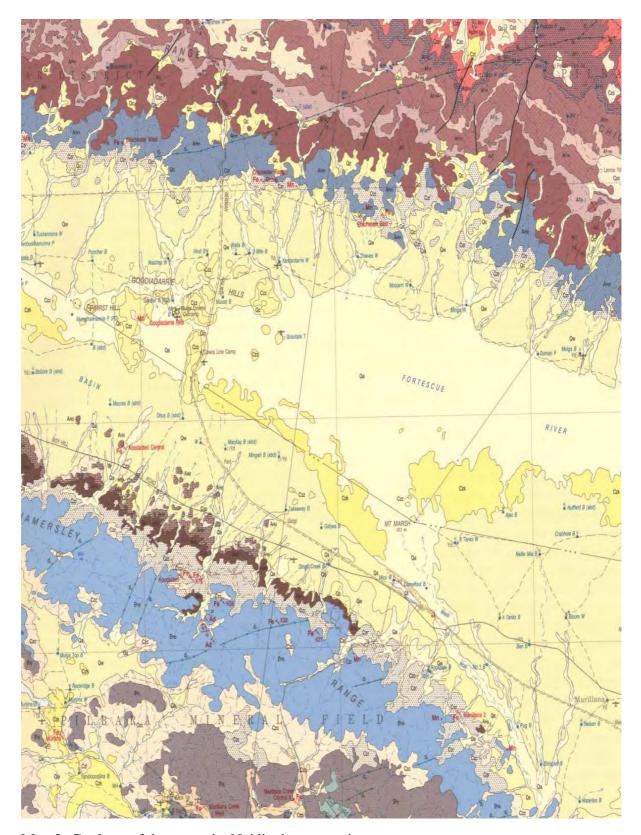
Christmas	Stony alluvial plains supporting snakewood and mulga shrublands with sparse tussock grasses.
Divide	Gently undulating sandplains with minor dunes, supporting hard spinifex hummock grasslands with numerous shrubs.
Fan	Washplains and gilgai plains supporting groved mulga tall shrublands and minor tussock grasslands.
Fortescue	Alluvial plains and flood plains supporting patchy grassy eucalypt and acacia woodlands and shrublands and tussock grasslands.
Jamindie	Stony hardpan plains and rises supporting groved mulga shrublands, occasionally with spinifex understorey.
Marsh	Lakebeds and flood plains subject to regular inundation, supporting samphire shrublands, salt water couch grasslands and chenopod shrublands.
River	Narrow, seasonally active flood plains and major river channels supporting moderately close, tall shrublands or woodlands of acacias and fringing communities of eucalypts sometimes with tussock grasses or spinifex.
Turee	Stony alluvial plains with gilgaied and non-gilgaied surfaces supporting tussock grasslands and grassy shrublands of mulga and snakewood.
Urandy	Stony plains, alluvial plains and drainage lines supporting shrubby soft spinifex grasslands.
Boolgeeda	Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands.
Newman	Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands.

1.6 Geological types in the Project area

The Nyidinghu vegetation data comes from fifteen geological types as mapped on the Roy Hill 1:250,000 geology sheet (Thorne and Tyler 1996), an extract from which is shown on Map 2, see below. Sampling this number of geological types infers that the vegetation data provided will have a significant diversity of units. Starting from the southern end of the survey area, there are sites on the following units:

- 1. **Unit Phb**, the Brockman Formation (light blue on the map) on the slopes of the Hamersley Escarpment;
- 2. **Unit Qs**, Eolian deposit sand; in sheets and longitudinal dunes (light yellow with large darker yellow dots) along the base of the Hamersley escarpment;
- 3. **Unit Qa**, Alluvium,- unconsolidated silt, sand, and gravel; in drainage channels and on adjacent floodplains (very pale yellow), in the bed of the Weeli Wolli Creek (the Fortescue Marsh is also mapped as this unit, but the bed of this feature will be significantly different to the bed of the Weeli Wolli Creek) and small occurrences on the Chichester Plateau;

- 4. Unit Qw, Alluvium and colluvium-red brown sandy and clayey soil; on low dunes and outwash areas (pale tan with darker tan dots), forming the alluvial fan of the Weeli Wolli Creek; along the base of the Hamersley Escarpment from the drainage of numerous minor creek; and forming the lower slopes of the Chichester Plateau on the north side of the Fortescue Valley (these three areas have different mixes of geology in the material deposited in them and therefore have different soils);
- 5. **Unit Czk**, Calcrete-sheet carbonate (dull mid-yellow on map), along the edge of the Fortescue Marsh
- 6. **Unit Czz**, Brecciated siliceous caprock over dolomitic rock; angular chert fragments in a chert matrix; overlies Wittenoom Formation
- 7. **Unit AHm**, the Marramamba Iron Formation: chert, banded iron formation, and pelite (mid-blue with diagonal lines), on the upper part of the southern slopes of the Chichester Plateau;
- 8. **Unit Qc**, Colluvium-unconsolidated quartz and rock fragments in soil; locally derived soil, and scree, and talus deposits (light yellow) on the upper slopes of the Chichester Escarpment;
- 9. **Unit AFj**, Jeerinah Formation: pelite, chert, and thin-bedded metasandstone (midbrown), on the crest of the southern side of the Chichester Plateau;
- 10. **Unit AFjo**, Woodiana member of the Jeerinah Formation: metamorphosed quartzitic sandstone, pelite, and chert (pale brown with close spaced dots), on the Chichester Plateau;
- 11. **Unit AFm**, Maddina Basalt: amygadaloidal metabasaltic flows and breccia (midbrown with double crosshatching), on the Chichester Plateau;
- 12. **Unit AFmk**, Kuruna Member of the Maddina Basalt (very pale brown with vertical lines), on the Chichester Plateau;
- 13. **Unit AFtc**, Meentheena member of the Tumbiana Formation; metamorphosed stromatolitic limestone and dolomite, pelite and volcanic sandstone (pale brown with blue block pattern), on the Chichester Plateau;
- 14. **Unit AFI**, Tumbiana Formation: metamorphosed mafic to intermediate volcanic sandstone and chert, local accretionary lapilli and stromatolites (light brown with heavy dot pattern), on the Chichester Plateau adjoining the edge of the Abydos Plain;
- 15. **Unit AgSm**, metamorphosed biotite monozogranite and minor granodiorite; weakly to strongly foliated, local metabasalt and metadolerite, intruded by a network of metamorphosed muscovite pegmatite veins (pink with red dot pattern), edge of the Abydos Plain.



Map 2. Geology of the areas the Nyidinghu vegetation survey traverses.

Notes: Extract from Thorne and Tyler (1996). Compare to map 1d above for location of the vegetation sites.

1.7 Data provided

The Nyidinghu data set has 430 quadrats recorded by Cardno WA Pty Ltd in 2011, a year with good rainfall so the data was recorded in good seasonal conditions. The identification of the specimens has been reviewed by one of us (MET) to standardise the application of names with the reference data set. The review of specimens resulted in a significant level of redetermination of the identifications. The data was provided in a standardised database format that readily allowed the data to be combined into a single database with the reference data being used in the analyses.

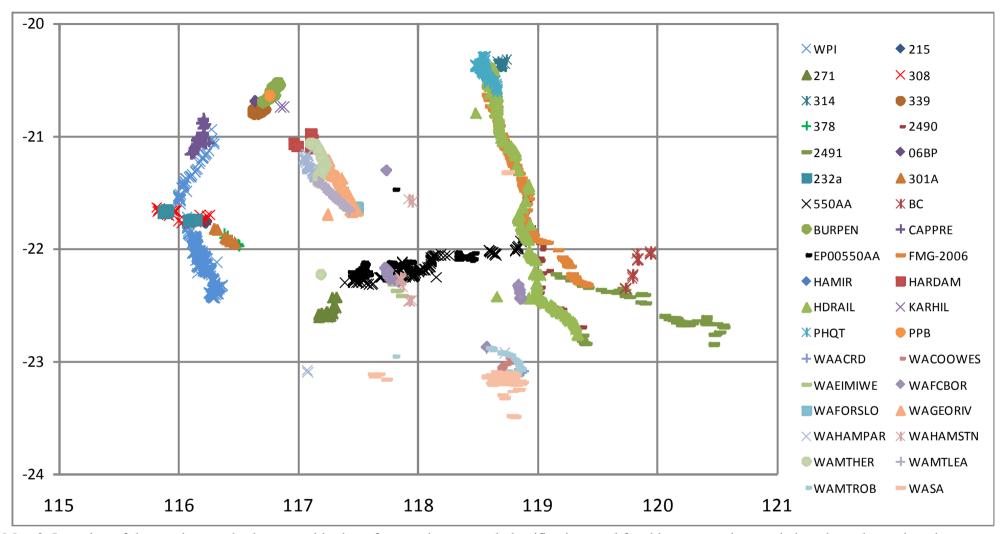
1.8 Reference data set and classification

To put the Nyidinghu data in context, it is compared to a reference data set and classification in this report. Although the new data is all from the eastern part of the Fortescue Valley and adjoining areas of the Chichester Plateau and slopes of the Hamersley Range, the reference data largely comes from a band across most of the Pilbara Bioregion. This was considered necessary because geological types represented in area the data is from have distributions that extend across larger parts of the bioregion and previous experience has shown that vegetation types in the Pilbara Bioregion can be strongly associated with geological types. The reference classification (set of floristic groups) is the same classification that has been used for earlier analyses carried out for Fortescue Metals Group projects (e.g. Griffin and Trudgen 2011, 2009a, b). This allows comparison to the floristic groups found in those project areas.

The reference data set used includes data that overlaps the distribution of the new data (particularly from the Biota Environmental Sciences report for the FMG Stage B Project and the Hope Downs Rail Project) and data from areas as far away as Port Hedland and the Western Pilbara. For example, it includes data from Cape Preston and from the area between Nullagine and Newman. The distribution of all the sites used is shown on Map 3 (see below). This map shows that the west to east spread of the sites used in the overall analysis is ca. five hundred and eighty (580) km and the north to south spread is ca. three hundred and fifty (350) km.

The projects from which the data is sourced are listed in Table 2, which also gives the number of sites for each project. Any reference to these data sets later in this report will be by means of the project code (see Table 2). All this data is part of a data set that is maintained by M.E. Trudgen.

As the vegetation of the Pilbara Bioregion is mostly distinct from the vegetation of adjoining bioregions, it was not considered necessary to make comparisons to vegetation occurring outside the bioregion to make an assessment of the conservation value of the vegetation of the Solomon Project and Investigator Project Area.



<u>Map 3</u>. Location of the quadrats and releves used in the reference data set and classification used for this report colour coded to show the project they were recorded for.

Note: Degrees of latitude and longitude on the axes. Abbreviations for projects given in Table 2.

<u>Table 2</u>. Projects data sourced from for the reference data set and used in the reference classification and classification with the Nyidinghu sites.

Notes. The column "sites" the number of sites used from each project in the Regional analyses.

Code	Project	Sites
06BP	Pluto Burrup Pipeline Survey 06	2
215	Flora and vegetation survey of the Mesa J Extension area	6
232a	Mesa A / Mesa G vegetation and flora surveys (Rio Tinto)	27
2490	FMG Stage A	45
2491	FMG Stage B	96
271	Flora and vegetation survey of the Brockman Syncline 4 project area	22
301A	Flora and vegetation survey of Bungaroo Trial Pit and Transport	7
	Corridor to Mesa J	
308	Flora and vegetation survey of the Mesa A transport corridor,	23
21.4	Warramboo deposit, and Yarraloola bore field and pipeline	24
314	Port Hedland Salt Expansion: Biological Survey	24
339	Vegetation flora survey of the Dampier salt expansion area	36
378	Flora and vegetation survey of the expanded Bungaroo Valley project area	9
550AA	EP00550AA - Flora and Vegetation Survey Solomon Rail Project	136
	Area, FMG	
BC	BC Iron Bonnie Creek Flora and Vegetation survey	14
BURPEN	Burrup Peninsula Floristic Survey	118
CAPPRE	Cape Preston Flora Survey	106
EP00550AA	ENVIPERT00550AA - Flora and Vegetation Survey, Solomon	268
	Project and Investigator, FMG	
FMG-2006	Fortescue Metals Group - Cloud Break to Pt Hedland	152
HAMIR	Burrup Peninsula Floristic Survey	3
HARDAM	Burrup Peninsula Floristic Survey	11
HDRAIL	Hope Downs rail alignment between Newman and Port Hedland	192
KARHIL	Burrup Peninsula Floristic Survey	3
PHQT	Sinclair Knight Merz Quantum Proj. Port Hedland	113
PPB	Pluto Burrup Pipeline Survey	10
WAACRD	West Angelas Access Road	13
WACOOWE	West Angelas Coondewanna West Route	57
S		
WAEIMIWE	West Angelas Eight Mile Well Route	8
WAFCBOR	West Angelas Four Corners Bore Route	41
WAFORSL	West Angelas Fortescue Valley, slopes at east end Mt Leal route	18
O		
WAGEORIV	West Angelas George River Route	242
WAHAMPA	West Angelas Hamersley Parallel Route	71
R		
WAHAMST	West Angelas Hamersley Station	21
N		
WAMTHER	West Angelas Mt Herbert Route	109
WAMTLEA	West Angelas Mt Leal Route	111
WAMTROB	West Angelas Mt Robinson Route	73
WASA	West Angelas Core Survey Area	271
API [WPI]	API West Pilbara Iron Ore project [WPI]	427

2.0 METHODS

2.1 Data preparation

The data from the Nyidinghu Project Area and the data from the earlier projects was imported into a Microsoft Access database. The "queries" (short programs written using Microsoft Access) used to carry out the analyses were also incorporated into this database.

To make the data set as compatible as possible across the various projects used in the analyses, a process of reconciliation of flora species names as used in the different projects was undertaken (Appendix 1). This was necessary partly because of changes in nomenclature over the period in which the studies have been carried out, but also because of the potential of project specific variations in the application of names. The reconciliation involved:

- Reducing some infra-specific names to the relevant species name (where misidentifications were likely, or where in some projects specimens had been named to species only),
- Combining some taxa where confusion is likely to have occurred in field observations and identifications, and
- Omitting some records that were ambiguous.

It should be noted that the data maintained by M.E. Trudgen is dynamic and (as much as time allows) is updated as the understanding of the application of existing and new names develops. However, there are some differences in names between the data sets analysed for earlier studies and the current one that reflect changes in nomenclature rather than in identification and the reconciliation process compensates for this.

2.2 Analyses carried out

Two datasets were analysed: NYI (all Nyidinghu) and NYIR (all Nyidinghu and the regional sites). As is common for such analyses, the presence and absence of species at a quadrat was used and cover (a measure of the abundance of species at a site) was not used. Analysing the presence and absence of species in such data sets has been found to be appropriate for assessing the regional variation in composition of site data in earlier analyses of data from the Pilbara Bioregion. Including the cover of species at sites tends to be more useful when analysing data sets from smaller areas with higher data density. For these reasons, cover was not used in the analyses carried out for this report. "Singletons" (species present in only one

site in a data set) were retained, for they often contain useful information to distinguish uncommon floristic types.

2.2.1 Use of the PATN numerical classification package

We have found that the numerical classification package PATN (Belbin 1987) is an effective tool for the analysis of data sets such as those analysed in this report. We have used it on such data sets from the Pilbara and from the south-west of Western Australia over a significant period of time. Our experience is that the resulting sorting (classification) of data sets has been meaningful in providing an ability to understand the variation in the data sets analysed and in making assessments of the importance of such variation.

Several modules of the numerical classification package PATN (Belbin 1987) were used for the analyses. The PATN modules used were ASO (calculation of similarity matrix), FUSE (classification), DEND (representation of classification) and NNB (nearest neighbour analysis). The default parameter settings of these modules were used in all analyses.

For the analysis of the data set, the modules were run with the sites as the classified objects (ie the species as the attributes). Classification of the data set with the species as the classified objects (ie the sites as the attributes) was also undertaken for both data sets. From the ASO association matrix, it is possible to determine for each site, which other sites are most similar and how similar they are. This can be used in a number of ways including determining the nearest neighbours for sites and an indication of the homogeneity of the groups. By combining these with the classification a measure of concordance can be determined.

The dendrogram represents the way the classified rows (sites or species) fuse. This can be used to construct groups of sites (groups of rows in the dendrogram) by "cutting" at a particular value or cutting to obtain a particular number of groups. For the purpose of the local data set, four "cuts" were made to divide (classify) the data into groups at different levels of synthesis (from very broad to moderate). For ease of reference, these "cuts" are referred to as for example the "5-group", "10-group", "20-group", and "40-group" classifications. While the levels of these "cuts" are arbitrary, they have been applied after large experience with similar data sets, and the lower level in the regional analysis was chosen to relate (at level of synthesis) to the more widely used vegetation association level

(see above). The higher order groups are useful for establishing regional and subregional patterns, while the lower order groups are useful for conservation assessment.

Classifications at several levels such as those outlined above provide opportunities to make interpretations of the nature of the variation in the floristic data from vegetation recording sites in relation to a range of other information; including geology and location. While the levels of these "cuts" (especially the higher level ones) are arbitrary, they come out of experience with this type of data. It should be noted that while the 600-group level of the regional analysis is still somewhat arbitrary, when the makeup of the 600 groups defined at this level of the regional analysis is examined, it is apparent that many of them have more than similar species lists in common. They also often have similar dominance and structure for many of the sites in them, come from similar habitat and/or are mostly from the same or similar geology.

2.2.2 Analysis of all Nyidinghu data (NYI)

To provide an understanding of the diversity of floristic types present in the data from the Nyidinghu Project area (mine and rail) the 430 sites recorded from these two areas were classified (using the ASO, FUSE, DEND and GDF modules of the PATN package). The intention was not to define units (as it is desirable to assign the sites to the reference classification if possible). Rather, the intention was to gain an understanding of the floristic diversity of the vegetation represented in the data so that the classification of the Nyidinghu data with the reference data set could be more readily interpreted. As part of this classification, arbitrary 25, 50, 100 and 200 group definitions have been made for the purpose of analysis and presentation.

It should be noted that the relationships inferred by this are likely to provide a local context better than can be inferred from the classification with the regional data as the data will more consistent internally than with the reference data set.

2.2.3 Analysis of Nyidinghu data with Reference data set (NYIR)

To help define relationships between the Nyidinghu sites and the reference data set, the combined data set was classified and other analyses carried out (using the ASO, FUSE, DEND and NNB modules of the PATN package). This allows two distinct lines of assessment of the relationship of the Nyidinghu data to the reference classification: firstly

agglomerative polythetic classification and secondly a nearest neighbours assessment. There are reasons why the results of these two approaches are not always consistent. Firstly, the numbers of sites in a survey can promote grouping of sites with other sites from that survey (especially if there are data a quality issues or data sets were collected in different seasons) and secondly the presence of new floristic groups in a new data set can mean that the two methods may indicate different conclusions.

The classification method is used to infer the group a new site belongs to from the groups the existing site(s) it associates with ("joins" to in the dendrogram) belong to. It should be noted that adding new sites to an existing classification often disrupts it to some degree. This can be due in part to the addition of the new sites changing the formation of groups, but often is due to variations in the quality of the data from different projects (which can be due to a variety of factors). When adding many new sites to a classification, there is often a tendency for the new sites to clump together, this can be due to new groups being present in the new data or to data quality issues, or just the large number of samples from a different project. This happened to a large degree in the current analysis. In such cases it is often difficult to infer the group to which sites should be allocated using the classification, as it may not be clear why it has happened. It is possible that no group can be inferred with any certainty and in the present case no inferred group could be determined for more than a third of the new sites using this method.

The "Nearest Neighbours" method infers the group for new a site from the group associated with the sites in the reference classification with which it has most in common (ie., has the highest similarity to in species present). It should be noted that this is only trying to match a new site to <u>any</u> site from the existing classification. It should <u>not</u> be inferred from this that a site is similar to all sites from the assigned group.

With this method it is possible to infer (using the association value) the degree of uncertainty with which a site is allocated to a group. Also, the presence of "new" groups in a data set may be inferred by sites from it having similarity to no sites in the reference data set better than a "reasonable" threshold. A significant issue with this method is that several sites from different groups in the reference classification may be equally similar to a new site. In a few cases, the inferred group for a site was influenced by the number of "close" sites and occasionally the "best" from the dendrogram. For each site, a degree of confidence was

assigned either "reasonable", "possible" and "not likely" being related to the association values <0.6, <0.7 and >0.7 respectively.

In principal, running separate classifications, each with the reference data and one new site (single site insertion) is a "reasonable" approach (Leigh Belbin *pers comm.*) However, this is impractical with large new data sets, which in this case would be 430 separate classifications. From previous studies where this technique has been used, the "nearest neighbour" approach proved relatively comparable. Thus, most emphasis is given to the nearest neighbour method for the large dataset under consideration here.

2.4 Tools Used

The results of the PATN analyses were imported into the Access database, where, using queries, it was joined and summarised with other information such as site characteristics. Excel was used for some analyses and presentations. Some data was exported as kml files for display on satellite images from Google Earth.

3.0 LIMITATIONS

All exercises such as those carried out for this report using the PATN package (Belbin 1987 and later dates) have limitations, including those related to data quality (see below), data density, data distribution and size of the total data set used. Experience with analyses similar to those carried out here shows that the quality of field observation (which is related to the effort expended and the level of expertise available) has a significant influence on the classification obtained from the analyses, with poor data degrading results. However, the results of any analysis are influenced not only by the data quality, but also by the techniques employed.

Limitations in the quality of data can come about through:

- Deficiencies in site (quadrat) selection and size poor site selection can mean that the data recorded does not represent one vegetation type, but is mixed, muddying the classification produced. Inadequate quadrat size means that the size of the area sampled is not adequate to get the appropriate data;
- Inadequate numbers of sites or poor sampling strategy, leading to not all types being sampled, or some types appearing less common than they really are, or more common than they really are;
- Inadequate searching of quadrats, leading to only part of the flora present being recorded and poor definition of the groups defined, or poor assignment of sites;
- Inaccurate identification of specimens, leading to poor definition of the groups defined, or poor assignment of sites;
- Over reliance on field identification of species, leading to errors in the species recorded for quadrats and consequent poor definition of the groups defined, or poor assignment of sites;
- Seasonal conditions such as drought can significantly affect the flora that can be recorded and recent fire can also significantly affect the flora that can be recorded.
- How carefully the data was entered into the database, how well the database is maintained over time to keep use of names of species consistent.

Over a number of years, the authors of this report have come to the conclusion that there is a widespread lack of recognition of the level of skill and determination needed to reduce such errors to the point where they do not have an undue effect on the data provided to them to process for reports such as the current report. While there are different reasons for data degradation in the three different data sets provided for analysis for this report, it is clear that several of the factors listed above have played a part.

A number of these issues are also undoubtedly related to inadequate time being allowed for survey work, we are aware that this comes about partly through underestimation of time

required by consultants themselves and partly through the timeframes of proponents and the times they allow for work (ie, the budgets they allow).

Obviously, variations in seasonal conditions at the time of survey can affect the quality of data collected, as less species will be available in dry periods rather than after good rainfall (when better material, enabling better identifications can also be obtained). While the NYI sites had a wide range of species richness, they were reasonably compatible with other projects (Table 3), and this is likely to reflect the range of habitats sampled.

<u>Table 3</u>. Range of species richness at sites in relevant projects.

Notes: NYI all = All Nyidinghu sites; NYI N = Nyidinghu project area; NYI rail = Nyidinghu railway route sites. Some sites are in both sub-areas of the overall Nyidinghu project; therefore the total number of sites is less than the sum of the two subsets

				7 27 34 23 7 2 0 7 30 33 22 6 2 7 24 34 25 8 3 1 11 24 29 18 13 0 2 0 7 14 23 21 18 9 5 3 7 33 28 17 9 5													
PROJECT*	Average # of species	# Sites	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	100-109					
NYI all	25.5	430	7	27	34	23	7	2	0								
NYI_N	24	281	7	30	33	22	6	2									
NYI rail	26	197	7	24	34	25	8	3	1								
2490	37	37 45		11	24	29	18	13	0	2	0	2					
2491	43	96		7	14	23	21	18	9	5	3						
550AA	25	135	7	33	28	17	9	5									
ВС	21	14		43	43	14											
FMG-2006	22	151	8	38	33	13	6	1	1								
HDRAIL	33	192	3	10	21	34	22	7	2	1							
WASA	35	271		11	30	29	15	8	4	1	1						
WPI	22	427	3	55	20	11	7	4	1								

^{*} see Table 2 for other Project codes

Similarly, variation in the standard of identifications can affect data quality between data sets. While many specimens were identified one of us (MET), there is a significant proportion of the data represented by field observations or inferences from the identified specimens. Anther sources of difference in data quality between the projects in the data set are the differences in experience of those undertaking the primary observations.

Limitations in data density (the surveys in the data set have varied data density) and distribution (see Map 2) for the analyses carried out for this report are also going to have an

impact on the results produced, as there is significant clustering of the data (into project areas) rather than an even spread, and variation in the density (and, therefore, the number of replicates in different geological/habitat types in different projects) of data in different projects. Such limitations could lead to some of the units defined being poorly sampled and, therefore, appearing to be less common than they actually are, others could be more heavily sampled than in an even spread of sites and appear to be more common than they actually are if just the number of sites is taken into account.

Bearing in mind the limitations in the data discussed above, it is obvious that there must be limitations in the definition of the units defined, as it is acknowledged that the data on which they are based on is not ideal. Further, depending on the level of the group defined it should be recognised that the composition of the groups defined by these analyses should not necessarily be interpreted as plant communities that can be recognised in the field. This may be possible for a proportion of the lower order groups defined, but an extensive process of review and refinement, aided by field knowledge and checking would be required to extend the analysis to such a point for all such groups at the lowest level.

The necessarily abstract nature of the higher order groups defined is noted in section 1.2 above. This abstraction means that individual occurrences of (ie. sites referred to) a particular group may have quite different structure and dominance, particularly at higher levels of synthesis. However, at the various levels of synthesis there should be corresponding degrees of similarity in the floristic composition of stands referred to the different groups in them. So at the lowest level, the stands (sites) referred to a group should have relatively similar lists, particularly if data density is high. In the overall data set used for this report, data density is variable for different projects and the number of quadrats is still low for the size of the region studied, so groups in the lowest level of the classification (the 600-group level) will still often have a significant level of difference, although some groups will be more varied than others.

It should be noted that the level of classification used in the reference set (600 groups) is a value judgement, albeit one based on considerable experience. So, too are aspects of the inference of most likely group drawn from the nearest neighbour analysis. This is particularly the case in attempting to distinguish the whether or not what appears to be a new (previously unsampled) group is actually that or an artefact of poor data.

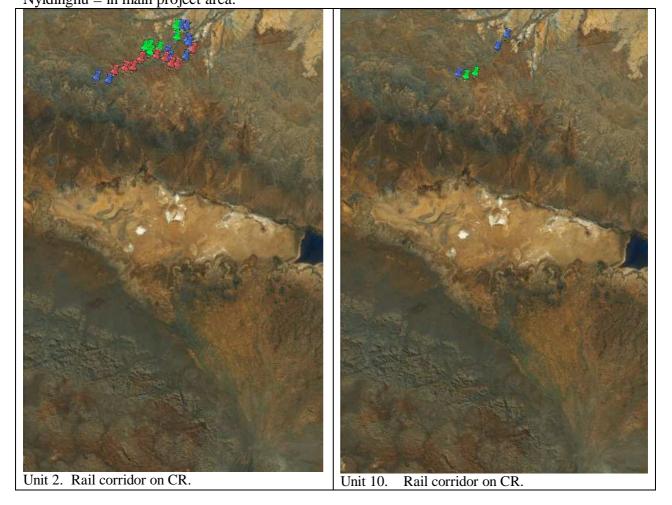
4.0 RESULTS

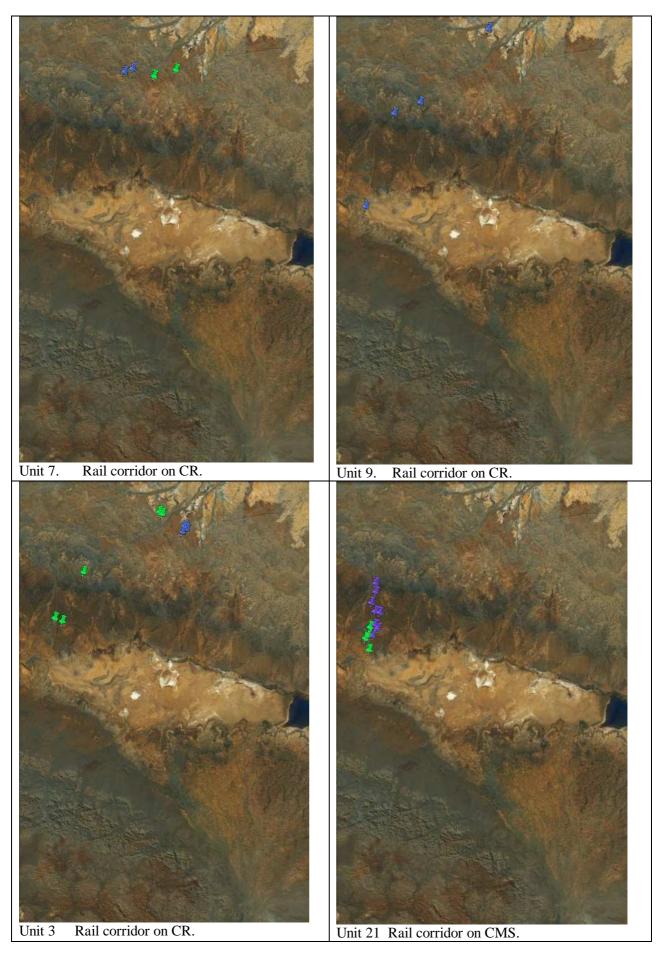
4.1 Classification of NYI Sites alone (local classification)

To examine the variation present in the overall Nyidinghu data set the 430 sites recorded for the two parts of this project (main area and rail section) were classified separately. This classification into 4 arbitrary levels (25, 50, 100 and 200-group levels, see Appendix 2) was done to inform assigning the Nyidinghu sites to the reference classification, but also shows much about the floristics of the area sampled. On the basis of experience with these types of classifications and in particular the fusion score for the different group levels, it is reasonable to infer that there are about 100 distinct floristic types represented in the 430 Nyidinghu sites. The distribution of each of the 25-group level units is shown in Figure 1a-y, with different colours showing the 50-group level units nested within them.

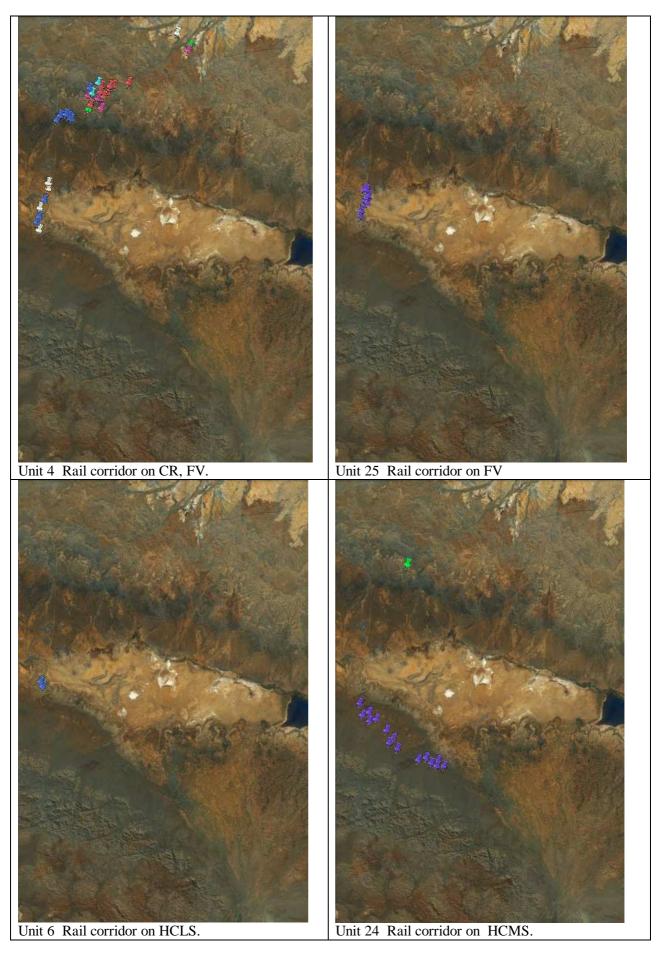
<u>Figure 1a – y.</u> Distribution of each of the 25-group & 50-group units in the Nyidinghu data.

Each image shows one unit at the 25-group level with the 50-group level nested in it indicated by different colours. The images are ordered to show those on the same geomorphological features near each other. Codes such as CR and HCMS (see end of the figure) indicate the geomorphological units the units occur on. Rail = in rail corridor. Nyidinghu = in main project area.

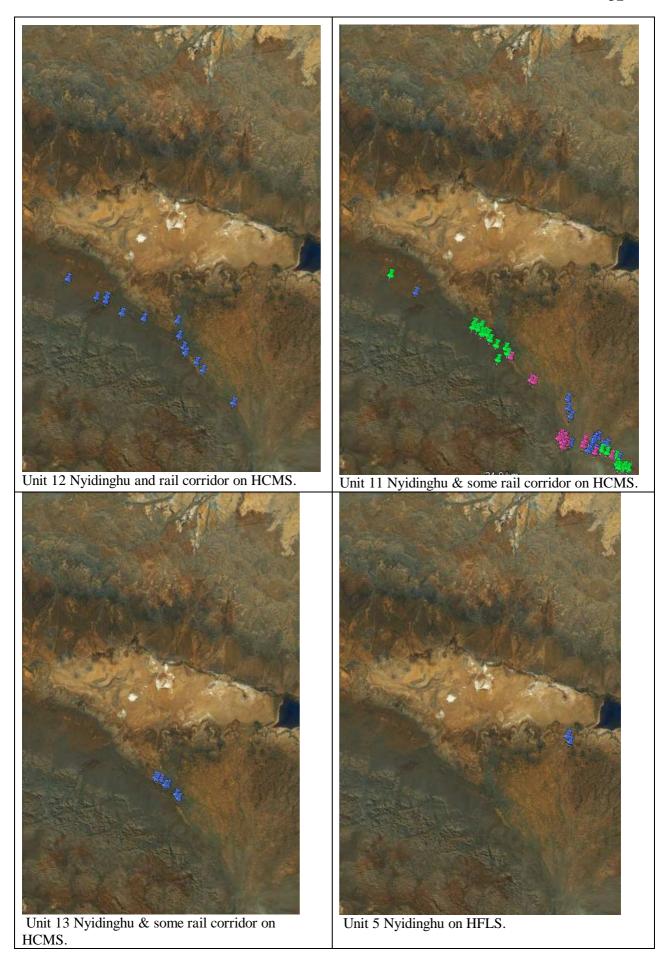




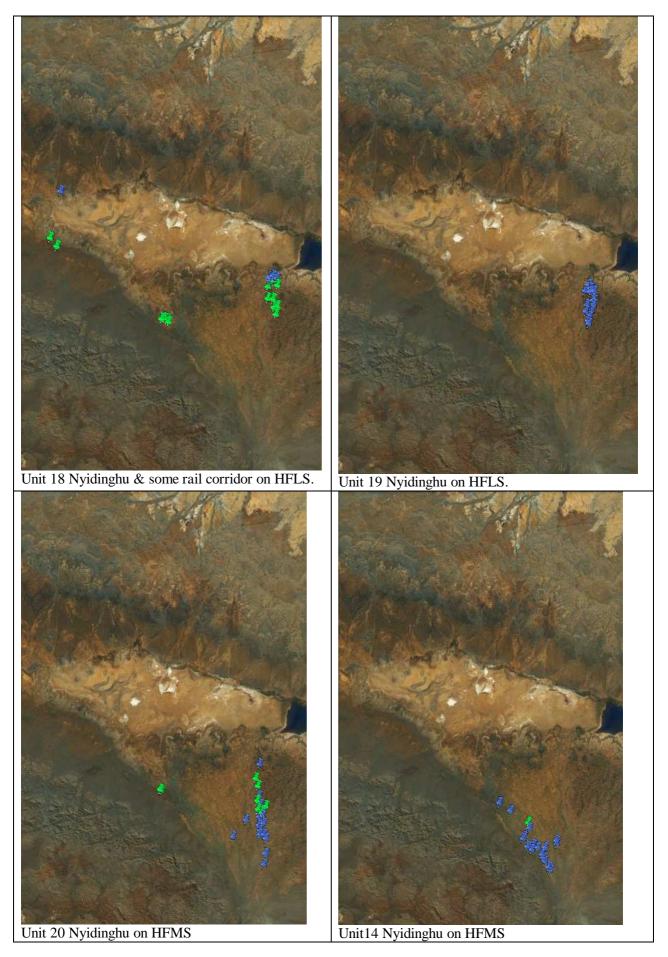
E.A. Griffin & Associates with M.E. Trudgen & Associates



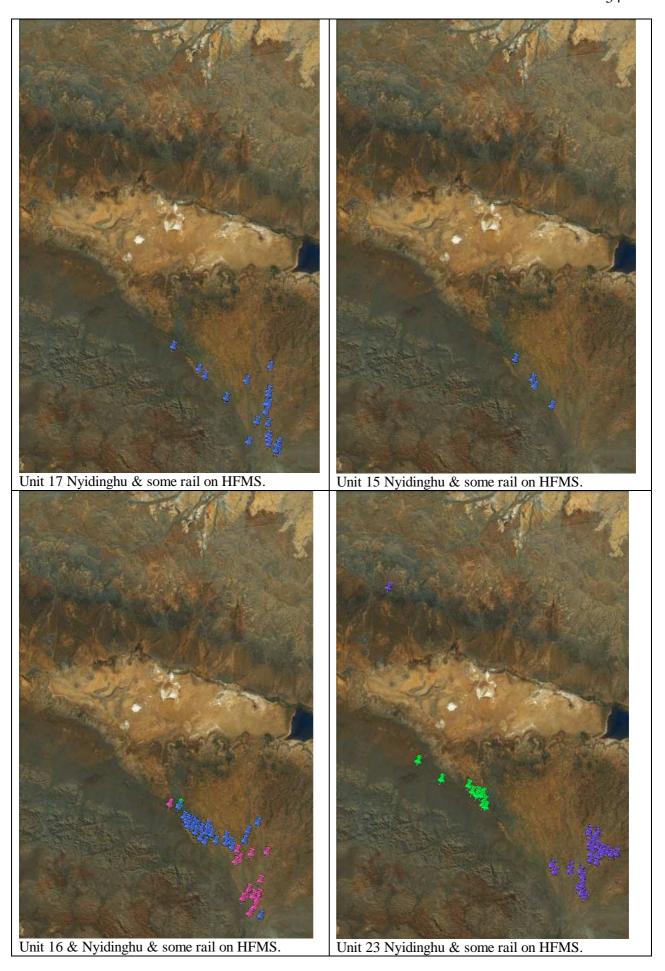
E.A. Griffin & Associates with M.E. Trudgen & Associates



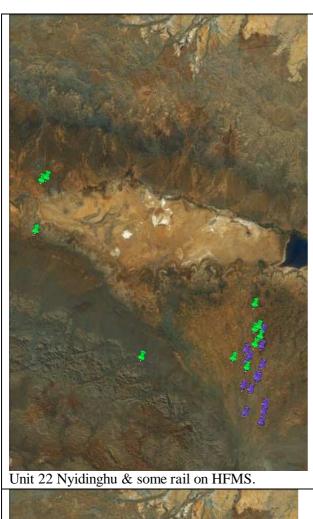
E.A. Griffin & Associates with M.E. Trudgen & Associates



E.A. Griffin & Associates with M.E. Trudgen & Associates



E.A. Griffin & Associates with M.E. Trudgen & Associates





Unit 1 Nyidinghu & some rail on HFUS.

GEOMORPHOLOGY LEGEND:



Unit 8 Nyidinghu & some rail on HFUS.

Examination of Figure 1 shows clearly that geomorphology and the underlying geology are major influence on the formation and distribution of the floristic groups found by the classification. Superficially (at the scale of the images), it appears that many of the floristic groups have similar geographic patterns. It is likely that this represents different segments of catenas (also referred to as land units within the land system mapping). In other terms, this represents rapid change in floristic composition over short distances due to differences in soils and habitats.

An important inference that can be made from these figures is that the floristic data collected in the NYI project appears to be internally consistent.

4.2 Assignment of the new sites to the 600 group level of the reference classification

The dendrogram representing the classification of the NYI sites with the reference sites shows that typical of most similar analyses, the new sites clustered strongly with their peers rather than dispersing amongst the reference sites (Appendix 3). In these situations it is difficult to infer the group to which each site should be assigned. However, some inferences can be made for many sites. However, this was used only to support the inferences from the nearest neighbour analysis.

The nearest neighbour analysis does not suffer from the clustering and it is possible to infer a likely group for each site. This approach infers the group from the reference classification of the reference data set given in Griffin & Trudgen (2009 a & b) for the new site through the group associated with its nearest neighbours from amongst these reference sites. Where the similarity of these nearest neighbours is low, the reliability of this method is low. This was found to be the case for many of the new sites, which consequently have an assignment using this method that is provisional.

The 600-group level floristic group from the reference classification suggested for each f the Nyidinghu sites by the "Nearest Neighbours" method is shown in Table 4. To indicate the degree of certainty of allocations, they are qualified in the table by "?" & "??" progressively indicating moderate to poor fit to the reference classification 600-group level floristic groups.

<u>Table 4</u>: Allocation of the new sites to the 600-group level floristic groups of the reference (regional) classification from Griffin & Trudgen (2099a & b) using "Nearest Neighbours" Notes: Qualifier - ? or ?? indicating moderate or poor fit.

site	gp600	site	gp600	site	gp600	site	gp600	site	gp600	site	gp600	site	gp600
A001	314	A060	383	A128	282?	B056	404?	B118	404?	B183	244?	C060	430
A002	383	A061	383	A129	424??	B057	414??	B119	428	B184	404?	C061	404?
A003	383	A062	383	A130	147??	B058	424	B120	428	B185	379?	C062	577
A004	379	A063	386	A131	266?	B059	141?	B121	425	C001	383	C063	404
A005 A006	383 379	A064 A065	386? 383	A132 A133	147? 131	B060 B061	383 171?	B122 B123	404 425?	C002 C003	383 577	C064 C065	273? 145?
							380			C003			
A007 A008	383	A066 A067	383	A134 B001	147 529?	B062	196	B124	427? 427	C004	577	C066 C067	425?
A009	569? 384	A068	383 131	B001 B002	79?	B063 B064	528?	B125 B129	148?	C005	383 383	C067	426? 276?
A010	383	A069	379	B002	528	B065	301	B130	54?	C007	379	C069	147?
A011	383	A070	384?	B004	380?	B066	296?	B131	139	C007	428	C070	427?
A012	381	A071	383	B005	379?	B067	188	B132	259	C009	424?	C071	424?
A013	147	A072	383	B006	384	B068	383?	B133	565	C010	428?	C072	385
A014	383	A073	425?	B007	384	B069	528	B134	138?	C011	258?	C073	385
A015	384?	A074	433?	B008	379	B070	529	B135	527?	C012	427?	C074	385
A016	148?	A075	425	B009	431?	B071	282	B136	128	C013	424??	C075	379?
A017	148?	A076	430	B010	404?	B072	383	B137	249?	C014	385	C080	527
A018	425??	A077	425?	B011	575?	B073	384?	B138	48?	C015	265?	C081	43?
A019	425??	A078	552?	B012	431?	B074	379	B139	269	C016	425	C082	160?
A020	485??	A079	276?	B013	182?	B075	147?	B140	269?	C017	404?	C083	473?
A021	404?	A080	325?	B014	600?	B076	384	B141	163?	C018	577	C084	471?
A022	425	A081	318?	B015	552?	B077	528?	B142	162?	C019	383	C085	162
A023	552?	A082	567?	B016	171?	B078	569?	B143	71?	C020	147	C086	470
A024	404?	A089	127?	B017	393?	B079	171?	B144	20	C021	147?	C087	83?
A025	425?	A090	170	B018	284?	B080	249?	B145	148?	C022	427	C088	575?
A026	425	A091	579?	B019	71?	B081	273	B146	427?	C023	567?	C089	362
A028	425?	A092	48	B020	155?	B082	379	B147	144	C024	425	C090	104?
A029	404?	A093	20	B021	131?	B083	147	B148	569	C025	435?	C091	565
A030	425?	A094	56	B022	131?	B084	145?	B149	528	C026	575?	C092	564
A031	324?	A095	143	B023	131?	B085	384?	B150	169	C027	425?	C093	128
A032	145?	A096	20?	B024	508?	B086	147?	B151	568?	C028	427	C094	456?
A033 A034	427 319?	A097 A098	269? 20	B025 B026	406? 404?	B087 B088	424? 319?	B152 B153	527? 433?	C029 C030	425? 567	C095 C096	575 450?
A034	552?	A099	460?	B020	404?	B089	145?	B153	433?	C030	425?	C090	450
A035	552	A100	565	B027	131?	B090	273?	B154	404??	C031	147?	C097	565?
A030	435	A101	473?	B029	333?	B090	276	B156	404??	C032	425	C099	398?
A038	425?	A102	565	B030	284?	B092	147	B157	398?	C034	426	C100	427
A039	141?	A103	267	B031	147?	B093	424?	B158	486?	C035	433	C101	567
A040	383	A104	565?	B032	131?	B094	424?	B159	487??	C036	428	C102	404?
A041	383	A105	527	B033	383	B095	430??	B160	484?	C037	379	C103	404
A042	552?	A106	144?	B034	379	B096	424	B161	487?	C038	423	C104	242?
A043	404?	A107	565?	B035	379	B097	404?	B162	484??	C039	577	C105	577?
A044	379	A108	47	B036	254	B098	397?	B163	486??	C040	383	C106	577
A045	383	A109	537	B037	131	B099	430	B164	547	C041	383	C107	383
A046	384	A110	565	B038	379?	B100	437?	B165	487?	C042	383	C108	427
A047	575	A111	568	B039	145	B101	425?	B166	486?	C043	383	C109	577?
A048	575	A112	565	B040	145?	B102	430?	B167	484??	C044	383	C110	383
A049	254??	A113	567	B041	147?	B103	430?	B168	190??	C045	383	C111	577?
A050	123?	A114	433?	B042	148?	B104	430??	B169	550?	C046	423	C112	383?
A051	427	A115	450	B043	556?	B105	430?	B170	577?	C047	428	C113	427
A052	155?	A116	310	B044	276	B106	404?	B171	383	C048	404	C114	385
A053	575	A117	565?	B045	155?	B107	397?	B172	254?	C049	425?	C115	427?
A054	567?	A118	254	B046	383	B108	430?	B173	577	C050	425	C116	577
A055	427?	A119	310	B047	384	B109	428? 428?	B174	577	C051	424?? 425?	C117	385
A056 A057	379 383	A120 A121	40 301?	B048 B049	273? 383?	B110 B111	428?	B175 B176	383? 556	C052 C053	425?	C118 C119	385 385?
A057 A058	383	A121	427	B049 B050	147?	B111 B112	567?	B176	577?	C053	425 !	C119	273
A059	383	A122	308	B050	384?	B112	425?	B177	247	C054	425?	C120	147?
11033	202	A124	427	B051	577	B113	404	B178	139?	C056	398?	C121	385
		A124	193?	B052	379	B115	425	B179	276?	C057	430	C122	427?
		A126	383	B054	424?	B116	404?	B181	365	C058	425?	C124	194?
		A127	427	B055	425?	B117	424?	B182	249	C059	425?	C125	314
		/	,	2000		~111		2102	- 12	2027	. 20.	U123	U 1 1

The information in Table 4 can be summarised to show that the sites in it were allocated to one hundred and fifteen (115) of the 600-group level groups the reference data was allocated to in the classification in Griffin & Trudgen (2009a & b). This summary is shown in Table 5 (see following page), which lists the 600-group level groups of Griffin and Trudgen that sites from the Nyidinghu project have been assigned to and the number of sites assigned to each one. The table also gives information about:

- The confidence of the allocations to groups;
- The relationship with the Nyidinghu local classification;
- The relative proximity of sites in the reference classification from the assigned group (which gives an indication of the likelihood of the uni occurring in the Nyidinghu survey area); and
- A representation of the accord with the classification of the Nyidinghu sites on their own (this gives an indication of the consistency of assignments).

While the assignment process indicated that sites from the Nyidinghu project could be assigned to 115 of the 600-group level groups of Griffin and Trudgen (2009a & b), more than half of these 115 groups had only one or two sites from the Nyidinghu Project assigned to them. For nearly half of these sites the assignment was moderate or poor (Table 6). On the other hand nearly half of the Nyidinghu sites were assigned to just nine of the 600-group level groups of Griffin and Trudgen. Table 6 gives further detail on this spread of assignment.

<u>Table 6.</u> Number of groups assigned to the 600-group level units of the reference classification by frequency class and confidence

Note: The figures in the table vary slightly from those in Table 5 for the assignment of confidence was to the whole gp600 group rather than individual sites. The column "Range" is the number or range of number of sites used to investigate the distribution of sites in the 600-group units.

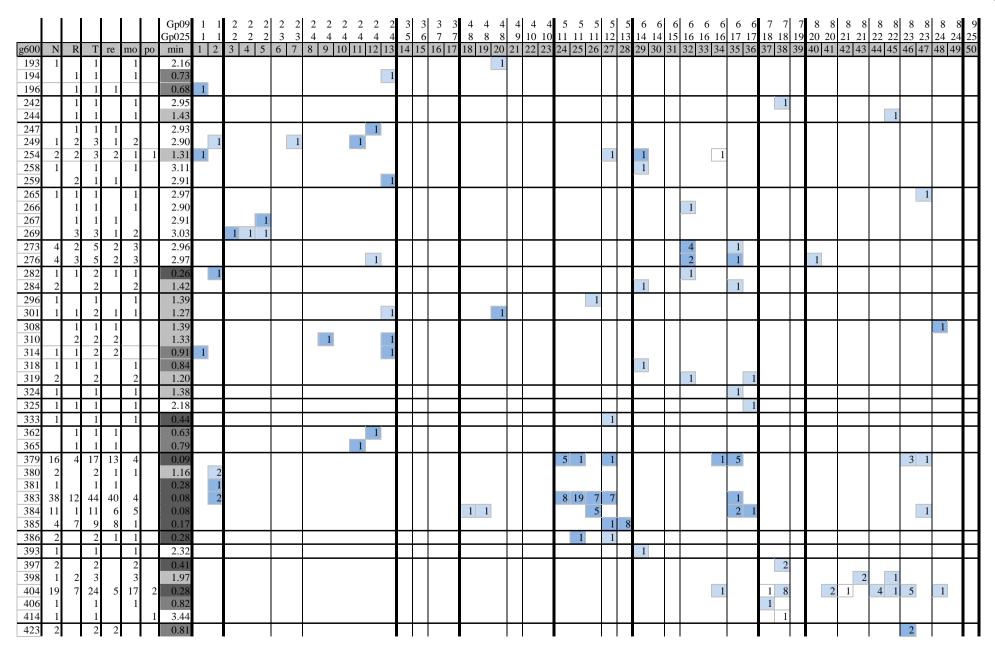
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2 sites	24	48	17	34	7	14						
3-5 sites	18	67	5	20	12	44	1	3				
6-10 sites	9	71	4	34	4	27	1	10				
>10 sites	9	189	5	105	4	84						
all	115	430	50	212	60	202	5	16				

<u>Table 5</u>. Summary of assignment of the Nyidinghu sites to the 600-group units of the reference classification compared to assignment to the 9-, 25- and 50-group levels of the Nyidinghu local classification

Notes: The black horizontal lines in the main part of the table separate the 50-group level groups of the reference (regional) classification. Columns (l-r) N = # sites Nyidinghu area; R = # sites Nyidinghu Rail; T = Total # Nyidinghu and/or Rail; re = reasonable confidence; mo = moderate confidence; po = poor confidence (of assignment to the group); min = minimum distance from centre of Nyidinghu sites to centre of sites from that group-600 group in the reference classification (the darker to paler grey and no shading in this column groups the units assigned on the distance from sites in the same group in the reference data set. the distances are in degrees (lat/long). The blue shading in the body of the table codes the confidence rating to the 600-group group allocation (darker blue = reasonable, pale blue = moderate, no shading = poor). Gp09 and gp025 (read across) are the group levels of those numbers of the Nyidinghu local classification (Gp 50 is in the grey row below these)

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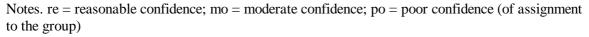
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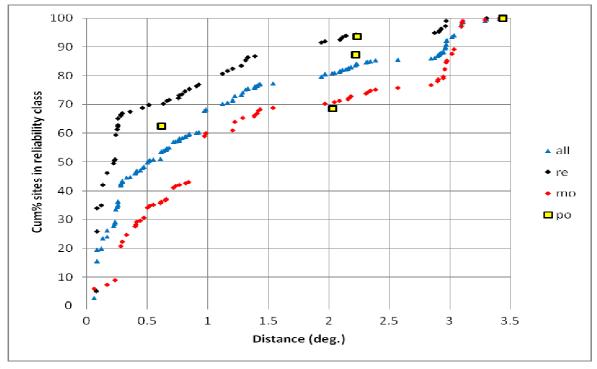
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The groups (600-group level groups of the reference classification) to which a majority of the Nyidinghu sites were assigned had a site that was relatively close to the NYI area. Where the inferred reliability of the assignment to a group was highest, the distance to sites in the reference data set was lower. This is shown in Figure 2, where the relationship is quite clear. As this is consistent with the predominantly local nature of floristic patterns in the Pilbara, it can be inferred that the assigned groups are mostly plausible.

Figure 2 Cumulative % of sites in reliability classes by distance from NYI to nearest site of group.





Most but not all groups from the reference classification previously found in the vicinity of the Nyidinghu Project sites were amongst those assigned to the Nyidinghu sites. Some reference classification groups from the Chichester and Hamersley Ranges were not represented, probably as they were in habitats not sampled in the NYI study. This is shown in Figure 3, which colours sites from the reference data set to show those in groups in the reference classification not applied to sites in the Nyidinghu data differently from those applied to the Nyidinghu data.

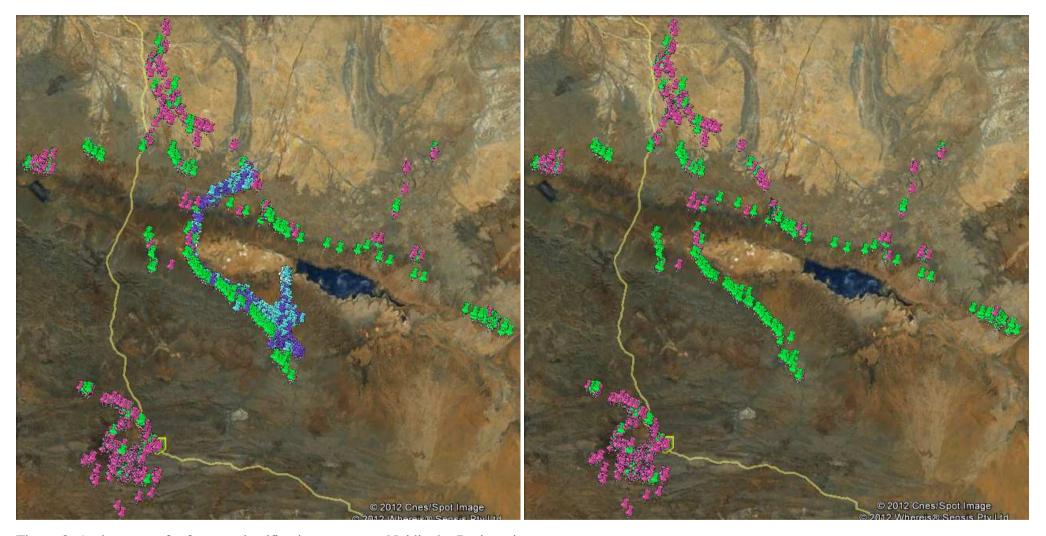
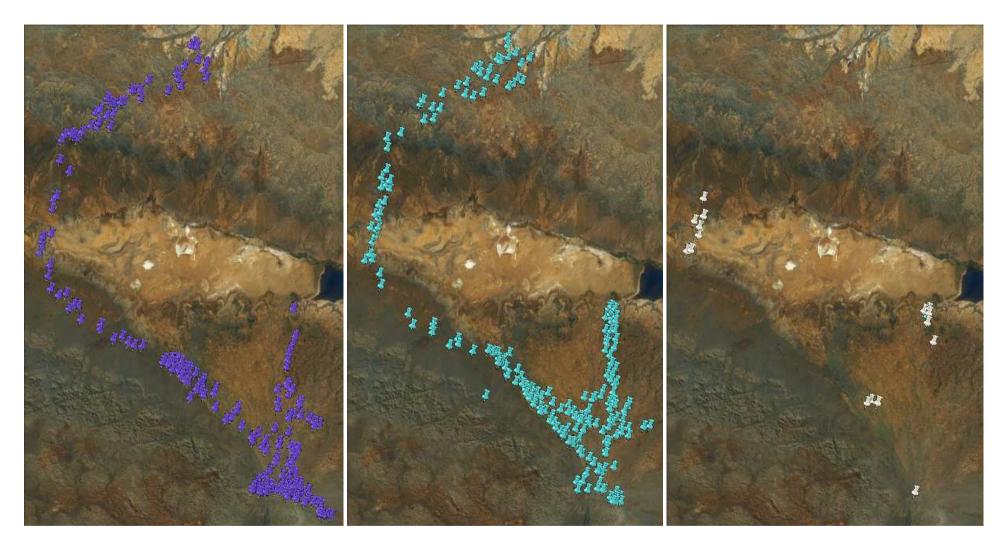


Figure 3. Assignment of reference classification groups to Nyidinghu Project sites.

Notes. Sites from the reference data set in groups from the reference classification applied to sites from the Nyidinghu data are green. Sites from the reference data set in groups from the reference classification not applied to sites from the Nyidinghu project sites are shown blue and white. For clarity, the second image shows just the reference data set sites.



<u>Figure 4</u>. Assignment certainty of the Nyidinghu Project sites to the 600-group level groups of the reference classification <u>Notes</u>. Dark blue = assignment certainty reasonable; pale blue = assignment certainty moderate; white = assignment certainty poor.

Figure 4 shows the distribution of the Nyidinghu sites by the certainty of allocation to the units of the reference classification. Not only is the certainty of the allocation of the Nyidinghu sites to the 600-group level groups of the reference classification related to the proximity of sites in these groups from the reference data set to the Nyidinghu sites, but also the least certain allocation is related to geomorphological features sampled during the Nyidinghu study (Figure 4). Cross comparison of Figure 4 with Figure 3, shows that the least certain allocations are partly on the Weeli Wolli Creek fan, which is very poorly sampled in the reference data set, and partly across the Fortescue Valley and lower slopes of the Chichester Plateau where there are a number of sites in the reference data set that are quite close to those recorded during the Nyidinghu survey. The poorness of allocation of sites from the Weeli Wolli Creek fan is understandable, as this feature could reasonably be expected to have floristic units (groups) not previously sampled. This would not be so likely for the other group of sites with less certain assignment.

Of note is that all the least certain allocations are from sites in or on the margin of the Fortescue Valley. Complementing this is, that fewer of the reasonably certain allocations are on the margins of this valley. The main inference that can be taken from this is that the habitats of the Fortescues Valley floor and adjoining lower slopes of the Chichester Plateau are poorly represented in the regional dataset. Given that there are a number of sites from the reference data set near the Nyidinghu sites, it seems likely that there is significant habitat variation in this area. Conservation assessment for these areas should take this into account and also include other factors (than the known floristic groups) such as the extent of geomorphological features.

4.3 Comparison of regional and local floristic groups

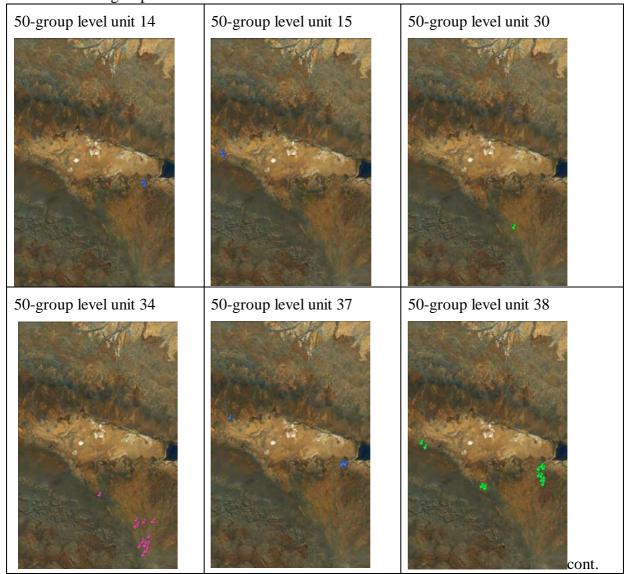
Looking at the rows and columns in Table 5, most groups from both classifications (the assignment to the reference or regional classification and the local classification) are made up of members from several groups of the other. From this it can be inferred that the results from these different approaches are only partially comparable. However, at a high level of synthesis, that is the 9-group level of the local classification (columns) and the 50-group level of the regional classification there is modest accord. The level of accord is not surprising, if only because of the different approaches to assigning sites to groups in the two treatments of the Nyidinghu data.

What is more important is to assess whether the groups defined by the local classification are likely to be present in the regional data and where they occur. For this, the confidence of allocating the 600-group level groups of the reference (regional) classification to the new sites is a useful measure. This is the poor confidence ("po"), moderate confidence ("mo") and reasonable confidence ("re") rows near the bottom of Table 5.

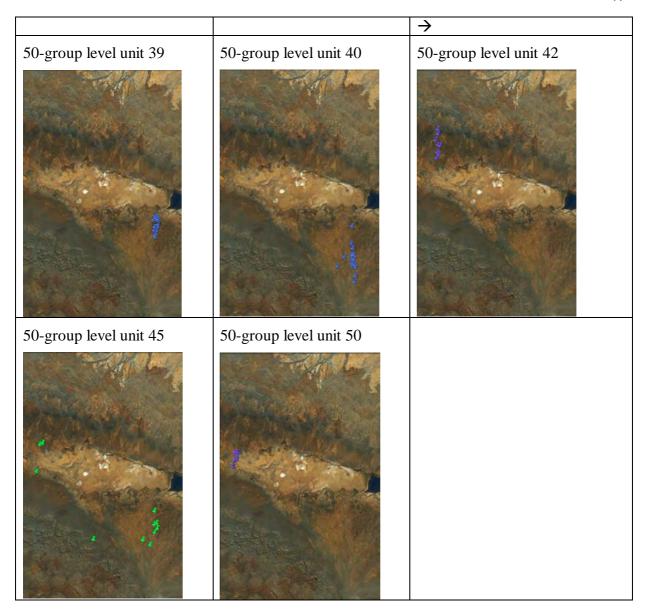
Effectively, the higher the proportion of sites with poor or moderate confidence the more likely is it that the groups (or subsets of them) of the local classification are not represented in the regional data set. The eleven most likely such groups are provided as plots on Google Earth images in Figure 5. They are predominantly on or close to the Fortescue Valley floor. This is not surprising, as most previous studies have not sampled these landforms.

<u>Figure 5</u>. Floristic units from the Nyidinghu local classification most likely to be not represented in the reference (regional) dataset.

Notes: The 50-group level units are used.



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4.4 Review of assignment to 600-group level using physiography and distribution

For those fifty-five cases where only one of the Nyidinghu sites was allocated to a 600-group unit of the reference classification, 12 seem quite likely to be correctly allocated as they occur close to reference sites on the same physiography. As the others are a mix of moderate and reasonable confidence in the allocation, it appears reasonable to suggest that they include some range extensions for the unit, some straight misallocation away from a unit that occurs in the area and some new groups. At the very least they indicate significant diversity.

In seventy-two cases all the reference sites of a 600-group level unit were well away from the Nyidinghu sites allocated to the same group (in 35 cases only one Nyidinghu site was allocated to the group). In twenty-three of these instances, all the sites were from the Weeli

Wolli alluvial fan and in another eight were from there and other parts of the survey area. Given that the Weeli Wolli alluvial fan is very poorly sampled in the reference data set and from the satellite imagery has significant diversity of habitat, it seems likely that these sites record a number of new units. Were there are several sites only from the Weeli Wolli alluvial fan, assigned to a unit, these is likely to be better defined. However, the number of units allocated to sites from this feature is such that it suggests that site selection or data recording (over-reliance on field identifications) has made the situation less clear than desirable. This problem should not take away from the fact that the Weeli Wolli alluvial fan obviously has significant floristic variation in its vegetation. Interestingly in these seventy-two cases there was no overlap between the Weeli Wolli alluvial fan and the Fortescue Valley in the distribution of the sites placed in a unit. On the other hand, there was overlap with the Hamersley slopes (escarpment), Hamersley alluvial (alluvial/colluvial fan along the base of the Hamersley Escarpment) and with the Chichester Plateau and slopes. This suggests that the analysis is picking up relationships in the floristics between sites on the Weeli Wolli alluvial fan and sites on the Hamersley Escarpment and alluvial slopes below with the same source material. There are some parts of the Chichester Range with similar geology.

Overall, the distribution of sites allocated to units by the analysis seems to make sense with some caution needed in the interpretation. The basic problem (as much as data issues) is likely to be that the assignment of the data to only six hundred groups forces too much variation into many of these groups. It seems that when areas (based on geology and physiography) not well sampled in the reference data set are added to the analysis, then new units are encountered. This seems to be the case for the Weeli Wolli alluvial fan, the Fortescue Valley and other such physiographic units in the survey area. Possibly surprisingly it seems to be the case for the Chichester Plateau, which is somewhat better sampled in the reference data set than the Weeli Wolli alluvial fan.

There is some apparent conflict between using the comparison of the local classification to the regional classification and the geographic/physiographic spread of units at the 600-group level to infer new group. This is likely to be due to the different level of synthesis of the units compared. What is important is that both methods infer new groups are likely to be present.

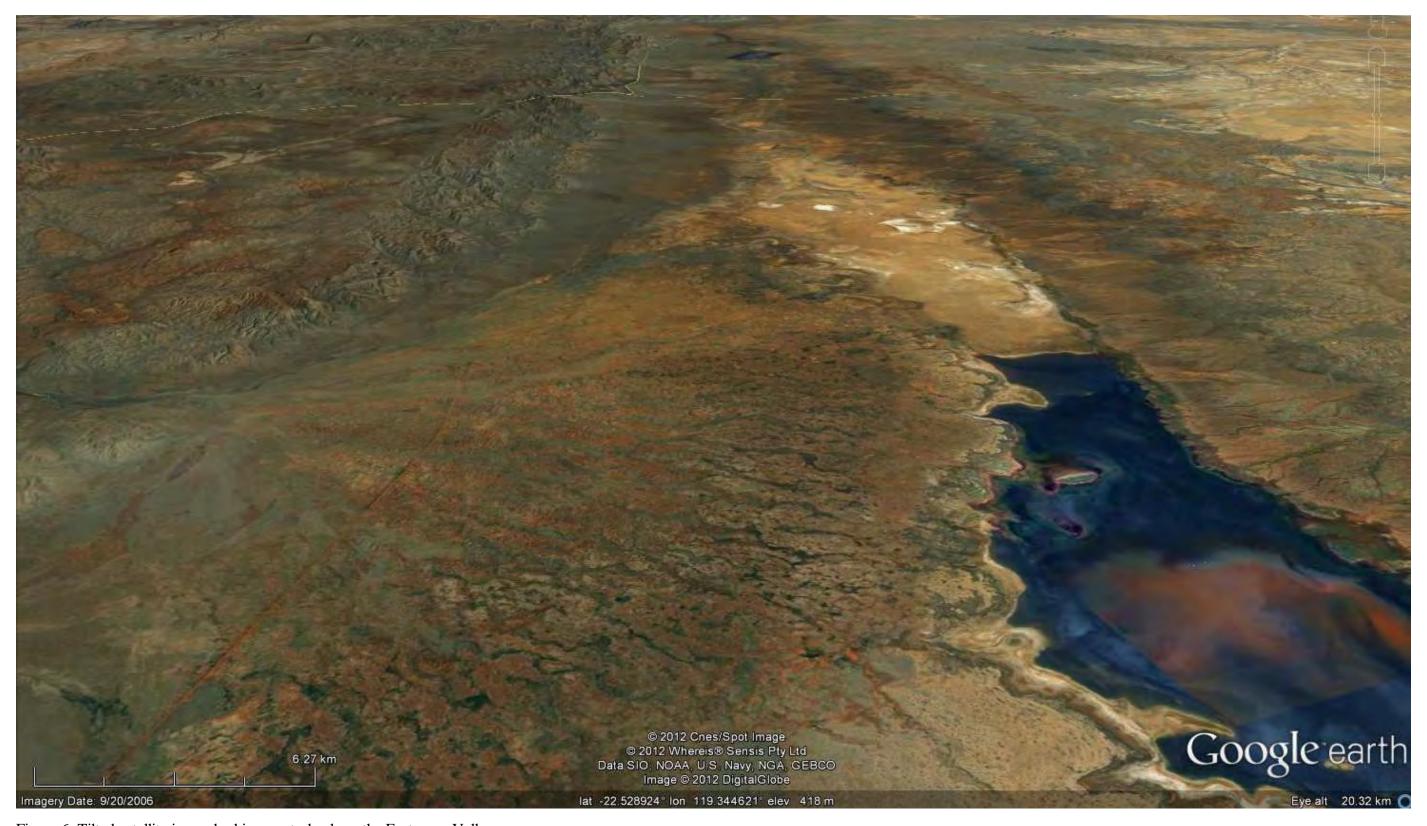
5.0 CONSERVATION ASSESSMENT

5.1 Assessment framework

A conservation assessment needs to be framed in an appropriate context to have proper meaning. This may consist of more than one level. In the present case, the distinctive vegetation and flora of the Pilbara Bioregion means that there is (with one possible exception) no need to go outside that bioregion. The one exception to this is in the special case of the Fortescue Marsh samphire vegetation where there is evidence that some values extend to a lake south of Newman.

Experience from earlier analyses of Pilbara floristic data and vegetation and flora surveys (e.g. Griffin & Trudgen 2005, 2009a, b, c; Trudgen & Casson 1998; Trudgen and Griffin 2001; Trudgen, Morgan & Griffin 2002) has indicated that the major physiographic units of Beard (1975) have vegetation with largely distinctive floristic composition. There is overlap, particularly at higher levels of synthesis, or where geological types occur in more than one of the major physiographic units. The largely distinctive geologies of these large scale geomorphic features and the fact that topographic (and hence habitat) variation and climatic variation coincides with them to some extent means that the observed differences are not particularly surprising. These significant differences in the vegetation of the physiographic units of Beard (1975) imply that they are a reasonable component of the context for the assessment of conservation values for vegetation in the Pilbara Bioregion. That is, they can (with an appropriate modest degree of caution) be used as boundaries to make conservation assessments. However, it must be appreciated that these features are not uniform and within them there are many subdivisions. Where the subdivisions (for example, the Chichester slopes or the Weeli Wolli alluvial fan) have obvious correlation to vegetation differences, it is appropriate to use them.

The sites recorded for the Nyidinghu survey area are largely from two of the physiographic units of Beard (1975), the Chichester Plateau (including its southern slopes) and the Fortescue Valley (where it touches on the edge of the Fortescue Marsh). A small number of sites were recorded on the slopes of the Hamersley Range, which is also the source area for a major feature of the floor of the Fortescue Valley, namely the alluvial fan of the Weeli Wolli Creek. The Chichester Plateau differs markedly in geology to the Hamersley Range, which lies on the southern side of the Fortescue Valley. While the Chichester Plateau is mainly made from volcanic rocks, the Hamersley Range is mainly composed of banded ironstones, although there are areas of volcanics and other rock types.



<u>Figure 6</u>. Tilted satellite image looking westerly along the Fortescue Valley.

Notes. In the foreground are the alluvial fan of the Weeli Wolli Creek and the Fortescue Marsh (which extends into the pale brown area into the mid/background). The Hamersley Range is in the top left and the Chichester slopes and Plateau in the right hand side above the Fortescue Marsh. The paler colour in the top right hand corner is the granites of the Abydos Plain. The significant range of geomorphology is obvious, but note the difference in colour (refecting source rocks) of the bajada (compound alluvial fan) on the Chichester slopes compared to the similar feature along the base of the Hamersley Range. Note also the patterns of vegetation on the Weeli Wolli alluvial fan that reflect the complex drainage patterns on this feature. The yellow line (broken) across the Fortescue Valley is the Great Northern Highway.

The section of the Chichester Plateau and its slopes traversed by the proposed rail line varies significantly in geology (see section 1.6 above). The slopes have well developed alluvial fans that have coalesced to form a bajada (compound alluvial fan). These alluvial fans presumably differ in soil characteristics from those on the southern side of the Fortescue Valley (on the lower part north facing slopes of the Hamersley Range) and the alluvial fan of the Weeli Wolli Creek due to the different source rocks involved. Figure 6 (above) shows these features in a tilted satellite image. The floristics of the vegetation of the bajada of the Chichester Plateau were examined in an earlier report (Griffin and Trudgen 2011) and found to have significant restriction in the occurrence of units found on them.

While the broad scale geomorphology of the area of interest undoubtedly has important connotations for assessing its conservation value for vegetation (as discussed above), this will not be fully relied upon in this report, as knowledge of the level of restriction of individual vegetation types to these physiographic areas is not detailed enough at this time to do so. The appropriate methodology is to use the physiographic information at a broad level and then look at other data to test this and to provide information at a lower level.

Therefore, the more detailed conservation assessments for vegetation made in this report will mainly be based on the floristic groups defined at the 600-group level of the reference classification (see introduction), with some use of the local classification. The investigations of the results of the analysis given in Griffin & Trudgen (2009a & b) indicate that the 600-group level of the reference classification is an appropriate basis for such assessments. It is likely that in most cases where a floristic group at the 600-group level is only recorded in the regional analysis from one of Beard's physiographic regions that it is restricted to that region.

5.2 Conservation assessment

5.2.1 Vegetation of the Weeli Wolli alluvial fan

5.2.1.1 Geomorphological setting and extent

The Weeli Wolli Creek alluvial fan is a large gently sloping structure deposited where the Weeli Wolli Creek enters the Fortescue Valley. It is located in the foreground of Figure 6, where the complex pattern of vegetation on this feature can readily be seen and which is shown in more detail in Figure 8. Presumably, this pattern of vegetation has developed over a long period of time as creeklines running through the alluvial fan have altered course and soil profiles have developed. This alluvial fan is one of a pair of similar structures that adjoin each other, the other one being the alluvial fan of the Fortescue River. This pair is shown in

Figure 7, the Weeli Wolli alluvial fan is just over 50 km wide and about 27 km from south to north. There are obvious similarities between these two structures, but there is no floristic data available from the Fortescue River alluvial fan to assess the degree of similarity of the vegetation. The Fortescue River upstream from its Fortescue Valley fan largely drains different geologies to those drained by the Weeli Wolli Creek. Also, the eastern side of the Fortescue River fan may have had sand deposited on it from the areas of sandplain to the east and the Fortescue River has been dammed upstream from the fan, which will have affected the deposition of alluvium on the fan and may affect the vegetation on it in the longer term.



<u>Figure 7</u>. Satellite image showing the Weeli Wolli Creek and Fortescue River alluvial fans in the Fortescue Valley

Notes. The image is rotated so that the top of the image is north-east, not north.

In spite of these differences, it is clear from the satellite images that the Weeli Wolli and Fortescue River alluvial fans have similar patterns of vegetation, although it is not possible to tell how similar their vegetation is floristically. What can be said is that from the distinctive geomorphology they share, that is it is reasonable to consider these two features as a separate entity for assessment of their vegetation, although this must be done with some caution, as they are likely to have differences floristically. Excluded from this is what appears to be an older structure (with more uniform appearance on Figure 7) at the junction of the two fans. From the imagery, it appears this feature is no longer active in the way the other fans are.

5.2.1.2 Floristic restriction to the Weeli Wolli fan in the new data shown by the local classification

Figure 5 (see above) shows floristic units at the 50-group level of the Nyidinghu local classification (i.e. the stand alone classification of the Nyidinghu data) that are most likely to be not represented in the reference (regional) dataset. Of these eleven units of the local classification, eight occur on the Weeli Wolli alluvial fan of which five were only recorded from it (see Table 7).

The inference is clear, the Weeli Wolli alluvial fan (and to some unknown level the Fortescue River alluvial fan) has a significant diversity of floristic types not found in the 2,8883 site reference data set. While it is obvious that five of these types were not in the reference data because it did not sample the Weeli Wolli alluvial fan, it does not take away from the fact that these units are restricted to the alluvial fan and for the other three largely restricted to it in the available data.

<u>Table 7</u>. Units of the 50-group level of the local (Nyidinghu data only) classification recorded from the Weeli Wolli alluvial fan

Unit of the local classification	Restriction to the Weeli Wolli alluvial fan
50-group level unit 14	Restricted
50-group level unit 30	Restricted
50-group level unit 34	Restricted, but one site at edge of the fan
50-group level unit 39	Restricted
50-group level unit 40	Restricted
50-group level unit 37	One site on margin of Chichester Slopes
50-group level unit 38	Two sites on margin of Hamersley
50-group level utilit 56	alluvium/colluvium slopes
50-group level unit 45	Seven sits on fan and four off of it (see Figure 5)

5.2.1.3 Floristic restriction to and diversity on the Weeli Wolli fan shown by the assignment of the Nyidinghu sites to the 600-group level units of the reference classification

The reference (regional) classification was set at 600 groups as a compromise between the variation in the reference data set and the number of sites in it (2,883 - which seems large until you consider the geological and habitat variation in the Pilbara Bioregion). If many more groups had been defined, then many would have had only one site – which is not greatly useful). What is apparent in the current analysis is that many of the sites from the Nyidinghu data set are closest to groups that are otherwise geographically remote. In some cases this may be due to data inadequacy or the inadequacy of current taxonomy. In most of these cases however, it is likely that the Nyidinghu sites represent new groups.

This makes interpretation of the results for the assignment of the Nyidinghu data to the 600-group level units of the reference classification somewhat more difficult than otherwise, but not greatly. The Nyidinghu sites were assigned with three levels of confidence to the reference classification, this suggests that at least for those of lower confidence that when the geographic separation from the sites in the reference data set assigned to the same unit is high the likelihood is that the Nyidinghu sites represent a new unit. Irrespective of the certainty of the assignment, the assignment to differed groups shows diversity in the floristics of the Weeli Wolli alluvial fan.

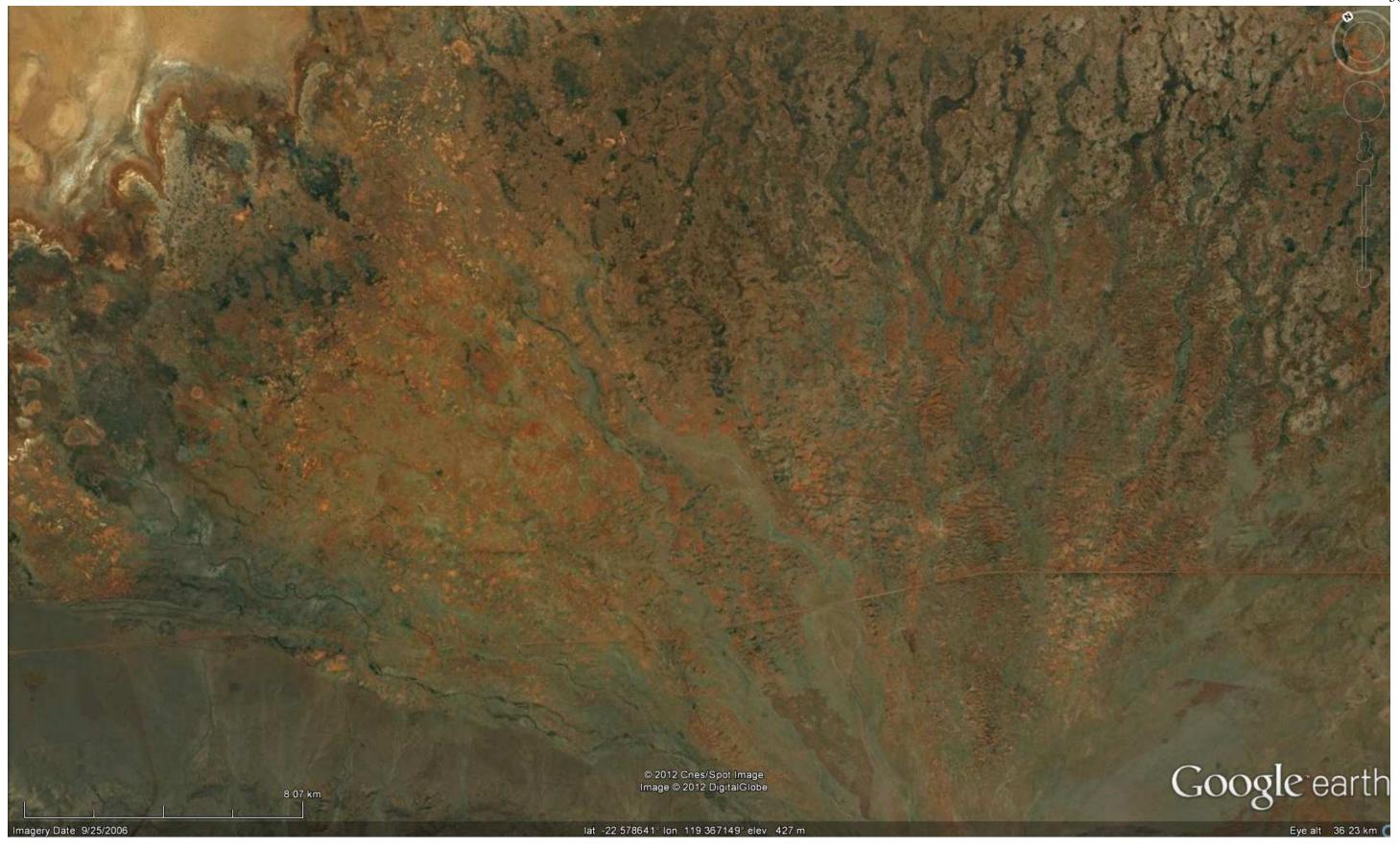
Table 8. lists the units at the 600-goup level of the reference classification recorded for the Weeli Wolli alluvial fan. There are fifty groups recorded, of which 34 are only recorded for the Weeli Wolli alluvial fan in the Nyidinghu data and the other sixteen from the fan and other physiographic features. Note that twenty-six of the units do not have sites from the reference data set in the Nyidinghu area or nearby to it ("away" in the table). The sites in these units are likely to represent new units when a better classification is available (although probably not that many). Note that where there is overlap with other physiographic units, it is mostly with other units that are formed by alluvial processes.

The logical conclusion is that the Weeli Wolli alluvial fan has quite high floristic diversity in the vegetation that occurs in it and that a significant portion of this variation is likely to be restricted to it, or to it and the adjoining Fortescue River alluvial fan.

<u>Table 8</u>. Units at the 600-group level of the reference classification recorded in the Nyidinghu data for the Weeli Wolli alluvial fan

600-	Data	Physiographic unit(s)	Distance to closest site in	Number of
group	group		reference data set	sites
unit				
182	R1	Weeli Wolli Fan	Away	1
188	R1, N1	Weeli Wolli Fan	Away	1
196	R1	Weeli Wolli Fan	Away	1
265	R1, N1	Weeli Wolli Fan	Away	1
266	R1	Weeli Wolli Fan	Away	1
296	N1	Weeli Wolli Fan	Away	1
318	N1, R1	Weeli Wolli Fan	Away	1
324	N1	Weeli Wolli Fan	Away	1
325	N1, R1	Weeli Wolli Fan	Away	1
393	N1	Weeli Wolli Fan	Away	1
414	N1	Weeli Wolli Fan	Away	1
437	N1	Weeli Wolli Fan	Away	1
485	N1	Weeli Wolli Fan	Away	1
600	N1	Weeli Wolli Fan	Away	1
141	R1, N2	Weeli Wolli Fan	Away	2

284	N1?	Weeli Wolli Fan	Away	2
423	N2	Weeli Wolli Fan	Away	2
147	N12,	Weeli Wolli Fan	Away	15
	R9			
319	N2	Weeli Wolli Fan	Away – (HS/FV)	2
397	N2	Weeli Wolli Fan	Away & Local (HS)	2
552	N6, R1	Weeli Wolli Fan	Away & Nearby	6
155	N3, R2	Weeli Wolli Fan	Away & Nearby+ (CS)	4
385	N4, R7	Weeli Wolli Fan	Local (close) (WWF)	9
406	N1	Weeli Wolli Fan	Local (CS – east)	1
435	N2	Weeli Wolli Fan	Local (CS) & Nearby	2
			(CS)	
380	N2	Weeli Wolli Fan	Local+ (CS – east)	2
430	N10	Weeli Wolli Fan	Nearby (CS)	10
508	N1	Weeli Wolli Fan	Nearby+	1
428	N8, R2	Weeli Wolli Fan	Nearby+ (CS, HS)	7
426	R1, N2	Weeli Wolli Fan	Nearby+ (FV)	2
145	N6	Weeli Wolli Fan	Nearby+ (FV)	5
384	R1,	Weeli Wolli Fan (edge)	Local	10
	N11,			
131	N7, R2	Weeli Wolli Fan,	Away (AB)	2
123	N1	Weeli Wolli Fan,	Nearby (AP)	1
148	N3, R4	Weeli Wolli Fan, Chichester Plateau	Away	5
276	N4, R3	Weeli Wolli Fan, Chichester Plateau	Away	5
575	N5, R2	Weeli Wolli Fan, Chichester Plateau	Nearby (CS & HS)	7
427	N9,	Weeli Wolli Fan, Chichester Plateau,	Away & Local (1, HA)	18
	R11	Hamersley alluvial, Chichester slopes	& Nearby+ (CS)	
398	N1, R2	Weeli Wolli Fan, Chichester slopes	Away (CP)	3
433	N2, R3	Weeli Wolli Fan, Chichester slopes	Local (close) (CS)	5
567	N5, R4	Weeli Wolli Fan, Chichester slopes	Nearby & Nearby + (CS)	7
404	N19,	Weeli Wolli Fan, Fortescue Valley	Local (close) (FV)	24
	R7	-		
273	N4, R2	Weeli Wolli Fan, Hamersley alluvial	Away	5
556	N1, R2	Weeli Wolli Fan, Hamersley alluvial	Away -	2
577	N6,	Weeli Wolli Fan, Hamersley alluvial	Close (adjacent)	13
	R11			
424	N11,	Weeli Wolli Fan, Hamersley alluvial	Local (close)	12
	R5			
379	N16,	Weeli Wolli Fan, Hamersley alluvial	Local (WWF, HA) &	18
	R4		Nearby (HR)	
425	N32,	Weeli Wolli Fan, Hamersley alluvial,	Nearby+ (CS, FV)	32
	R2	Hamersley slopes		
171	N3	Weeli Wolli Fan, Hamersley slopes	Away	3
282	N1, R1	Weeli Wolli Fan, Hamersley slopes	Away & Nearby (CP)	2



<u>Figure 8</u>. Weeli Wolli alluvial fan showing the patterns of vegetation on it and the fact that it is not uniform from north to south and that there is a (apparent?) difference between the western and eastern mid-sections. Notes. The top of the image is north-north-east, not north. In the left hand bottom of the image there is a part of the colluvium/alluvium slopes at the bottom of the escarpment of the Hamersley Range.

5.2.2 Vegetation of the alluvial slopes of the Hamersley Escarpment

5.2.2.1 Geomorphological setting and extent

The Hamersley Escarpment (see figures 6 and 9) is the northerly face of the Hamersley Range and extends for the length of the Fortescue Valley, of which it forms one side. Over this length there is variation in the geology and climate, as well as the height and degree of dissection of the escarpment. These factors will cause changes in floristics along the

5.2.2.2 Floristic restriction to the Hamersley Escarpment in the new data shown by the local classification

Figure 5 (see above) shows floristic units at the 50-group level of the Nyidinghu local classification (i.e. the stand alone classification of the Nyidinghu data) that are most likely to be not represented in the reference (regional) dataset. Of these, none are restricted to the Hamersley Escarpment ("slopes"), although one site from 50-group level unit 45 is located on the escarpment. There is therefore no floristic variation on the Hamersley Escarpment in the Nyidinghu data that represents groups not represented elsewhere.

5.2.2.3 Floristic restriction and diversity of the Hamersley Escarpment shown by the assignment of the Nyidinghu sites to the 600-group level units of the reference classification

Table 9 lists the units at the 600-goup level of the reference classification recorded for the Hamersley Escarpment. There are eleven groups recorded, of which three are only recorded for the Hamersley Escarpment in the Nyidinghu data, the other eight re recorded from the Escarpment and other physiographic features. Note that only four of the units do not have sites from the reference data set in the Nyidinghu area or nearby to it ("away" in the table). The sites in these units are likely to represent new units when a better classification is available. Note that where there is overlap with other physiographic units, it is with the alluvial fans along the base of the Escarpment and the Chichester Plateau, where there are areas of similar rocks to the escarpment (although most of the Plateau is different geology). Escarpment.



<u>Figure 9</u>. Satellite image showing a large segment of the Hamersley Escarpment ("slopes") on the south side of the Fortescue Valley and similar segments of the alluvial fans along the base of the Hamersley Escarpment, the Fortescue Valley, the Chichester Plateau and the Chichester slopes.

Notes. The image is rotated so that the top of the image is north-north-east, not north. Note the largely greyish colour (due to the Hamersley in the source rocks) of the alluvial fans along the base of the Hamersley Escarpment compared to the browner Chichester slopes (alluvial fans). East from the Weeli Wolli Creek, the Hamersley Escarpment is very subdued.

<u>Table 9</u> . Units at the 600-group level of the reference classification recorded in the
Nyidinghu data for the Hamersley Escarpment ("slopes")

600- group	Data group	Physiographic unit	Distance to closest site in reference data set	Number of sites
unit	group		reference data set	of sites
529	N2	Hamersley slopes	Close (very) (HS, HR)	2
381	N1	Hamersley slopes	Local (close)	1
079	R1	Hamersley slopes	Away	1
569	R1, N2	Hamersley slopes, Chichester Plateau,	Nearby & Nearby + (CP & CS)	3
528	N4, R1	Hamersley slopes, Chichester Plateau,	Close (very) (HR & CP)	5
249	N1, R2	Hamersley slopes, Chichester Plateau,	Away	3
083	N1	Hamersley slopes, Chichester Plateau,	Away	2
314	N1, R1	Hamersley slopes, Fortescue Valley,	Nearby+ (CP/CS)	2
386	N2	Hamersley slopes, Hamersley alluvial	Local (HS) & nearby+ (AP)	3
383	N38, R12	Hamersley slopes, Hamersley alluvial	Local (close)	44
301	N1, R1	Hamersley slopes, Hamersley alluvial (edge FV)	Away	2

The conclusion is that the Hamersley Escarpment has relatively low floristic diversity in the vegetation that occurs on it in the Nyidinghu area and little of the variation is likely to be restricted to the Nyidinghu area. However, it should be noted that there are relatively few sites from the Escarpment in the Nyidinghu data set, which contributes to the lower diversity compared to the Weeli Wolli alluvial fan.

5.2.3 Vegetation of the floor of the Fortescue Valley

5.2.3.1 Geomorphological setting and extent

The Fortescue Valley separates the Hamersley range from the Chichester Plateau (see Figures 6 and 9) and runs for several hundred kilometres. Its floor is very varied, with the Fortescue Marsh and a similar but smaller wetland to the west being notable features. However, there are also other features such as a ridge across the valley floor at the western end of the Nyidinghu area. Figure 8 shows only part of the Valley, which extends to the east and the west.

5.2.3.2 Floristic restriction to the Fortescue Valley floor in the new data shown by the local classification

Figure 5 (see above) shows floristic units at the 50-group level of the Nyidinghu local classification (i.e. the stand alone classification of the Nyidinghu data) that are most likely to be <u>not</u> represented in the reference (regional) dataset. Of these eleven units of the local classification, two occur on the ridge across the valley floor at the west end of the Nyidinghu area. They are 50-group level unit 15, which was only recorded on the ridge and 50-group level unit 50, which was on the ridge and extended onto the lower part of the Chichester slopes.

5.2.3.3 Floristic restriction to and diversity in the Fortescue Valley floor shown by the assignment of the Nyidinghu sites to the 600-group level units of the reference classification

Although the number of sites from the Fortescue Valley in the Nyidinghu data is a fairly small part of the data, it contains thirteen of the 600-group level units of the reference classification assigned to the sites. Of these seven (see Table 10) were only recorded from the valley floor and the remainder were recorded from one or two other physiographic units as well. Of the thirteen units only recorded from the valley floor, five were not recorded locally or nearby in the reference data set. These may include new units at this level of discrimination. This also applies to three of the other units. Note in Table 8 the low overlap with the Weeli Wolli alluvial fan.

<u>Table 10</u>. Units at the 600-group level of the reference classification recorded in the Nyidinghu data for the Fortescue Valley floor

600-	Data	Physiographic unit	Distance to closest	Number of
group	group		site in reference	sites
unit			data set	
190	R1	Fortescue Valley	Away	1
194	R1	Fortescue Valley	Away	1
310	R2	Fortescue Valley	Away	2
484	R3	Fortescue Valley	Away	3
486	R3	Fortescue Valley	Away	3
487	R3	Fortescue Valley	Close (very) (FV)	3
547	R1	Fortescue Valley	Close (adjacent)	1
			(FV)	
565	R10	Fortescue Valley, Chichester Plateau, Chichester	Away	10
		slopes		
450	R3	Fortescue Valley, Chichester slopes	Away & Nearby	3
			(FV)	
040	R1	Fortescue Valley, Hamersley alluvial	Away	1
254	N2, R2	Fortescue Valley, Hamersley alluvial	Away	4
314	N1, R1	Fortescue Valley, Hamersley slopes	Nearby+ (CP/CS)	2
404	N19,	Fortescue Valley, Weeli Wolli Fan	Local (close) (FV)	24
	R7			

Given the small part of the data set involved, we can say that the data suggests the floor of the Fortescue Valley has significant floristic diversity in the Nyidinghu area. Given the fact that many of the groups sites have been assigned to have not previously been recorded in the floor of the Valley in the Nyidinghu area or nearby to it, there is likely to be variation that is restricted in distribution.

5.2.4 Vegetation of the southern slopes of the Chichester Plateau

5.2.4.1 Geomorphological setting and extent

The part of the southern slopes of the Chichester Plateau through which sites were recorded for the Nyidinghu Project are (as noted above) a section of these slopes with well-developed

alluvial fans. They form a physiographic feature called a *bajada*, a compound group of alluvial fans, this feature is likely to drive the vegetation values of the area of interest. The source rock for these fans is largely the volcanic rocks of the Chichester Plateau, although for part of the area of interest there is also a thin band of banded ironstone along the upper slopes and Chichester Plateau edge. This section of the Chichester slopes was discussed in some detail in Griffin and Trudgen (2011).

5.2.4.2 Floristic restriction in the new data shown by the local classification

Figure 5 (see above) shows floristic units at the 50-group level of the Nyidinghu local classification (i.e. the stand alone classification of the Nyidinghu data) that are most likely to be not represented in the reference (regional) dataset. Of these eleven units of the local classification, three occur on the Fortescue Slopes and one of them was only recorded from them. This was 50-group level unit 42 of the local classification. The other two are 50-group level unit 37 (which has one site on the slopes and the rest on the lower edge of the Weeli Wolli alluvial fan) and 50-group level unit 45 (which has two sites on the slopes and the rest scattered through three other local physiographic units).

The low number new groups using this method is partly a reflection of the fact that one of the surveys included in the reference data set runs along these slopes (ie, they are relatively well sampled). The other factor is that the sites recorded are a transect up the slopes, minimising the variation sampled.

5.2.4.3 Floristic restriction to and diversity of the Chichester Slopes shown by the assignment of the Nyidinghu sites to the 600-group level units of the reference classification

Even though the sites on the Chichester slopes recorded for the Nyidinghu survey are on a transect up the slopes, they were assigned to ten units of the 600-group level of the reference classification. Of these units, four had no sites from the reference data set either locally or nearby (see Table 11) and may represent new groups. Where the units did have sites local or nearby, they were from a mixture of local physiographic units.

From this data, it is apparent that for a narrow strip up the Chichester slopes, the Nyidinghu sites have significant floristic restriction (although this is likely to extend out of the strip) and diversity

<u>Table 11</u>. Units at the 600-group level of the reference classification recorded in the Nyidinghu data for the Chichester Slopes

600- group	Data	Physiographic unit	Distance to closest site in reference	Number
unit	group		data set	of sites
456	R1	Chichester slopes	Away	1
244	R1	Chichester slopes	Away (of which 1 in Ham St flats)	1
527	R4	Chichester slopes Chichester Plateau	Close (very) (CP)	4
568	R2	Chichester slopes, Chichester Plateau	Nearby (CP)	3
565	R10	Chichester slopes, Chichester	Away	10
		Plateau, Fortescue Valley		
450	R3	Chichester slopes, Fortescue Valley	Away & Nearby (FV)	3
398	N1, R2	Chichester slopes, Weeli Wolli Fan	Away (CP)	3
433	N2, R3	Chichester slopes, Weeli Wolli Fan	Local (close) (CS)	5
567	N5, R4	Chichester slopes, Weeli Wolli Fan	Nearby & Nearby + (CS)	7
427	N9, R11	Chichester slopes, Weeli Wolli Fan,	Away & Local (1, HA) & Nearby+	18
		Chichester Plateau, Hamersley	(CS)	
		alluvial		

5.2.5 Vegetation of the Chichester Plateau

5.2.5.1 Geomorphological setting and extent

The Chichester Plateau is a major physiographic feature of the Pilbara Bioregion, it is less well known than the Hamersley Range, but is of similar extent although less rugged. It largely has subdued topography, but in places there are gorges and high points and on its northern side there is a significant escarpment.

5.2.5.2 Floristic restriction in the new data shown by the local classification

Figure 5 (see above) shows floristic units at the 50-group level of the Nyidinghu local classification (i.e. the stand alone classification of the Nyidinghu data) that are most likely to be not represented in the reference (regional) dataset. Of these eleven units of the local classification, none occur on the Chichester Plateau.

5.2.5.3 Floristic restriction to and diversity of the Chichester Plateau shown by the assignment of the Nyidinghu sites to the 600-group level units of the reference classification

In table 12, the Nyidinghu sites on the Chichester Plateau are shown assigned to fourty-two of the 600-group units of the reference classification. Given that the Nyidinghu data for the Chichester Plateau is largely along a transect, rather than widely dispersed, this indicates significant floristic diversity in the vegetation sampled. Of these fourty two units, twenty-one are shown as having no sites either locally or nearby to the Nyidinghu sites. This suggests that the data (at least partly) represents new units (although not necessarily twenty-one) that have not been sampled in the reference data set. As the reference data set does not have

much data from the Chichester Plateau around the area sampled by the Nyidinghu data, this is not surprising.

<u>Table 12</u>. Units at the 600-group level of the reference classification recorded in the Nyidinghu data for the Chichester Plateau

600-	Data	Physiographic unit(s)	Distance to closest site in	Number
group	group		reference data set	of sites
unit				
043	R1	Chichester Plateau	Away	1
047	R1	Chichester Plateau	Away	1
054	R1	Chichester Plateau	Away	1
056	R1	Chichester Plateau	Away	1
104	R1	Chichester Plateau	Away	1
138	R1	Chichester Plateau	Away	1
143	R1	Chichester Plateau	Away	1
247	R1	Chichester Plateau	Away	1
259	R2	Chichester Plateau	Away	1
267	R1	Chichester Plateau	Away	1
579	R1	Chichester Plateau	Away	1
048	R2	Chichester Plateau	Away	2
139	R2	Chichester Plateau	Away	2
144	R2	Chichester Plateau	Away	2
269	R3	Chichester Plateau	Away	3
020	R4	Chichester Plateau	Away	4
169	R1	Chichester Plateau	Away & Local (CP)	1
170	R1	Chichester Plateau	Away & Nearby + (CP)	1
537	R1	Chichester Plateau	Away (HR) & Close (adjacent)	1
473	R2	Chichester Plateau	Close (CP)	2
127	R1	Chichester Plateau	Local (CP)	1
160	R1	Chichester Plateau	Local (CP)	1
162	R2	Chichester Plateau	Local (CP) & Nearby (AP)	2
564	R1	Chichester Plateau	Nearby	4
128	R2	Chichester Plateau	Nearby & Local (CP, AP)	2
163	R1	Chichester Plateau	Nearby (CP)	1
471	R1	Chichester Plateau	Nearby (CP)	1
460	R1	Chichester Plateau	Nearby + (CP)	1
470	R1	Chichester Plateau	Nearby + (CP)	1
362	R1	Chichester Plateau	Nearby+ (AP)	1
365	R1	Chichester Plateau	Nearby+ (AP)	1
568	R2	Chichester Plateau, Chichester slopes	Nearby (CP)	3
565	R10	Chichester Plateau, Fortescue Valley, Chichester	Away	10
		slopes		
071	R1, N1	Chichester Plateau, Hamersley alluvial	Away	2
083	N1	Chichester Plateau, Hamersley slopes	Away	2
249	N1, R2	Chichester Plateau, Hamersley slopes	Away	3
528	N4, R1	Chichester Plateau, Hamersley slopes	Close (very) (HR & CP)	5
569	R1, N2	Chichester Plateau, Hamersley slopes	Nearby & Nearby + (CP & CS)	3
527	R4	Chichester Plateau, Chichester slopes	Close (very) (CP)	4
276	N4, R3	Weeli Wolli Fan, Chichester Plateau	Away	5
575	N5, R2	Chichester Plateau, Weeli Wolli Fan,	Nearby (CS & HS)	7
427	N9,	Chichester Plateau, Weeli Wolli Fan, Hamersley	Away & Local (1, HA) &	18
	R11	alluvial, Chichester slopes	Nearby+ (CS)	

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7.0 REFERENCES

Beard, J.S. (1975). Pilbara. Sheet 4, 1:1,000,000 Series Vegetation Survey of Western Australia. University of Western Australia Press, Nedlands.

Belbin, L. (1987). PATN Reference Manual (313p), Users Guide (79p), Command Manual (47p), and Example Manual (108p). CSIRO Division of Wildlife and Ecology, Lynham, ACT.

Griffin, E.A. and M.E. Trudgen (2005) Floristic analysis of vegetation data from surveys at Nimingarra, Sunrise Hill, Yarrie and Cattle Gorge in the north-east of the Pilbara Bioregion. Unpublished report prepared for Ecologia Environmental Consulting. February 2005.

Griffin E.A. (Ted) & M.E. Trudgen (2009a). Numerical analysis of floristic data from the Fortescue Metals Group Solomon Project and Investigator Mine Project Area with data from the surrounding Pilbara Bioregion of Western Australia. Unpublished report prepared for Coffey Environments.

Griffin E.A. (Ted) & M.E. Trudgen (2009b). Numerical analysis of floristic data from the Fortescue Metals Group Solomon Rail Project Area with data from the surrounding Pilbara Bioregion of Western Australia. Unpublished report prepared for Coffey Environments.

Griffin E.A. (Ted) & M.E. Trudgen (2009c). Numerical analysis of floristic data from the BC Iron Pty Ltd Nullagine project area in the Pilbara Bioregion of Western Australia with data from the surrounding region. Unpublished report prepared for Astron Environmental Services. July 2009.

Griffin E.A. (Ted) & M.E. Trudgen (2011). Numerical analysis of floristic data from the Fortescue Metals Group Christmas Creek and Cloudbreak Project areas with comparisons to data from the surrounding Pilbara Bioregion of Western Australia. Prepared for ENV Australia Pty Ltd.

Thackway, R., and Cresswell, D. (eds) (1995). *An Interim Biogeographic Regionalisation for Australia: a framework for establishing the national system of reserves, Version 4.0.*Australian Nature Conservation Agency, Canberra.

Van Vreeswyk, A.M.E., A.L. Payne, K.A. Leighton & P. Hennig (2004). An inventory and condition survey of the Pilbara region, Western Australia. Technical Bulletin No. 92, Department of Agriculture, Western Australia

Shepherd, K.A & Stephen J. van Leeuwen (2011). *Tecticornia globulifera* and *T. medusa* (subfamily Salicornioideae: Chenopodiaceae), two new priority samphires from the Fortescue Marsh in the Pilbara region of Western Australia

Thorne, A.M., and Tyler, I.M. (1996). Roy Hill, W.A. Sheet SF50-12 (2nd edition): Western Australian geological Survey, 1:250,000 Geological Series.

Trudgen, M.E. & N. Casson (1998). Flora and vegetation surveys of Orebody A and Orebody B in the West Angela Hill area, an area surrounding them, and of rail route options considered to link them to the existing Robe River Iron Associates rail line. Unpublished report for Robe River Iron Associates.

Trudgen and Griffin (2001). Floristic analysis of vegetation site data from the Burrup Peninsula, Dolphin, Angel and Gidley Islands with data from Cape Preston the Chichester Ranges and other localities. Volume 2 of: A flora, vegetation and floristic survey of the Burrup Peninsula, some adjoining areas and part of the Dampier Archipelago, with comparisons to the floristics of areas on the adjoining mainland. Prepared by M.E. Trudgen and Associates for The Department of Mineral and Petroleum Resources, Perth, W.A. September 2001.

Trudgen, M.E., Morgan, B.R and Griffin E.A. (2002). A flora and vegetation survey of the proposed mine areas and access road for the Panorama Project. Unpublished report prepared for Astron Environmental by M.E. Trudgen & Associates.

8.0 APPENDICES

Appendix 1 Reconciliation of Species in Regional Analysis

	NAME	lookup
	? Bothriochloa	omitted
	Asteraceae sp.	omitted
	Asteraceae sp. (inadequate material)	omitted
	Chara sp.	omitted
	Cyperaceae sp.	omitted
	Fabaceae indet.	omitted
	Goodeniaceae sp.	omitted
	Papillionaceae sp.	omitted
	Poaceae sp.	omitted
	Poaceae sp. (CP19-3, WPI)	omitted
	Poaceae sp. (inadequate material)	omitted
	Podaxis pistillaris	omitted
	Unknown sp.	omitted
	Unknown sp. (inadequate material)	omitted
29	Cheilanthes sieberi subsp. sieberi	Cheilanthes sieberi
29	Cheilanthes sp.	omitted
29	Cheilanthes sp. (inadequate material)	omitted
156	Bulbostylis turbinata (form B; M1-16)	Bulbostylis turbinata
156	Cyperus sp.	omitted Find him to live to a second to the
156	Fimbristylis ? depauperata	Fimbristylis depauperata
156 163	Fimbristylis sp.	omitted Amphipogon sericeus (Hammersley form; MET
103	Amphipogon sericeus	15,335)
163	Aristida holathera	Aristida holathera var. holathera
163	Aristida notatiera Aristida sp.	omitted
163	Aristida sp. (inadequate material)	omitted
163	Chloris sp.	omitted
163	Cymbopogon ? ambiguus	Cymbopogon ambiguus
163	Cymbopogon ? bombycinus	Cymbopogon bombycinus
163	Cymbopogon ? obtectus	Cymbopogon obtectus
163	Cymbopogon sp.	omitted
163	Cymbopogon sp. (inadequate material)	omitted
163	Cyperochloa hirsuta	omitted
163	Digitaria sp.	omitted
163	Enneapogon sp.	omitted
163	Enneapogon sp. (inadequate material)	omitted
163	Eragrostis ? elongata	Eragrostis elongata
163	Eragrostis aff. xerophila	Eragrostis xerophila
163	Eragrostis sp.	omitted
163	Eragrostis sp. (inadequate material)	omitted
163	Eragrostis xerophila (fine leaf form)	Eragrostis verophila
163	Eragrostis xerophila (typical) Eriachne aff. benthamii	Eragrostis xerophila Eriachne benthamii
163 163	Eriachne aff. benthamii Eriachne mucronata	Eriachne benthamii Eriachne mucronata (typical form)
163	Eriachne mucronata (Arid Form)	Eriachne mucronata (typical form) Eriachne mucronata (arid form) (MET 12 736)
163	Eriachne mucronata (Arid Form) Eriachne pulchella subsp. dominii	Eriachne pulchella
163	Eriachne pulchella subsp. pulchella	Eriachne pulchella
163	Eriachne sp.	omitted
163	Eriachne sp. (inadequate material)	omitted
163	Iseilema sp.	omitted
163	Leptochloa fusca	omitted
163	Panicum sp.	omitted
163	Paractaenum refractum	Urochloa piligera
163	Paspalidium sp.	omitted
163	Setaria sp.	Setaria dielsii

	NAME	lookun
163	Triodia ? basedowii	lookup omitted
163	Triodia aff. epactia	Triodia epactia omitted
163	Triodia aff. lanigera (dwarf habit)	
163	Triodia aff. longiceps	Triodia longiceps
163	Triodia aff. pungens	Triodia pungens
163	Triodia epactia (Form 1)	Triodia epactia
163	Triodia epactia (Form 2)	Triodia epactia
163	Triodia epactia (Form 3)	Triodia epactia
163	Triodia epactia (Form 4)	Triodia epactia
163	Triodia epactia (Form 5)	Triodia epactia
163	Triodia sp.	omitted
163	Triodia sp. nov.	Triodia sp. Robe River
163	Urochloa gilesii subsp. gilesii (glabrous	omitted
1.62	florets)	
163	Urochloa sp.	omitted
163	Urochloa sp. 'glabrous apices'	omitted
163	Whiteochloa aff. airoides	Whiteochloa airoides
175	Grevillea sp.	omitted
175	Grevillea wickhamii subsp. ?	Grevillea wickhamii
175	Grevillea wickhamii subsp. aprica	Grevillea wickhamii
175	Grevillea wickhamii subsp. hispidula	Grevillea wickhamii Grevillea wickhamii
175	Grevillea wickhamii subsp. macrodonta	
199	Tribulus sp.	omitted
199	Tribulus sp. (inadequate material)	omitted
199	Zygophyllum eichleri	Zygophyllum iodocarpum
199	Zygophyllum retivalve	Zygophyllum iodocarpum
199	Zygophyllum sp.	Zygophyllum iodocarpum
201	? Glycine sp.	omitted
201	Acacia ? hilliana x stellaticeps (GLD(NIM)23.28)	omitted
201	Acacia ? lysiphloia x monticola (B.R. Maslin	omitted
201	2671)	Offitted
201	Acacia aff. aneura (scythe-shaped; MET	Acacia aneura var. intermedia
201	15,743)	Acacia ancura var. intermedia
201	Acacia ancistrocarpa x stellaticeps	omitted
201	Acacia aneura	omitted
201	Acacia aneura var. ?	omitted
201	Acacia aptaneura	omitted
201	Acacia atkinsiana X tenuissima	omitted
201	Acacia ayersiana x	omitted
201	Acacia bivenosa x sclerosperma	omitted
201	Acacia citrinoviridis (atypical)	Acacia citrinoviridis
201	Acacia colei x elachantha	omitted
201	Acacia coriacea	Acacia coriacea subsp. coriacea
201	Acacia elachantha (golden hairy form)	Acacia elachantha
201	Acacia elachantha (golden hairy variant)	Acacia elachantha
201	Acacia elachantha (silvery hairy variant)	Acacia elachantha
201	Acacia eriopoda x monticola (B.R. Maslin	omitted
	7322)	
201	Acacia hamersleyensis	Acacia hamersleyensis (bushy form)
201	Acacia hamersleyensis (spindly form)	Acacia hamersleyensis (bushy form)
201	Acacia incurvaneura	omitted
201	Acacia monticola x tumida var. pilbarensis	omitted
201	Acacia mulganeura	omitted
201	Acacia rhodophloia x sibirica	omitted
201	Acacia sclerosperma	Acacia sclerosperma subsp. sclerosperma
201	Acacia sibirica	omitted
201	Acacia sp.	omitted
	1 *	

201 Acacia sp. (inadequate material) omitted 201 Acacia stenophylla Acacia stenophylla omitted 201 Acacia trachycarpa x umida var. pilbarensis omitted 201 Acacia trachycarpa x tumida var. pilbarensis omitted 201 Acacia trachycarpa x tumida var. pilbarensis omitted 201 Acacia trachycarpa x tumida var. pilbarensis omitted 201 Acacia tumida subsp. 7 pilbarensis x ? 201 Acacia tumida subsp. 7 pilbarensis x ? 201 Acacia tumida subsp. 7 pilbarensis x ? 201 Cassia 2 plaucifolia x aff. oligophylla (thinly sericeous) y helmsii omitted 201 Cassia 2 digophylla x glaucifolia omitted 201 Cassia 2 digophylla x glaucifolia y omitted 201 Cassia 2 digophylla x glaucifolia y omitted 201 Cassia glaucifolia x glutinosa omitted 201 Cassia glaucifolia x glutinosa omitted 202 Cassia glutinosa x lucrssenii omitted 203 Cassia plutinosa x lucrssenii omitted 204 Cassia plutinosa x lucrssenii omitted 205 Cassia hamersleyensis x sp. Karajini (MET 10 392) 206 Cassia helmsii x omitted 207 Cassia helmsii x omitted 208 Cassia helmsii x omitted 209 Cassia oligophylla x glutinosa (FMG116-02) omitted 201 Cassia oligophylla x glutinosa (FMG116-02) omitted 201 Cassia plutinosa x zistrica omitted 202 Cassia plutinosa x zistrica omitted 203 Cassia plutinosa x zistrica omitted 204 Cassia plutinosa y zistrica omitted 205 Cassia prunosa x lucrsenii omitted 206 Cassia plutinosa y zistrica omitted 207 Cassia plutinosa y zistrica omitted 208 Cassia prunosa x lucrsenii omitted 209 Cassia prunosa x lucrsenii omitted 200 Cassia prunosa x lucrsenii omitted 201 Cassia prunosa x lucrsenii omitted 202 Cassia prunosa x lucrsenii omitted 203 Cassia prunosa x lucrsenii omitted 204 Cassia prunosa x lucrsenii omitted 205 Cassia prunosa x lucrsenii omitted 206 Cassia prunosa x lucrsenii omitted 207 Cassia prunosa x lucrsenii omitted 208 Cassia prunosa x lucrsenii omitted 209 Cassia prunosa x lucrsenii omitted 200 Cassia prunosa x lucrsenii omitted 201 Cassia prunosa x lucrsenii omitted 202 Cassia prunosa x lucrsenii omitted 203 Cassia prunosa x lucrsenii omitted 204 Ca		NAME	lookup
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Cassia ? glaucifolia x aff. oligophylla (thinly sericeous)(FMR29-11)		Acacia tumida subsp. ? pilbarensis x ?	
Cassia 2 oligophylla x omitted		Cassia ? glaucifolia x aff. oligophylla (thinly	
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helmsii	201	Cassia ? oligophylla x glaucifolia	omitted
Cassia glutinosa x luerssenii omitted omitted Cassia glutinosa x stricta' omitted Omitted	201		omitted
Cassia glutinosa x lucrssenii	201		omitted
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Cassia luerssenii x 'stricta'			
Cassia oligophylla x glutinosa (FMG116-02)			
Cassia oligophylla x glutinosa (FMG116-02) Cassia oligophylla x helmsii Senna artemisioides subsp. helmsii			
Cassia oligophylla x helmsii Senna artemisioides subsp. helmsii			
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201		lookup omitted
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201	Senna glutinosa	Senna glutinosa subsp. glutinosa
201	Senna glutinosa subsp. charlesiana	omitted
201	Senna glutinosa subsp. glutinosa x luerssenii	omitted
201	Senna glutinosa subsp. glutinosa x stricta	omitted
201	Senna glutinosa subsp. luersenii x pruinosa	omitted
201	Senna glutinosa subsp. luersenii x stricta	omitted
201	Senna glutinosa subsp. x glutinosa x stricta	omitted
201	Senna glutinosa subsp. x luerssenii	Senna glutinosa subsp. luerssenii
201	Senna sp.	omitted
201	Senna sp. (inadequate material)	omitted
201	Swainsona sp.	omitted
201	Tephrosia aff. clementii	omitted
201	Tephrosia aff. densa	omitted
201	Tephrosia aff. rosea	omitted
201	Tephrosia aff. supina	omitted
201	Tephrosia rosea	omitted
201	Tephrosia sp.	omitted
201	Tephrosia sp. (HD133)	omitted
201	Tephrosia sp. (inadequate material)	omitted
201	Tephrosia sp. Pilbara (A.L. Payne PRP 1393)	Tephrosia aff. supina (MET 12,357)
201	Tephrosia supina (06BP45-006)	omitted
201	Vigna sp.	omitted
201	Vigna sp. central (M.E. Trudgen 1626)	Vigna lanceolata var. latifolia
201	Zornia sp.	omitted
203	Polygala isingii	Polygala aff. isingii
203	Polygala sp.	omitted
203	Polygala sp. prostrate (P.K. Latz 4900)	Polygala aff. isingii
211	Ficus aculeata	Ficus aculeata var. indecora
211	Ficus aculeata var. indecora	Ficus aculeata var. indecora
211	Ficus platypoda var. A	Ficus brachypoda
211	Ficus platypoda var. B	Ficus brachypoda
211	Ficus platypoda var. D	Ficus brachypoda
211	Ficus platypoda var. E	Ficus brachypoda
211	Ficus platypoda var. F	Ficus brachypoda
211	Ficus platypoda var. G	Ficus brachypoda
224	Mukia aff. maderaspatana (1) (grey scabrid rounded)	Cucumis maderaspatanus
224	Mukia aff. maderaspatana (2) (grey scabrid	Cucumis maderaspatanus
	serrate)	
224	Mukia aff. maderaspatana (3) (green scabrid rounded)	Cucumis maderaspatanus
224	Mukia aff. maderaspatana (4) (green not	Cucumis maderaspatanus
	scabrid)	Cacamo maserasparanas
224	Mukia aff. maderaspatana sp. A	Cucumis maderaspatanus
224	Mukia aff. maderaspatana sp. B	Cucumis maderaspatanus
224	Mukia aff. maderaspatana sp. C	Cucumis maderaspatanus
224	Mukia aff. maderaspatana sp. D	Cucumis maderaspatanus
224	Mukia aff. maderaspatana sp. E	Cucumis maderaspatanus
224	Mukia aff. maderaspatana sp. F	Cucumis maderaspatanus
224	Trichosanthes cucumerina	Trichosanthes cucumerina var. cucumerina
242	Adriana tomentosa	Adriana urticoides var. urticoides
242	Adriana tomentosa var. hookeri	Adriana urticoides var. urticoides
242	Adriana tomentosa var. tomentosa	Adriana urticoides var. urticoides
242	Euphorbia aff. australis	omitted
242	Euphorbia aff. boophthona (large seed form)	Euphorbia boophthona (large seed form)
242	Euphorbia aff. coghlanii	omitted
242	Euphorbia aff. drummondii	omitted

	NAME								
242	NAME	lookup							
242	Euphorbia aff. myrtoides	omitted Furthership coghlenii							
242	Euphorbia alsiniflora	Euphorbia coghlanii							
242	Euphorbia australis subsp. glaucescens	omitted							
242	Euphorbia sp.	omitted							
242	Euphorbia sp. (inadequate material)	omitted							
242	Euphorbia tannensis	Euphorbia tannensis subsp. eremophila (Hamersley form)							
242	Euphorbia tannensis subsp. eremophila	Euphorbia tannensis subsp. eremophila (Hamersley form)							
247	Notoleptopus decaisnei	Notoleptopus decaisnei var. orbicularis (A.B. Craig 428)							
247	Sauropus sp.	omitted							
281	Corymbia candida subsp. candida	Corymbia candida							
281	Corymbia candida subsp. dipsodes	Corymbia candida							
281	Corymbia deserticola	Corymbia deserticola subsp. deserticola							
281	Corymbia opaca	Corymbia hamersleyana							
281	Corymbia sp.	omitted							
281	Eucalyptus leucophloia	Eucalyptus leucophloia subsp. leucophloia							
281	Eucalyptus seucopinoia Eucalyptus sp.	omitted							
281	Eucalyptus sp. (WPI, UCW1-30)	omitted							
281	Malleostemon hursthousei	omitted							
281	Melaleuca lanceolata	Melaleuca xerophila							
299	Alectryon oleifolius	Alectryon oleifolius subsp. oleifolius							
309	Abutilon aff. dioicum	Abutilon dioicum							
309	Abutilon aff. doicum (HD72-14)	Abutilon aff. dioicum (HD72-14)							
309	Abutilon aff. fraseri (1)	Abutilon fraseri							
309	Abutilon aff. fraseri (site 1212)	Abutilon fraseri							
309	Abutilon aff. lepidium	omitted							
309	Abutilon aff. lepidium (Hilltops)	omitted							
309	Abutilon aff. lepidum (1)	Abutilon aff. lepidum (1) (MET 15 352)							
309	Abutilon aff. lepidum (4)	Abutilon macrum							
309	Abutilon otocarpum	Abutilon otocarpum (acute leaf form)							
309	Abutilon oxycarpum	Abutilon oxycarpum subsp. prostratum							
309	Abutilon sp.	omitted							
309	Abutilon sp. (inadequate material)	omitted							
309	Corchorus aff. lasiocarpus subsp. parvus	Corchorus lasiocarpus subsp. parvus							
309	Corchorus aff. parviflorus (JW011-11)	Corchorus aff. parviflorus							
309	Corchorus aff. walcottii	omitted							
309	Corchorus incanus	Corchorus incanus subsp. incanus							
309	Corchorus sidoides	omitted							
309		omitted							
309	Corchorus sp. (inadequate material)								
		omitted Cough arms triidens							
309	Corchorus trilocularis	Corchorus tridens							
309	Gossypium australe	Gossypium australe (Burrup Peninsula form)							
309	Hibiscus aff. coatesii	omitted							
309	Hibiscus aff. sturtii	omitted							
309	Hibiscus sp.	omitted							
309	Hibiscus sp. (inadequate material)	omitted							
309	Hibiscus sturtii	Hibiscus sturtii var. campylochlamys							
309	Hibiscus sturtii (Site 1209)	Hibiscus sturtii var. campylochlamys							
309	Hibiscus sturtii var. aff. grandiflorus	Hibiscus sturtii var. grandiflorus							
309	Hibiscus sturtii var. aff. platychlamys	omitted							
309	Hibiscus sturtii var. platychlamys (MET 15067)	omitted							
309	Keraudrenia? nephrosperma	Keraudrenia nephrosperma							
309	Keraudrenia sp.	Keraudrenia velutina subsp. elliptica							
309	Melhania sp.	omitted							
309	Melhania sp. Burrup	Melhania sp. (Burrup)							
507	1.10mama op. Darrap	manu sp. (Durrup)							

	N/A	1, ,						
200	NAME	lookup						
309	Sida ? cardiophylla (juvenile)	omitted						
309	Sida ? echinocarpa	omitted						
309	Sida ? rohlenae	omitted						
309	Sida aff. cardiophylla	omitted						
309	Sida aff. clementii	omitted						
309	Sida aff. fibulifera	omitted						
309	Sida aff. fibulifera (FMG 125-20)	omitted						
309	Sida aff. pilbarensis (EOB46-01B)	Sida aff. pilbarensis (EOB46-01B)						
309	Sida aff. spiciforme panicles (FML46-13)	Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)						
309	Sida pilbarensis (ferruginous form)	Sida sp. Pilbara (A.A. Mitchell PRP 1543)						
309	Sida sp.	omitted						
309	Sida sp. (inadequate material)	omitted						
309	Sida sp. (site 625)	Sida aff. fibulifera (FMG 125-20)						
309	Sida sp. (WPI, CR16-27)	omitted						
309	Sida sp. B Kimberley Flora (A.A. Mitchell 2745)	omitted						
309	Sida sp. Pilbara (A.A. Mitchell PRP 1543)	Sida sp. Pilbara (A.A. Mitchell PRP 1543)						
309	Sida sp. Pilbara (ferruginous form)	Sida sp. Pilbara (A.A. Mitchell PRP 1543)						
309	Sida sp. 'rugose'	Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)						
309	Sida sp. Supplejack Station	Sida sp. Supplejack Station (T.S. Henshall 2345)						
309	Triumfetta ? centralis	omitted						
309	Triumfetta aff. chaetocarpa	omitted						
309	Triumfetta appendiculata (Burrup Form)	Triumfetta appendiculata						
309	Triumfetta appendiculata (Mardie form)	Triumfetta appendiculata						
309	Triumfetta appendiculata (Red Hill form)	Triumfetta appendiculata						
309	Triumfetta cf. propinqua (B13-13)	omitted						
309	Triumfetta sp.	omitted						
309	Triumfetta sp. (inadequate material)	omitted						
330	Cadaba capparoides	omitted						
330	Capparis spinosa	Capparis spinosa var. nummularia						
331	Cleome uncifera	Cleome uncifera subsp. uncifera						
332	Lepidium sp.	omitted						
332	Stenopetalum sp.	omitted						
338	?Santalum sp.	Santalum lanceolatum						
338	Santalum sp.	Santalum lanceolatum omitted						
339	Amyema sp.							
355	Polycarpaea corymbosa	Polycarpaea corymbosa var. corymbosa Polycarpaea longiflora						
355 355	Polycarpaea longiflora (pale form) Polycarpaea longiflora (red form)	, 1 č						
355		Polycarpaea longiflora Polycarpaea longiflora						
355	Polycarpaea longiflora (White form, M13-7) Polycarpaea sp.	omitted						
357	? Gomphrena sp.	omitted						
357	Alternanthera sp. (inadequate material)	omitted						
357	Amaranthus ? interruptus	Amaranthus interruptus						
357	Amaranthus cf. pallidiflorus (1)	omitted						
357	Amaranthus sp.	omitted						
357	Amaranthus sp. (inadequate material)	omitted						
357	Gomphrena canescens	Gomphrena canescens subsp. canescens						
357	Gomphrena sp.	omitted						
357	Gomphrena sp. (inadequate material)	omitted						
357	Ptilotus aff. obovatus	Ptilotus obovatus						
357	Ptilotus exaltatus	Ptilotus exaltatus var. exaltatus						
357	Ptilotus gomphrenoides	Ptilotus gomphrenoides var. gomphrenoides						
357	Ptilotus obovatus var. obovatus	Ptilotus obovatus						
357	Ptilotus schwartzii	Ptilotus schwartzii var. schwartzii						
357	Ptilotus sp.	omitted						
357	Ptilotus sp. (inadequate material)	omitted						
357	Ptilotus sp. (WPI, CP50-23)	omitted						

Arriplex sp. comitted omitted y popularia rhadinostachya by popularia rhadinostachya subsp. phadinostachya subsp. subsp. phadinostachya subsp. subsp. phadinostachya subsp. subsp. subsp. subs		NAME	1								
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Dysphania rhadinostachya subsp. inflata Dysphania rhadinostachya subsp. rhadinostachya Sassa Enchylaena tomentosa Enchylaena tomentosa Enchylaena tomentosa Enchylaena tomentosa Sassa Enchylaena tomentosa Maireana georgei Omitted Omitted Omitted Sassa Sassa Enchylaena tomentosa Xassa Maireana georgei Omitted											
Dysphania sp.											
Enchylaena tomentosa Enchylaena tomentosa x Omitted			7 1 7								
Sass Enchylaena tomentosa x											
Enchylaena tomentosa x Maircana georgei mitted											
Halosarcia? pergranulata Tecticornia pergranulata subsp. elongata											
Halosarcia ? ptergranulata Tecticornia pergranulata subsp. elongata											
Halosarcia y pterigosperma Tecticornia pterygosperma subsp. denticulata			Tecticornia halocnemoides								
Maireana aff, georgei Maireana georgei Maireana georgei		Halosarcia? pergranulata									
358 Maireana aff, georgei Maireana luchmannii 358 Maireana palarifolia x Maireana planifolia x villosa 358 Maireana planifolia x Maireana planifolia x villosa 358 Maireana planifolia x Maireana planifolia x villosa 358 Maireana sp. omitted 358 Salsola kali Salsola tragus 358 Salsola tragus subsp. grandiflora Salsola tragus 358 Salsola tragus subsp. grandiflora Salsola tragus 358 Sclerolaena aff. densiflora Sclerolaena densiflora 358 Sclerolaena aff. densiflora Sclerolaena densiflora 358 Sclerolaena app. (inadequate material) omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia halocnemoides subsp. catenulata Tecticornia pergranulata 358 Tecticornia pergranulata Tecticornia pergranulata 361 Trianthema sp. omitted 362 Trianthema sp. omitted	358	Halosarcia? pterigosperma	Tecticornia pterygosperma subsp. denticulata								
358 Maireana planifolia x Maireana planifolia x villosa 358 Maireana planifolia x Maireana planifolia x villosa 358 Maireana tomentosa Maireana tomentosa subsp. tomentosa 358 Salsola kali Salsola tragus 358 Salsola tragus subsp. grandiflora Salsola tragus 358 Salsola tragus subsp. tragus Salsola tragus 358 Sclerolaena blocornis Sclerolaena densiflora 358 Sclerolaena bescritoola Sclerolaena blocornis 358 Sclerolaena sp. (inadequate material) omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia halocnemoides subsp. tenuis Tecticornia pergranulata subsp. elongata 361 Trainthema sp. omitted 362 Tecticornia pergranulata Tectico	358	Halosarcia sp.									
358 Maireana planifolia x Maireana planifolia x villosa 358 Maireana planifolia x Maireana planifolia x villosa 358 Maireana tomentosa Maireana tomentosa subsp. tomentosa 358 Salsola kali Salsola tragus 358 Salsola tragus subsp. grandiflora Salsola tragus 358 Salsola tragus subsp. tragus Salsola tragus 358 Sclerolaena blocornis Sclerolaena densiflora 358 Sclerolaena bescritoola Sclerolaena blocornis 358 Sclerolaena sp. (inadequate material) omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia halocnemoides subsp. tenuis Tecticornia pergranulata subsp. elongata 361 Trainthema sp. omitted 362 Tecticornia pergranulata Tectico	358	Maireana aff. georgei	Maireana georgei								
Maireana sp.	358	Maireana aff. luehmannii									
358 Maireana tomentosa Maireana tomentosa 358 Salsola kali Salsola tragus 358 Salsola tragus subsp. grandiflora Salsola tragus 358 Salsola tragus subsp. tragus Salsola tragus 358 Salsola tragus Salsola tragus 358 Sclerolaena aff. densiflora Sclerolaena densiflora 358 Sclerolaena bicornis Sclerolaena densiflora 358 Sclerolaena sp. omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia halocnemoides subsp. catenulata Tecticornia pergranulata subsp. elongata 358 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 361 Tecticornia pergranulata subsp. galericulata Zaleya galericulata 362 Tecticornia pergranulata subsp. galericulata Zaleya galericulata 363 Boerhavia aff. coccinea Boerhavia coccinea 364 Zaleya galericulata subsp. galericulata Zaleya galericulata 367 Boerhavia	358	Maireana planifolia x	Maireana planifolia x villosa								
358 Maireana tomentosa Maireana tomentosa 358 Salsola kali Salsola tragus 358 Salsola tragus subsp. grandiflora Salsola tragus 358 Salsola tragus subsp. tragus Salsola tragus 358 Sclerolaena fi. densiflora Sclerolaena densiflora 358 Sclerolaena bicornis Sclerolaena densiflora 358 Sclerolaena ps. omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia halocnemoides subsp. tenuis Tecticornia halocnemoides 358 Tecticornia pergranulata Tecticornia pergranulata subsp. clongata 361 Tecticornia pergranulata subsp. galericulata Zaleya galericulata 362 Tecticornia pergranulata subsp. galericulata Zaleya galericulata 363 Boerhavia aff. coccinea Boerhavia coccinea 364 Zaleya galericulata Zaleya galericulata 367 Boerhavia oscinea <td< td=""><td>358</td><td>Maireana sp.</td><td>omitted</td></td<>	358	Maireana sp.	omitted								
358 Salsola tragus subsp. grandiflora Salsola tragus 358 Salsola tragus subsp. tragus Salsola tragus 358 Salsola tragus Salsola tragus 358 Sclerolaena aff. densiflora Sclerolaena densiflora 358 Sclerolaena bicornis Sclerolaena densiflora 358 Sclerolaena sp. omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia pergranulata Tecticornia halocnemoides 367 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 368 Terticornia pergranulata Tecticornia pergranulata 369 Tectinathema sp. omitted 360 Terhavia coccinea Boerhavia coccinea 361 Boerhavia coccinea Boerhavia coccinea	358		Maireana tomentosa subsp. tomentosa								
358 Salsola tragus subsp. grandiflora Salsola tragus 358 Selerolaena aff. densiflora Sclerolaena densiflora 358 Selerolaena deserticola Sclerolaena densiflora 358 Selerolaena deserticola Sclerolaena densiflora 358 Selerolaena sp. omitted 358 Selerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia halocnemoides subsp. tenuis Tecticornia halocnemoides 358 Tecticornia halocnemoides Tecticornia pergranulata subsp. elongata 367 Tecticornia pergranulata subsp. elongata Tecticornia pergranulata subsp. elongata 364 Zaleya galericulata Zaleya galericulata 367 Boerhavia aff. coccinea Boerhavia coccinea 368 Boerhavia sp. Boerhavia coccinea <td></td> <td></td> <td></td>											
358 Salsola tragus subsp. tragus Salsola tragus 358 Sclerolaena aff. densiflora Sclerolaena densiflora 358 Sclerolaena aff. densiflora Sclerolaena bicornis var. bicornis 358 Sclerolaena sp. omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia pergranulata Tecticornia halocnemoides 358 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 364 Trianthema sp. omitted 364 Trianthema sp. omitted 367 Boerhavia aff. coccinea Boerhavia coccinea 367 Boerhavia aff. coccinea Boerhavia coccinea 367 Boerhavia sp. Boerhavia coccinea 367 Boerhavia sp. Boerhavia coccinea 367 Boerhavia type 1 Boerhavia coccinea 367 Boerhavia type 2 Boerhavia coccinea 368 Tecticornia pergranulata calandrinia quadrivalvis 369 Boerhavia											
358 Sclerolaena aff. densiflora Sclerolaena densiflora 358 Sclerolaena bicornis Sclerolaena densiflora 358 Sclerolaena deserticola Sclerolaena densiflora 358 Sclerolaena sp. omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia halocnemoides subsp. tenuis Tecticornia halocnemoides 358 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 360 Tecticornia pergranulata omitted 361 Trianthema sp. omitted 362 Zaleya galericulata Zaleya galericulata 363 Boerhavia aff. coccinea Boerhavia coccinea 364 Zaleya galericulata Zaleya galericulata 367 Boerhavia aff. coccinea Boerhavia coccinea 367 Boerhavia sp. Boerhavia coccinea 367 Boerhavia type 1 Boerhavia coccinea 368 Boerhavia type 1 Boerhavia coccinea 369 Boe											
358 Sclerolaena deserticola Sclerolaena densiflora 358 Sclerolaena deserticola Sclerolaena densiflora 358 Sclerolaena sp. omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 364 Trianthema sp. omitted 364 Zaleya galericulata subsp. galericulata Zaleya galericulata 367 Boerhavia aff. coccinea Boerhavia coccinea 367 Boerhavia aff. coccinea Boerhavia coccinea 367 Boerhavia sp. Boerhavia coccinea 367 Boerhavia sp. (B82-6) Boerhavia coccinea 367 Boerhavia type 1 Boerhavia coccinea 368 Calandrinia ? quadrivalvis Calandrinia quadrivalvis 374 Calandrinia ? quadrivalvis Calandrinia quadrivalvis 374 Calandrinia ? quadrivalvis Calandrinia quadrivalvis 374 Calandrinia ? quadrivalvis Calandrinia quadrivalvis											
358 Sclerolaena sp. omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. catenulata Tecticornia halocnemoides 358 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 358 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 358 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 358 Tecticornia pergranulata subsp. elongata Tecticornia pergranulata subsp. elongata 364 Trianthema sp. omitted 364 Zaleya galericulata Zaleya galericulata 367 Boerhavia aff. coccinea Boerhavia coccinea 367 Boerhavia sp. Boerhavia coccinea 367 Boerhavia sp. Boerhavia coccinea 367 Boerhavia type 1 Boerhavia coccinea 368 Boerhavia type 1 Boerhavia coccinea 374 Calandrinia ? stagnensis Calandrinia quadrivalvis 374 Calandrinia ? stagnensis Calandrinia stag											
358 Sclerolaena sp. (inadequate material) omitted 358 Sclerolaena sp. (inadequate material) omitted 358 Tecticornia halocnemoides subsp. tenuis Tecticornia halocnemoides 358 Tecticornia pergranulata Tecticornia pergranulata subsp. elongata 364 Zaleya galericulata subsp. galericulata Zaleya galericulata 367 Boerhavia aff. coccinea Boerhavia coccinea 367 Boerhavia sp. Boerhavia coccinea 367 Boerhavia type 1 Boerhavia coccinea 367 Boerhavia type 2 Boerhavia coccinea 374 Calandrinia ? tagnensis Calandrinia quadrivalvis 374 Calandrinia ? tagnensis Calandrinia stagnensis 374 Portulaca cyclophylla Portulaca conspicua 374 Portulaca sp. omitted 409 Oldenlandia sp. omitted 409 Synaptantha tillaeacea											
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415Heliotropium ? pachyphyllumHeliotropium pachyphyllum415Heliotropium sp.omitted415Heliotropium sp. (inadequate material)omitted415Trichodesma zeylanicumTrichodesma zeylanicum var. zeylanicum416Bonamia erectaBonamia rosea416Bonamia mediaomitted416Bonamia media var. villosaBonamia sp. Dampier (A.A. Mitchell PRP 217)											
415Heliotropium sp.omitted415Heliotropium sp. (inadequate material)omitted415Trichodesma zeylanicumTrichodesma zeylanicum var. zeylanicum416Bonamia erectaBonamia rosea416Bonamia mediaomitted416Bonamia media var. villosaBonamia sp. Dampier (A.A. Mitchell PRP 217)											
415Heliotropium sp. (inadequate material)omitted415Trichodesma zeylanicumTrichodesma zeylanicum var. zeylanicum416Bonamia erectaBonamia rosea416Bonamia mediaomitted416Bonamia media var. villosaBonamia sp. Dampier (A.A. Mitchell PRP 217)			1 1 11 1								
415Trichodesma zeylanicumTrichodesma zeylanicum var. zeylanicum416Bonamia erectaBonamia rosea416Bonamia mediaomitted416Bonamia media var. villosaBonamia sp. Dampier (A.A. Mitchell PRP 217)											
416Bonamia erectaBonamia rosea416Bonamia mediaomitted416Bonamia media var. villosaBonamia sp. Dampier (A.A. Mitchell PRP 217)											
416Bonamia mediaomitted416Bonamia media var. villosaBonamia sp. Dampier (A.A. Mitchell PRP 217)		·	· · · · · · · · · · · · · · · · · · ·								
416 Bonamia media var. villosa Bonamia sp. Dampier (A.A. Mitchell PRP 217)											
1 1 1											
416 Bonamia sp. omitted			* *								
	416	Bonamia sp.	omitted								

	NAME	lookup						
416	Bonamia sp. (inadequate material)	omitted						
416	Convolvulus ? clementii	Convolvulus angustissimus subsp. angustissimus						
416	Convolvulus ? remotus	Convolvulus angustissimus subsp. angustissimus						
416	Convolvulus sp.	omitted						
416	Duppereya commixta	Duperreya commixta						
416	Ipomoea sp.	omitted						
416	Polymeria ? lanata	Polymeria lanata						
416	Polymeria aff. ambigua	omitted						
416	Polymeria aff. ambigua (MET 12302)	Polymeria aff. ambigua (MET 12, 302)						
416	Polymeria ambigua/calycina	Polymeria aff. ambigua (PAN 26B-20)						
416	Polymeria sp.	omitted						
417	Nicotiana sp.	omitted						
417	Nicotiana sp. (inadequate material)	omitted						
417	Solanum aff. gabrielae	Solanum gabrielae						
417	Solanum aff. phlomoides	Solanum phlomoides						
417	Solanum sp.	omitted						
417	Solanum sp. (inadequate material)	omitted						
417	Solanum sturtianum (boolgeeda)	Solanum sturtianum						
427	Stemodia sp.	Stemodia grossa						
427	Stemodia sp. (inadequate material)	Stemodia grossa						
428	Eremophila forrestii	Eremophila forrestii subsp. forrestii						
428	Eremophila forrestii x latrobei	omitted						
428	Eremophila fraseri subsp. parva	Eremophila fraseri subsp. fraseri						
428	Eremophila glabra	omitted						
428	Eremophila latrobei	omitted						
428	Eremophila longifolia variant	Eremophila longifolia						
428	Eremophila sp.	omitted						
428 428	Eremophila sp. 1 (poor specimen) Eremophila sp. 2 (sterile)	omitted omitted						
428	Eremophila youngii x latrobei	omitted						
431	Josephinia eugeniae	Josephinia sp. Marandoo (M.E. Trudgen 1554)						
431	Josephinia sp.	Josephinia sp. Marandoo (M.E. Trudgen 1554)						
432	Clerodendrum sp.	Clerodendrum floribundum var. angustifolium						
432	Clerodendrum tomentosum	Clerodendrum tomentosum var. lanceolatum						
433	Peplidium sp.	Peplidium sp. E Evol. Fl. Fauna Arid Aust. (A.S.						
		Weston 12768)						
437	Rostellularia adscendens var. latifolia	Rostellularia adscendens var. clementii						
450	Lobelia arnhemiaca	Lobelia heterophylla						
450	Wahlenbergia queenslandica	Wahlenbergia tumidifructa						
450	Wahlenbergia sp.	Wahlenbergia tumidifructa						
458	Goodenia aff. cusackiana	Goodenia cusackiana						
458	Goodenia aff. microptera	Goodenia microptera						
458	Goodenia aff. muelleriana	Goodenia muelleriana						
458	Goodenia sp.	omitted						
458	Goodenia sp. (inadequate material)	omitted						
458	Goodenia sp. (site 1205)	omitted						
458	Goodenia sp. (site 92)	omitted						
458	Scaevola parvifolia subsp. parvifolia	Scaevola parvifolia						
458	Scaevola parvifolia subsp. pilbarae	Scaevola parvifolia						
458	Scaevola sp.	omitted						
458	Scaevola spinescens	Scaevola spinescens (broad form)						
460	? Ixiolaena sp.	omitted						
460	Brachyscome sp.	omitted						
460	Calotis multicaulis	Calotis plumulifera						
460	Chrysgenhalum aniculatum	Centipeda minima subsp. macrocephala Chrysocephalum aff. apiculatum						
460	Chrysocephalum apiculatum Chrysocephalum sp.	omitted						
460	Flaveria sp.	omitted						
400	Traverra sp.	Ullitted						

	NAME	lookup					
460	Flaveria sp. Tom Price (M.E. Trudgen 11246)	Flaveria australasica subsp. gilgai					
460	Lactuca saligna	Lactuca serriola					
460	Pentalepis aff. trichodesmoides (M.E.Trudgen 15,170)	Pentalepis trichodesmoides					
460	Pluchea sp.	omitted					
460	Pluchea sp. B Kimberley Flora (K.F.	omitted					
	Kenneally 9526A)						
460	Pterocaulon? sphaeranthoides x sphacelatum	Pterocaulon sphaeranthoides					
460	Pterocaulon sp.	omitted					
460	Pterocaulon sp. (inadequate material)	omitted					
460	Pterocaulon sphaeranthoides x sphacelatum	Pterocaulon sphacelatum					
460	Rutidosis helichrysoides	Rutidosis helichrysoides subsp. helichrysoides					
460	Senecio spanomerus	omitted					
460	Streptoglossa sp.	omitted					
460	Streptoglossa sp. (inadequate material)	omitted					
460	Vittadinia sp.	omitted					
460	Vittadinia sp. (HD268)	omitted					
472	Trachymene aff. oleracea (B61)	Trachymene oleracea subsp. oleracea					
472	Trachymene oleracea	Trachymene oleracea subsp. oleracea					
474	Genus sp.	omitted					

Appendix 2 Dendrogram of Classification of NYI sites

N and R on left of site indicates presence in NYI or NYI rail projects.

site	no gp600	gp025 gp0	050 gp100	gp200 data									
				-	0.0182 0.216	0.4142	0.6121	0.8101	1.0081	1.2061	1.4040	1.6020	1.800
N A001	12 314	1	1 1	. 1									
N B067	23 188	1	1 1										
R A118	19 254	1	1 1										
N B001	8 529?	1	1 2										
N B064	9 528?	1	1 2										
N B063	14 196	1	1 2				_						
N A008	26 569?	1	2 3					<u> </u>					
N B069	21 528	1	2 3										
N B070 N B071	14 529 24 282	1 1	2 3				1						
N A012	33 381	1	2 3										
N C042	29 383	1	2 3					<u> </u>					
N B062	39 380	1	2 3										
N B072	39 383	1	2 3					<u> </u>					
N B003	16 528	1	2 4										
N B078	22 569?	1	2 4										
N B004	22 380?	1	2 4					İ					
N B077	15 528?	1	2 4					İ					
N B080	8 249?	1	2 4	11									
R A089	34 127?	2	3 5										
R C082	42 160?	2	3 5							İ			
R C093	39 128	2	3 5	13						İ			
R A090	33 170	2	3 6	5 14									
R A106	46 144?	2	3 6	5 15									
R A095	50 143	2	3 7										
R B133	44 565	2	3 7										
R B131	48 139	2	3 7										
R B139	32 269	2	3 7				_						
R B130	33 54?	2	4 8										
R B135	24 527?	2	4 8										
R B140	34 269?	2	4 8										
R B143	29 71?	2	4 8							1			
R B141	51 163?	2	4 8							1			
R B142 R A093	28 162? 44 20	2 2	4 8 5 9							<u> </u>			
R A098	60 20	2	5 9					I		<u> </u>			
R A100	51 565	2	5 9				<u> </u>			<u> </u>			
R A102	35 565	2	5 9				<u> </u>	<u> </u>					
R A096	43 20?	2	5 9				-1 -						
R A097	36 269?	2	5 9	_			<u> </u>	i		i			
R A103	40 267	2	5 9										
R A104	42 565?	2	5 9					_		İ			
R C084	33 471?	2	5 10					<u>i</u>					
R C085	32 162	2	5 10										
R A094	15 56	3	6 11										
R C080	21 527	3	6 11										
R C081	14 43?	3	6 12										
R B137	23 249?	3	7 13							1			
R B138	23 48?	3	7 13							1			
R B149	25 528	3	7 13					_					
R B152	27 527?	3	7 14					1 1		1			
R C098	36 565?	3	7 14					.					
R A091	16 579?	4	8 15						1	<u> </u>			
R B148	31 569	4	8 16						1	1			
R A107	45 565?	4	9 17					<u> </u>	1	<u> </u>			
R A119	35 310	4	9 17					<u> </u>	1	I			
R A110 R A112	51 565	4	9 17					<u> </u>	<u> </u>	I			
R A112 R A111	54 565 65 568	4	9 17 9 17				_ <u> </u>	I	1	1			
R A111	34 567	4	9 17				<u> — </u>	I I	1	1			
R A117	34 565?	4	9 18				II	<u> </u>	1	1			
R A117	29 40	4	9 18				<u> </u>	<u> </u>	1	<u> </u>			
R C095	43 575	4	9 19							<u> </u>			
R A105	19 527	4	10 20					<u></u>	1	1			

site	no gp600	gn()25 gn()	p050 gp100 gp200 data									
Site	no gpood	18P023 [8P0	30 B	PIOOISI		0.0182 0.2162 0.4142 0.	6121 0.810		1 1.2061	1.4040	1.6020	1.8000
R A109	38 537		10	21	44			_			•	
R A092 R A108	30 48 21 47		11	22	45			<u> </u>				
R B181	21 47		11	22	46		<u> </u>	<u> </u>	<u> </u>			
R B182	16 249		11	23	48							
R B144	35 20		12	24	49				İ			
R B147	34 144		12	24	49							
R B178 R C089	25 247 33 362		12 12	24	49 50			<u> </u>	<u> </u>			
R C092	33 564		12	24	50			<u> </u>				
R C091	39 565		12	24	51		_		İ			
R B179	30 139?		12	25	52							
R B180	33 276?		12	25	53			<u> </u>	<u> </u>			
R A116 R A121	38 310 27 301?		13	26	54 55			<u> </u>	<u> </u>			
R C125	22 314		13	26	56							
R C124	20 194?		13	26	57		_	İ	İ			
R B132	17 259		13	27	58							
N A019 N A020	6 425?? 9 485??		14 14	28	59 60							
R B168	8 190??		15	30	61							
R B169	15 550?		15	30	62				i			
R A099	24 460?		16	31	63							
R A101 R C083	28 473? 30 473?		16 17	31 32	63 64							
R C086	20 470		17	32	65							
N A047	31 575		18	33	66		I					
N A048	29 575		18	33	66							
N A053	30 575		18	33	66							
NR B020	18 71? 18 155?		18 18	33	67 67							
N B085	20 384?		18	33	67							
N A070	24 384?		19	34	68				i i			
NR B050	16 147?		19	35	69							
R A125 N B061	9 193? 14 171?		20	36	70							
N B079	25 171?		20	37	71							
N B065	29 301		20	37	72							
R B129	29 148?		21	38	73							
R B145	28 148?		21	38	73							
R B164 R B150	33 547 35 169		21 21	38 39	74 75		l	<u> </u>				
R B134	50 138?		22	40	76							
R B136	39 128	10	22	40	76							
R C090	25 104?	10	22	40	77		1					
R C087	35 83? 43 575?		23	41	78 79		_					
R C088 N A002	43 575?		23 24	41	80		<u> </u>					
N A003	29 383	11	24	42	80							
N C041	38 383	11	24	42	80							
N A007	31 383		24	42	80							
N A006 N C039	36 379 32 577		24 24	42 42	81 81					<u> </u>		
N C040	35 383		24	42	81							
N A004	31 379	11	24	42	82							
N A044	37 379	11	24	42	82							
N A045	34 383 44 383	11	24 24	42 42	82 82							
N A057 N A054	30 567?		24	42	82					<u> </u>		
N A056	36 379		24	42	83							
N A069	32 379	11	24	42	83					İ		
R C110	27 383		24	43	84							
NR A040 NR A041	23 383 32 383		25 25	44 44	85 85		<u> </u>			<u> </u>		
NR A041 N A071	26 383	11	25	44	85		<u> </u>			<u> </u>		
NR A060	36 383	11	25	44	85							
NR A061	28 383	11	25	44	85							
NR A072	22 383	11	25	44	85		_					

	site	no gp60	0 gp	025 2	gp050 g	gp100	gp200						lata				
		Si	- 181	12	51 10	J	GI ·	0.0182 0.2162	0.4142	0.61	21	0.8101	1.0081	1.2061	1.4040	1.6020	1.8000
									1	1		1	I		I	1	
NR	A059	30 383		11	25	44	86			<u> </u>				<u> </u>		<u> </u>	<u> </u>
	A066	31 383		11	25	44	86			İ					İ		
_	B053	24 379		11	25	44	86										
	C019	29 383		11	25	44	86										
	A062 A063	19 383 18 386		11 11	25	44	87 87										
_	C006	22 383		11	25 25	44	87										
	C045	27 383		11	25	44	87					<u> </u>					
	A067	23 383		11	25	44	87		-11	·							
_	C107	24 383		11	25	44	87			i i							
N	C001	36 383		11	25	44	87		_	i		İ					
	C002	40 383		11	25	44	87										
	C005	28 383		11	25	44	87					<u> </u>					
	C044	42 383		11	25	44	87			_							
_	A065 A005	15 383 21 383		11	25 26	44	88 89			_		<u>- </u>					
	A003 A014	17 383		11	26	45	89					<u> </u>					
_	A058	24 383		11	26	45	89										
	B068	17 383?		11	26	45	89				_						
N	A009	32 384		11	26	45	90					i			İ		
N	A015	26 384?		11	26	45	91								İ		
_	B047	29 384		11	26	45	92			_ _ _	l				<u> </u>		
_	B066	16 296?		11	26	46	93				_						
	A010 A011	38 383 35 383		11 11	26 26	47 47	94 94										
_	B060	36 383		11	26	47	94		I		I	<u> </u>					
	B075	14 147?		11	26	47	95										
	B002	32 79?		11	26	47	96				- 						
	B073	27 384?		11	26	47	97				i i	i			İ		
N	B076	41 384		11	26	47	97				İ _				İ		
	A064	8 386?		12	27	48	98										
_	B175	13 383?		12	27	48	98										
	B172	20 254?		12	27	48	98										
	B177 B185	28 577? 20 379?		12 12	27	49 49	99 99						<u> </u>				
	A126	17 383		12	27	50	100										
_	B171	15 383		12	27	50	100										
_	C112	11 383?		12	27	50	101						i		i		
N	B029	8 333?		12	27	51	102								İ		
_	B033	21 383		12	27	51	103										
	C117	15 385		12	27	51				_							
	B046	17 383		12	27	51											
	B049 C014	11 383? 21 385		12 13	27	51 52				.							
	C073	19 385		13	28	52											
	C072	17 385		13	28	52	104						<u>I</u>				
R	C114	13 385		13	28	52	104		_								
	C118	17 385		13	28	52	104										
	C122	15 385		13	28	52	104										
	C119	16 385?		13	28	52	105			_ _							
	C074 A013	32 385		13 14	28	52 53	106			_							
	C021	13 147 11 147?		14	29 29	53	107 107									<u> </u>	
	B031	11 147?		14	29	53			<u> </u>							<u> </u>	
	C020	15 147		14	29	53	107									1	
N	B017	11 393?		14	29	53	107									i	
	B092	8 147		14	29	53	107										
_	C011	17 258?		14	29	53				_							
	A081	16 318?		14	29	53	107			1							
	B018	10 284?		14	29	53	107	<u> </u>		1						<u> </u>	
	B041 A055	13 147? 15 427?		14 14	29 29	53 53				·						<u> </u>	
	B036	10 254		14	29	53										<u> </u>	
	A068	7 131		14	29	53	108	·								<u> </u>	
	B037	6 131		14	29	53	108										
	B086	4 147?		14	29	53										İ	
	A133	5 131		14	29	53											
	A016	9 148?		14	29	54											

site	no gp60	00 0	gp025	gp050 g	gp100	gp200						data					
Site	Spor	- 18	JF 323	JF 300 8	- 100	Sr-200	0.0182 0.2162	0.4142	0.	6121	0.8101	1.0	081	1.2061	1.4040	1.6020	1.8000
								I	1		1						
R A134	18 147		14	29	54	109		·	_					'			
R A130	3 147??		14	30	55	110						_					
N B021	4 131?		15	31	56			-									
N B022	4 131?		15	31	56							1					
NR B023 N B028	5 131? 9 131?		15 15	31	56 56												
NR A017	12 148?		16	32	57			<u> </u>					<u> </u>				
N B081	13 273		16	32	57								İ				
N B084	19 145?		16	32	58	114			· ·				İ			İ	
N B088	16 319?		16	32	58												
R A128	12 282?		16	32	59												
R A131 R A132	18 266? 8 147?		16 16	32	59 59								<u> </u>				
N C032	9 147?		16	32	59								1			<u> </u>	
NR B048	11 273?		16	32	59			- [
NR B083	12 147		16	32	59	116			i_i	i_	_		İ			İ	
R A129	21 424??		16	32	60	117											
NR C009	28 424?		16	32	60												
N C010 N C012	28 428? 21 427?		16 16	32	60						1		<u> </u>				
N C068	21 276?		16	32	60											<u> </u>	
NR C070	22 427?		16	32	60			<u> </u>	<u>i</u> i				i			<u> </u>	
NR C013	14 424??		16	32	60								Ì				
NR C071	35 424?		16	32	60				_								
N B032	12 131?		16	32	60						1		<u> </u>				
N B090 N C026	13 273? 27 575?		16 16	32	60						1		<u> </u>				
N C027	22 425?		16	32	60					<u> </u>			<u> </u>				
NR B043	15 556?		16	32	60					i			i				
R C120	19 273		16	32	60	121				İ	İ		İ			İ	
NR B044	18 276		16	32	60												
NR B045	15 155?		16	32	60			_	_								
NR C069 R C121	22 147? 10 147?		16 16	32	60				-	_	<u> </u>						
N A039	25 141?		16	34	62	123							<u> </u>				
NR A082	29 567?		16	34	62	123							İ				
N A049	12 254??		16	34	62	124							İ				
N B008	23 379		16	34	62	124											
N B015	26 552?		16	34	62	124											
NR C016 N A051	19 425 16 427		16 16	34	62	124 125			_				<u> </u>			<u> </u>	
N B039	16 145		16	34	63												
NR B042	17 148?		16	34	63	125				i			i			i	
N B009	20 431?		16	34	63												
N B010	19 404?		16	34	63												
N B014 N B012	19 600? 13 431?	-	16 16	34	63	126 126		·	<u> </u>				<u> </u>			<u> </u>	
N B012	23 182?		16	34	63	126		I	<u> </u>	<u> </u>	<u> </u>		<u> </u>			<u> </u>	
N B011	21 575?		16	34	63	126										<u> </u>	
N B040	20 145?		16	34	63	126			ii	i			İ				
N A052	18 155?		16	34	63	127				_ _ _							
N A031	11 324?		17	35	64	128											
N B091 N B030	18 276 8 284?	-	17 17	35 35	64 64	128 129							<u> </u>				
N C064	17 273?		17	35	64	129											
N B082	20 379		17	35	64	129							İ			i i	
N C062	20 577		17	35	64	129			<u>_i_i_</u>			İ	İ				
N B074	22 379		17	35	64	130											
N B087	23 424?		17	35	64	130										1	
N B089 N B005	11 145? 31 379?	-	17 17	35 35	64 65	130 131		<u> </u>								<u> </u>	
N B005 N B006	31 379?		17	35	65					<u> </u>		<u> </u>	<u> </u>			<u> </u>	
N B007	32 384		17	35	65												
N B016	38 171?		17	35	65	131							i			<u> </u>	
N B034	24 379		17	35	65	132				İ							
N B035	43 379		17	35	65				_								
N C043	31 383		17	35	65				<u> </u>	_		_					
N A034	10 319?		17	36	66	133						<u> </u>					

	site	no gpo	500	gp02519	gp05019	gp100 ls	gp200				d	lata				
1 1		8		01 15	A 15	4 18	-		0.4142	0.6121	0.8101	1.0081	1.2061	1.4040	1.6020	1.8000
NR A		10 325?	,	17	36	66	134	·		<u> </u>			·			•
N A		20 384 22 123?	,	17	36	67	135									
N A		16 145?		17 17	36 36	67	136 137			l						
N A		22 425?		18	37	68	138							 		
N B		25 508?		18	37	69	139									
N C		27 425?	,	18	37	69	139				1			1		
N CO		37 425 23 404?	99	18 18	37 37	69 69	139 139		_		<u> </u>			<u> </u>		
N B		25 406?		18	37	69	140				1			<u> </u>		
N C		19 424?		18	37	69	141			_	- İ			<u> </u>	İ	
N A		18 404?		18	38	70	142									
N B		19 404? 17 404?		18 18	38 38	70 70	143 143			1				<u> </u> 	<u> </u>	
N B		22 404?		18	38	70	143									
N B	107	18 3973	,	18	38	70	143			_	İ					
N B		8 3973		18	38	70	144									
N B		24 404? 15 430?		18 18	38 38	71	145 146							<u> </u>		
N BO		21 404	•	18	38	72	146			<u> </u>	<u> </u>			<u> </u>		
R C	104	14 242?		18	38	72	147							<u> </u>	<u> </u>	
N B		15 425?		18	38	73	148		_							
N BO		19 404? 13 414?		18	38	73 73	148 148							<u> </u> 	<u> </u>	
N C		26 404?		18	38	73	148	<u> </u>	<u> — </u>					<u> </u> 	<u> </u>	
N B		20 424?		19	39	74	149		I							
N B		25 430		19	39	74	149	I								
N B		28 424		19	39	74	149							1		
N B		28 425? 25 430?		19 19	39 39	74 74	149 150	I						<u> </u>		
N B		25 430?		19	39	74	150			1				<u> </u>		
N B		25 430?		19	39	74	150	·		İ		İ		<u> </u>	İ	
NB		23 430?		19	39	74	150			1						
N B		24 430? 59 435?		19 19	39 39	74 75	150 151			_				<u> </u>	1	
N C		35 425?		19	39	75	152			- <u> </u> 				<u> </u>		
N C		35 430		19	39	75	152					İ				
N C		25 430		19	39	75	152		_ _							
N A		24 425 31 425?	,	20	40	76 76	153 153		<u> </u>					<u> </u>	1	
N A		18 425?		20	40	76	153		_							
NR A		15 276?		20	40	76	153									
N A		20 145?	,	20	40	76	153		_ _	_						
N A		29 427 18 5527	,	20	40	76	154			_	_			<u> </u> 		
N A		23 552?		20	40	77	155 155						<u> </u>	<u> </u>		
N A	.078	20 552?		20	40	77	155						<u> </u>		<u> </u>	
N A		24 552		20	40	77	155									
NR C		39 433 23 425?)	20	40	77 77	156 156		<u> </u>	<u> </u>			<u> </u>	<u> </u> 	<u> </u>	
N A		19 425?		20	40	77	157		_	I				<u> </u>		
N C		19 425?	,	20	40	77	157								<u> </u>	
N A	.073	14 425?	,	20	40	77	157									
N A		34 404?	,	20	41	78	158				<u> </u>		<u> </u>	<u> </u>	<u> </u>	
N A		29 425 24 437?	,	20	41	78 79	158 159				<u> </u>		<u> </u>	<u> </u> 	I	
NR A		32 552?		20	41	80	160			<u> </u>						
NR A	.043	33 404?	,	20	41	80	160				İ		İ		i	
N A		29 433?	•	20	41	80	161			_				<u> </u>		
N A		29 425 35 430		20	41	80 80	162 162			<u> </u>			<u> </u>	<u> </u>		
RA		44 433?	,	21	42	81	163			I I -			<u> </u>	<u> </u>		
R A	.115	50 450		21	42	81	163					<u> </u>				
R C		37 456?		21	42	81	164									
R C		36 4507 41 450	,	21	42 42	81 81	164			<u> </u>		<u> </u>	<u> </u>	<u> </u> 	<u> </u>	
R CO		27 433?	,	21	42	81	164 165		_ -			1	<u> </u>	<u> </u> 	I	
	154	39 433?		21	42	82	165					İ	1	<u>.</u> 	1	

	site	no gp600	gp025	on()5()	on100	on200			d	ata				
	3110	по дробо	[5P023]	5P030	5P100		0.0182 0.2162 0.4142	0.6121	0.8101	1.0081	1.2061	1.4040	1.6020	1.8000
		1	-											
R	B155	27 404??	21	42		165				<u> </u>				
R	B157	27 398?	21	43	83	166								
	C100	36 427	21	43		167		.						
	C101 C099	40 567 22 398?	21	43		167 168				<u> </u>	 			
	A029	28 404?	22	43	85	169			_	<u> </u>				
_	A037	44 435	22	44	85	169								
	A038	30 425?	22	44		169	·			İ	İ			
	A077	20 425?	22	44	85	169								
	C022	38 427	22	44	85	170								
	C067 C034	49 426? 50 426	22	44	85 85	170 170					1		1	
	C061	45 404?	22	44		170				<u> </u>				
	C063	43 404	22	44	85	170		i			İ			
N	C048	52 404	22	44	85	170								
	C023	33 567?	22	44		170								
	C030	35 567	22	44	85	170	· ·						1	
	C033 C053	33 425 29 425?	22	44	85 85	170 170				I	I		 	
	B183	26 244?	22	45		171								
	C123	22 427?	22	45		171				<u> </u>			1	
	C102	20 404?	22	45	86	172				İ	İ			
	C024	21 425	22	45	87	173								
	C056	19 398?	22	45	87	173							1	
	C055 C029	15 425? 21 425?	22	45 45	87 87	173 174			<u> </u>	<u> </u>			1	
	C029	29 425	22	45	87	174								
	C058	21 425?	22	45		174			1	1				
N	C028	34 427	22	45		175			İ					
	C031	20 425?	22	45		175	·							
	B038	31 379?	23	46		176							1	
	B151 C003	38 568? 41 577	23	46 46		177 178				1			1	
	C003	36 379	23	46		178		<u> </u>	<u> </u>	<u> </u>			<u> </u>	
	C007	55 379	23	46		178		<u> </u>		1				
	C008	41 428	23	46		178	·							
	C047	46 428	23	46		178								
	C036	41 428	23	46		178								
	C038 C046	43 423 39 423	23	46		178 178		 		<u> </u>			1	
	C046	38 577	23	46		178		_						
	B109	30 428?	23	46		179		.11	<u></u>					
	B124	34 427?	23	46		179			İ	İ				
	B112	24 567?	23	46		179				<u> </u>				
	B122	34 404	23	46		179								
	B110 B111	37 428? 27 404?	23	46 46		180 180		<u> </u>		<u> </u>	1		1	
	B116	41 404?	23	46		180				<u> </u>				
	B113	29 425?	23	46		180			 	İ			İ	
N	B114	32 404	23	46	90	180		İ						
	B115	32 425	23	46		180				1				
	B125	33 427 29 428	23	46		180		.	<u> </u>	<u> </u>	1		1	
	B119 B120	30 428	23	46 46		180 180								
	B123	25 425?	23	46		180				<u> </u>				
	B117	30 424?	23	46		181			<u> </u>	İ			1	
N	B118	29 404?	23	46	90	181			<u> </u>					
	B121	24 425	23	46		181			I					
	B051	36 384?	23	47		182								
	C015 C075	24 265?	23	47	91 91	183		<u> </u>		<u> </u>	1		1	
	B052	27 379? 39 577	23	47 47	91	183 184		<u> </u>	<u> </u>	<u> </u>	1	<u> </u>	<u> </u>	
	C018	53 577	23	47		184								
N	B054	13 424?	23	47		185				i	i		i	
N	B093	26 424?	23	47	92	186		_	ii					
	B058	28 424	23	47	92	187			<u> </u>					
	B059 C111	29 141?	23	47	92	187							1	
	ILLI I	20 577?	23	47	93	188					1		1	

site	no gp600	gp025 gp05	50 gp	100 g	p200				da	ta				
					0.0182	0.2162	0.4142	0.6121	0.8101	1.0081	1.2061	1.4040	1.6020	1.8000
R C115	13 427?	23 4	47	93	188					.				
R A122	24 427	24 4	48	94	189									
R A127	31 427	24 4	48	94	189									
R C116	30 577	24 4	48	94	189									
R C108	23 427	24 4	48	94	189									
R A124	25 427	24 4	48	94	190									
R C113	27 427	24 4	48	94	190									
R C105	20 577?	24 4	48	94	191									
R C106	20 577	24 4	48	94	191									
R C109	16 577?	24 4	48	94	191									
R A123	20 308	24 4	48	95	192									
R B173	32 577	24 4	48	95	193									
R B174	29 577	24 4	48	95	193		_							
R B176	18 556	24 4	48	95	193									
R B170	25 577?	24 4	48	96	194									
R B184	27 404?	24 4	48	96	195									
R B146	15 427?	24 4	49	97	196						_			
R B158	29 486?	25 5	50	98	197				_					
R B159	8 487??	25 5	50	99	198									
R B162	14 484??	25 5	50	99	198									
R B161	11 487?	25 5	50	99	198									
R B160	6 484?	25 5	50	99	198									
R B165	10 487?	25 5	50	99	198									
R B166	9 486?	25 5	50	99	198									
R B163	5 486??			100	199									
R B167	9 484??	25	50	100	200			_	.					
					0.0182	0.2162	0.4142	0.6121	0.8101	1.0081	1.2061	1.4040	1.6020	1.8000

Appendix 3 Extract of Dendrogram of NYI sites with Regional Reference sites

Grey row indicate where rows have been deleted.

site	PROJ	spp 50 10	00 200 40	00 600 nnb		0.0450	0.4056	0 5422	0.0011	1 0200	1 4065	1 5244	1 0000	VEGETATION	HABITAT
					0.0000	0.2478	0.4956	0.7433	0.9911	1.2389	1.4867	1.7344	1.9822		
1022	WAMTROD	7 45 6	9 177 35	2 521								1		Associate of the second of the	Plain = site 1230.
1232	WAMTROB								<u> </u>	<u> </u>		<u> </u>		Acacia aff. catenulata. low closed forest. Tall Open Scrub of Acacia aff. aneura (narrow fine	
INV018	EP00550AA	11 45 8							<u> </u>	<u> </u>		1		1	flat plain
RAIL015		18 35 7								<u> </u>				Tall Open Shrubland of Hakea lorea subsp. lorea to 5m	Valley floor, relatively flat, crabholes
CP510	WPI	12 14 3	8 79 14											Acacia xiphophylla scattered tall shrubs over A. bivenosa	Horeshoe flats
NYIC121		10		147						<u> </u>				. Upper: 1000 cm, 5 %. Mid: 350 cm, 2 %. Lower: 100	Topography: flat ,
NYIA034		10		319						<u> </u>				hummock grassland of trodia epacta with isolated shrubs.	Topography: flat ,
NYIA080		8		325	?									open shrubland of acacia synchronicia over tussock	Topography: flat ,
NYIA046		19		384										hummock grassland of trodia epacta with isolated	Topography: flat,
NYIA050		21		123				.						hummock grassland of triodia epacta with isolated acacia	Topography: flat,
NYIC065	NYI	16		145										. Upper: 900 cm, 5 %. Mid: 400 cm, 10 %. Lower: 130	Topography: 743101,
226	WAHAMSTN	21 26 71	149.20	2 442						1 1		1		Eucalyptus victrix scattered low trees over Acacia	Well defined flow line through plain,
0226												<u> </u>		Eucalyptus victrix scattered low trees over Acacia	0 1
H049	HDRAIL	11 36 71										1			Drainage area in clayey plain.
1197		14 36 71		-										Eucalyptus victrix open forest over Eriachne flaccida and	Temporary pool at the end of a low
1199	WAMTROB	22 36 71												Eucalyptus victrix scattered low trees over Acacia aneura	Near edge of large claypan.
1204	WAMTROB	14 36 71		-										Eucalyptus victrix open woodland over Acacia	Plain.
DAMF20		15 32 65												Low open to closed heath of the halophytic species	Saline clay basin.
DAMF22		20 32 65							_					Open heath of Aeschynomene indica over a closed	Clay plain (cracking red clay, deep) at
1216	WAMTROB	6 36 71	149 29	4 447										Eucalyptus victrix, Acacia aneura var. longicarpa low	Very shallow depression in plain.
NYIA130	NYI	3		147										acacia citrinivirides over cenchrus cilliaris Upper: 600	Topography: ma/c,
A5 Track	FMG-2006	12 4 14	29 58	95					_						
NYIA019	NYI	5		425										tufted grassland of enneapogon polyphyllus with	Topography: slightly undulated small
NYIA020		8		485				_	_ _					shrubland of acacia synchronicia over tufted grassland of	Topography: mostly flat with some 1
NYIB168	NYI	8		190										melaluca. Upper: 0 cm, 0 %. Mid: 120 cm, 4 %. Lower:	Topography: flat,
NYIB169	NYI	15		550					_					low melaluca shrubs over triodia. Upper: 0 cm, 0 %. Mid:	Topography: flat,
-															W. I. C. i. I. I. I.
	FMG-2006	12 45 91												Acacia aneuraand Acacia pruinocarpa Low Woodland	Westerly facing lower slope, gentle to
	2490	27 45 91	180 35											Eucalyptus leucophloia scattered low trees over Acacia	Plain
NYIA109		34		537										tall shrubland of acacia blue over petalastylis labechiodes	Topography: flat ,
	2491	23 45 91												Eucalyptus leucophloia low open woodland over Acacia	Small to medium sized creek between
FML55	2491	25 45 91					_							Acacia ayersiana, A. paraneura low woodland over	Narrow irregular flowline between lov
	2491	15 22 48	105 20	6 316										Eucalyptus leucophloia scattered low trees over Acacia	Flowline along base of low hill / ridge
NYIB146	NYI	14		427										mulga. Upper: 1000 cm, 25 %. Mid: 0 cm, 0 %. Lower:	Topography: flat,
1064	WAFCBOR	15 34 68	142.29	2 422					1 1		1	1		Eucalyptus camaldulensis var. obtusa open woodland over	Divor had
FMR40	2491	31 34 68							1 1		1	1		Eucalyptus victrix open woodland over Acacia coriacea	creek bed; seasonal water flow
		34 00	143 20	127					1 1		<u> </u>	<u> </u>		woodland victrix over open shrubland of acacia creek	Topography: ma/c,
NYIA089		-						<u> </u>	1 1		1	<u> </u>		. Upper: 600 cm, 1 %. Mid: 190 cm, 25 %. Lower: 35 cm,	1 5 1 7
NYIC082		41		160							1			. Upper: 900 cm, 15 %. Mid: 150 cm, 1 %. Lower: 50 cm,	Topography: mi/c, Topography: ma/c, slope: 0
NYIC093		38		128					1 1		1	1			
NYIC087		34		83										. Upper: 950 cm, 3 %. Mid: 250 cm, 5 %. Lower: 60 cm,	Topography: mi/c, slope: 0
NYIC088	NYI	43		575				_ _						. Upper: 800 cm, 3 %. Mid: 400 cm, 1 %. Lower: 60 cm,	Topography: mi/c, slope: 0
H211	HDRAIL	44 7 22	43 82	127				1 1 1	1 1		1	1		Cullen leucanthum closed scrub over Tephrosia rosea var.	Floodplain within broad river bed.
H213	HDRAIL		43 82						<u> </u>		<u> </u>	<u> </u>		Eucalyptus camaldulensis open woodland over Acacia	Banks of multiple channel flowline,
NYIB134		48 7 22	. -1 3 02	138					<u> </u>		1	1		. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %. Lower: 0 cm, 0 %.	Topography: ma/c,
NYIB136		37		128			_ I	1111	<u> </u>		1			eucalyptus victrix over acacia citri long over acacia 1 vein	Topography: ma/c,
NYIC090		25		104					<u> </u>		<u> </u>	<u> </u>		. Upper: 1100 cm, 15 %. Mid: 450 cm, 10 %. Lower: 90	Topography: mi/c m/s, slope: 0
V11C090	NII	23		104					-					. Opper. 1100 cm, 13 /0. Mid. 430 cm, 10 /0. Edwer. 90	Topography. Int/c III/s, stope. 0
FMG38	2490	41 45 93	185 36	66 547					1 1		1	I		Acacia sclerosperma, Melaleuca glomerata scattered	Stony plain
NYIB164		31		547					ii		Ì	İ		open acacia shrubland over triodia. Upper: 0 cm, 0 %.	Topography: flat,
FMG60		23 45 93	185 36								1	İ		Corchorus sidoides subsp. sidoides low shrubland over	Low rise on a broad plain.
NYIB129		28	- 50 50	148							1	Ī		acacia pruinocarpa over grass. Upper: 0 cm, 0 %. Mid:	Topography: hilltop,
NYIB145		27		148										acacia bivenosa field. Upper: 0 cm, 0 %. Mid: 150 cm, 80	Topography: mi/c,
											·	·			
4D A II 016	550AA	31 32 63	132 26	62 401				.						Tall Open Scrub of Acacia xiphophylla to 4m over	Very gently sloping south-west
+KAILUI C		1												1	T 1 1 1 1 1
FMG-KF	2490	32 32 63	132 26	2 401										Acacia xiphophylla open scrub over Senna spp. low open	Low rocky rises amongst cracking clay

site	PROJ	spp	50 100	200 400 6	00 nn	data									VEGETATION	HABITAT
						0.0000 0.2478	0.49	956	0.7433	0.9911	1.2389	1.4867	1.7344	1.9822		
MG20f	2490	13	38 76	156 311 4	72										Mixed herbland	Mildly sloping plain of crabholes in
YIC083	NYI	26			47	3									?PEC cracking clay on hilltop . Upper: 0 cm, 0 %. Mid:	Topography: flat,
YIC086	NYI	19			47)		_							. Upper: 0 cm, 0 %. Mid: 250 cm, 1 %. Lower: 60 cm, 30	Topography: flat,
1G59	2490	29	38 76	157 312 4	73										Vigna sp. Central (M.E. Trudgen 1626), Kennedia sp.	Clayey upland area (W-facing)
1G71	2490	33	38 76	157 312 4	73										Astrebla pectinata, A. elymoides open tussock grassland	Cracking clay plain - gentle slope
269	HDRAIL	28	38 76	157 312 4	73		_		ii.			ĺ			Mosaic: Acacia victoriae scattered tall shrubs over	Cracking clay on low rise.
284	HDRAIL	37	38 76	157 312 4	73			i		İ	<u> </u>	İ	İ		Sida aff. fibulifera scattered low shrubs over Aristida	Cracking clay.
.94	HDRAIL	28	38 76	157 312 4	74				T ii	İ		İ	İ		Acacia victoriae high shrubland over Cassia oligophylla	Cracking clay on hill crest.
30	HDRAIL			157 312 4					i ii	İ		İ	İ		Acacia victoriae open shrubland over Cassia oligophylla	Cracking clay in broad valley.
	HDRAIL			157 312 4					_iii	i		i	i		Triodia wiseana mid-dense hummock grassland	Hill crest.
TA099		23			46)				i	İ	i	i		tussock grassland of eriachne ciliata and aristida	Topography: broad ridge, slope: 3,
TA101		27			47						l	İ			tussock grassland of eriachne ciliata and aristida	Topography: broad ridge,
51	WAMTROB	17	10 29	57 109 1	69						I		1		Corymbia hamersleyana low open woodland over	Bed of a moderate sized creek.
	FMG-2006			57 109 10							I				Corymbia ?hamersleyana scattered Low trees over	Small to moderate creek between lov
IB150		33	10 2)	5, 10, 10	16)		-ı—			<u> </u>		1		mixed acacia shrubland over peas and grass. Upper: 800	Topography: floodplain,
1150	INTI	33			10				_		· ·				mixed acada sin dotand over peas and grass. Opper. 600	Topography. Hoodplani,
15	HDRAIL	25	8 26	53 99 1	55										Eucalyptus victrix scattered trees to open woodland over	Floodplain/flats of creek channels ar
TA070		23			38	1?		_	İ	I	<u> </u>	i			shrubland of acacia pyrifolia and acacia tumida with	Topography: mic,
TB050		15			14				i_	İ		i			Cenchrus ciliaris grasslands with emergent corymbia	Topography: minor creekline, slope:
R117			8 25	51 97 1:						İ		ii	İ			Creekline
	WPI			51 97 1:					- i	İ		i	i		Acacia ancistrocarpa shrubland over Triodia epactia	Alluvial plain on edge of wide river
	WPI	_		51 97 1:					 		<u> </u>		1		Corymbia hamersleyana low open woodland over Triodia	Alluvial flood plain
TA090		31	0 23	51 77 1	17)					<u> </u>		1		shrubland of acacia worms and acacia creek mini over	Topography: mi/c,
IA106		44			14				11		<u> </u>		1		scattered corymbia hammersleyana over shrubland of	Topography: mi/c,
W001		_	8 24	49 93 14	_	-		-I	11	1	<u> </u>		1		Corymbia hamersleyana and Eucalyptus sp. (WPI,	Major creekline in undulating hills
. W 001	WFI	31	0 24	49 93 1	44						l I		1		Corymola namersteyana and Eucaryptus sp. (W11,	wayor creekine in undulating iiiis
IG16	2490	19	40 81	164 323 4	87										Halosarcia indica subsp. leiostachya, H. halocnemoides	Drainage flats - Fortescue valley
'IB158	NYI	28			48	5									triodia and halosarcia. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %.	Topography: flat,
TB159	NYI	8			48	7									halosarcia heath. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %.	Topography: flat,
IB162	NYI	14			48	1									halosarcia heath. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %.	Topography: flat,
TB161	NYI	11			48	7					1				halosarcia heath. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %.	Topography: flat,
IB160	NYI	6			48	1									halosarcia heath. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %.	Topography: flat,
IB165	NYI	10			48	7									halosarcia heath. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %.	Topography: flat,
TB166	NYI	9			48	5	_ _				İ				halosarcia heath. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %.	Topography: flat,
TB163	NYI	5			48	5		_	i i		İ				halosarcia heath. Upper: 0 cm, 0 %. Mid: 0 cm, 0 %.	Topography: flat,
TB167	NYI	9			48	4		-Iİ-	_i_i		i			_	halosarcia and pink saltbush heath. Upper: 0 cm, 0 %.	Topography: flat,
55	WAFCBOR	31	21 46	99 189 2	87				l		I			I	Eucalyptus leucophloia. Corymbia hamersleyana,	Long low ridge/spur of cemented
	550AA			99 189 2							I				Open Woodland of Corymbia hamersleyana to 5m over	Valley floor, relatively flat
IB132		17	21 10	77 107 2	25)			· _						triodia wooly grassland with emergent acacia unequal and	Topography: undulating low hills,
50	WAFORSLO	7	13 32	66 123 1	88				I			I			Triodia pungens hummock grassland.	Sloping top of a low hill.
	WAFORSLO			66 123 1					<u> </u>			<u> </u>		1	Eucalyptus leucophloia scattered low trees over Triodia	Upper slope.
	WAMTLEA			66 123 1				<u> </u>	I					1	Eucalyptus leucophloia scattered low trees over Triodia Eucalyptus leucophloia scattered low trees over Triodia	Low rise.
)9	WAMILEA	12	15 55	00 123 1	88		_	-							Eucarypius ieucopinioia scattered low trees over Triodia	Low rise.
	WPI			66 123 1											Corymbia candida ssp. candida low open woodland over	Drainage line
	WAMTROB	8	13 34	68 128 1	96										Eucalyptus leucophloia low woodland over Cassia	Moderate slope below site 1224, nor
IB063	NYI	14			19	5	_								Triodia basedowii with emergent shrubs and Euc	Topography: hillside, slope: 5 to 15
IB067	NYI	22			18	3									Triodia schinzii with emergent Acacias and H. lorea.	Topography: hillside, slope: 15 to 25
6A	WAGEORIV	12	13 35	71 136 20	07		_								Corymbia hamersleyana scattered low trees over Acacia	Gentle south-east trending lower slo
'6B	WAGEORIV			71 136 20					 	i		<u> </u>		i	Acacia maitlandii open shrubland over Triodia pungens	Upper slopes.
TB149		23			52	3	,		İ			İ		İ	. Upper: 0 cm, 0 %. Mid: 250 cm, 1 %. Lower: 50 cm, 15	Topography: slope, slope: gentle, we
N56	378	26	1 4	13 29 4	8			I	I	I		I			Corymbia hamerslyana scattered low trees over Acacia	Very gentle west facing slope of low
		_						<u> </u>	<u> </u>	<u> </u>		<u> </u>		1	Corymbia hamersleyana scattered low trees / Acacia	Gently sloping (north aspect) lower
N-MX		21		13 29 4				_		<u> </u>		<u> </u>		1	Cassia prunocarpa, Acacia inaequilatera scattered tall	
	378			13 29 4					-					1		Crest and upper slopes of a low ridg
	WAHAMPAR			5 12 2						<u>_</u>				1	Acacia ancistrocarpa high to open shrubland over Triodia	Upper slope, adjacent to cracking cla
	WPI	_	1 2						.					1	Acacia arida and Senna glutinosa ssp. pruinosa open	Slope of low hill/ degraded mesa
023	WPI	⊥ 20	1 2	5 12 2	1										Acacia bivenosa and Petalostylis labicheoides open	Southeast upper slope of a small hill

site	PROJ	spp	50 10	0 200 400 60	0 nnb	data							VEGETATION	HABITAT
						0.0000 0.2478 0.4956	0.7433	0.9911	1.2389	1.4867	1.7344	1.9822		
YIA092	NYI	28			48								isolated trees of corymbia hammersleyana over scattered	Topography: rolling plain, slope: 3, ea
RAIL093	550AA	14	44 88	175 349 52	6							1	Scatetred Low Trees of Corymbia deserticola subsp.	Gently sloping up to the south to a sma
YIA001		12	-	175 547 52	314							<u> </u>	Hummock Grassland of Triodia Briz with Acacia	Topography: Upper Slope, slope: 5,
									'					
189	WAMTLEA	8	20 45	96 183 27	7			1	1				Acacia hilliana low open shrubland over Plectrachne sp.	Flat topped hill.
R002	550AA	10	20 45	96 183 27	7				İ				Scattered Low Trees of Corymbia hamersleyana to 2.5m	Hillslope, gently sloping eastward
YIA105	NYI	18			527								hummock grassland of triodia wiseana with scaevola	Topography: ridge, slope: 2, north we
9track2	FMG-2006	12	20 45	98 188 28	6									
MG113		_	-	124 247 38									Grevillea wickhamii, Hakea chordophylla scattered tall	Gently sloping, NW-facing colluvial
YIA012		33			381								hummock grassland of triodia epactia and triodia briz with	1
YIC042		29			383									Topography: lower slope, slope: >5, e
YIB062		38			380							1	E leucophloia over Triodia basedowii on a hilltop.	Topography: flat, at the base of the hil
YIB072		38	-		383							1	A elachantha and Grevillea wickhamii over Cenchrus and hummock grassland of triodia briz with emergent grevillia	Topography: flat,
YIA008 YIB069		26	-		569? 528		1		<u> </u>			 	triodia grasslands with emergent grevilla wickhamii and E	Topography: Lower slope, Topography: lower slope, slope: 0 to 5
YIB070		14	-		529		1	<u> </u>	<u> </u>	<u> </u>		1	grevilla wickhamii over Triodia epactia and Triodia	Topography: lower slope, slope. 6 to 5
YIB070		24	-		282				<u> </u>				mixed shrubs over triodia and mixed herbs.	Topography: flat with some creeklines
YIB001		8	-		529		<u>-</u>					İ	open shrubland of acacia tumida over hummock grassland	Topography: lower slope, slope: 5-15
YIB064		9	-		528							1	Grev. Wickhamii, A. ancistrocarpa and Gossypium	Topography: hillside, slope: 5 to 15,
YIB077		15	-		528		İ					İ	triodia basedowii grasslands with Dampiera candicans and	Topography: lower, slope: 0 to 5, slope
YIB080	NYI	8			249		i	İ	İ	İ		İ	triodia epactia grasslands with emergent mixed acacias	Topography: mid slope bifhills, slope:
YIB003	NYI	16	5		528				İ				grevilla wick over mixed shrubs and triodia.	Topography: upperslope, slope: gentle
YIB078	NYI	22			569								triodia epactia grasslands with A elachantha and mixed	Topography: mid slope bif hill, slope:
YIB004	NYI	22			380								Corymbia hamersleyana over acacia and Acacia	Topography: lower slope , slope: gentle
RAIL007		_	-	100 193 29									Low Open Woodland of EUC LEUCO to 5m over	Hilltop and slopes, facing the west
YIA118		19	-		254								isolated trees of corymbia deserticola and eucalyptus	Topography: u/s, slope: 5, south east
ION021	EP00550AA	14	21 46	100 193 29	4								Low Open Woodland of Eucalyptus leucophloia subsp.	Undulating small hills - Sloping up to
DO MA	271	1.7	12.24	(0. 120.20	0			11	ı			1	Acacia maitlandii (Acacia atkinsiana, Acacia	Court of toll ot one 1:11
RO-MA RO-MB		_	-	69 130 20 69 130 20			<u> </u>	<u> </u>				 	Acacia atkinsiana shrubland over Triodia wiseana mid-	Crest of tall stony hill Crest of tall stony hill
RO-ML		_	-	69 130 20			<u> </u>	<u> </u>		<u> </u>		1	Acacia pruinocarpa tall open shrubland over Acacia	Low stony hill
YIA108		19	-	0) 130 20	47			<u> </u>		<u> </u>		<u> </u>	open woodland of eucalyptus leucophlia over hummock	Topography: lower slope , slope: 2,
YIB181		21	-		365		1 1	11				<u> </u>	open eucalypt woodland over acacia bivenosa over	Topography: undulating plains, slope:
YIB182		16	-		249			_ii				İ	acacia over triodia. Upper: 600 cm, 0.5 %. Mid: 200 cm, 4	Topography: undulating plains, slope:
240	WAMTROB	24	42 85	170 338 50	9								Acacia aneura var. ?aneura/intermedia low open forest	Moderate slope on the crest of a spur
YIA091	NYI	15			579								open shrubland of acacia pruinocarpa over dodonaea	Topography: ridge, slope: 1, north wes
YIB148	NYI	28			569							1	acacia aneura and pruinocarpa over symbopogon and	Topography: ridge/break-away, slope:
	2491	_	-	194 384 57									Eucalyptus victrix low open woodland over Grevillea	Creekline (Goman Creek)
MR-MN		_	-	194 384 57		1	1 1	<u> </u>				<u> </u>	Eucalyptus victrix low open woodland over Grevillea Eucalyptus victrix scattered low trees over Acacia	Creekline
257 YIC095	HDRAIL	43	-	194 384 57	575							I	. Upper: 1000 cm, 10 %. Mid: 350 cm, 15 %. Lower: 50	Flood plain adjacent to creek.
110093	14 1 1	43			3/3		_					ı	. epper. 1000 cm, 10 /0. wild. 350 cm, 15 /0. Lowel. 30	Topography: flat,
.055	HDRAIL	43	47 97	195 386 57	7	1 1			I				Acacia aneura, A. pruinocarpa closed scrub over	Sandy plain
	HDRAIL	_	-	195 386 57				<u> </u>	<u> </u> 			<u> </u>	Acacia aneura low woodland over Acacia aneura, A.	Very gentle slope on gently undulating
	HDRAIL	_	-	195 385 57			<u></u>	<u> </u>					Eucalyptus victrix scattered trees (none in plot) over	Creek bank.
YIA122		22			427				<u> </u>			i	open woodland of acacia aneura and acacia pruinocarpa	Topography: flat ,
YIA127		29			427		<u> </u>		<u> </u>			i	open woodland of acacia pruinocarpa, acacia aneura and	Topography: flat ,
YIC116		28	-		577		i	i				<u>i</u>	. Upper: 900 cm, 10 %. Mid: 200 cm, 5 %. Lower: 100	Topography: flat,
YIC108	NYI	22			427			İ					. Upper: 600 cm, 3 %. Mid: 0 cm, 0 %. Lower: 100 cm, 5	Topography: flat,
YIA124		24			427								open woodland of acacia aneura and acacia pruinocarpa	Topography: flat,
YIC113		25			427								. Upper: 1200 cm, 4 %. Mid: 400 cm, 15 %. Lower: 50	Topography: flat,
YIC105		20			577								. Upper: 700 cm, 5 %. Mid: 250 cm, 15 %. Lower: 50 cm,	Topography: flat,
YIC106		19	-		577							<u> </u>	. Upper: 600 cm, 2 %. Mid: 200 cm, 5 %. Lower: 100 cm,	Topography: flat,
YIC109		15	_		577?								. Upper: 600 cm, 5 %. Mid: 250 cm, 5 %. Lower: 100 cm,	Topography: flat ,
YIC111		19	-		577								. Upper: 900 cm, 10 %. Mid: 200 cm, 5 %. Lower: 100	Topography: flat ,
YIC115		13	-		427								. Upper: 900 cm, 2 %. Mid: 3550 cm, 3 %. Lower: 100	Topography: flat ,
YIA123		19			308	1						<u> </u>	. Upper: 600 cm	Topography: flat ,
YIB173	IN Y I	30	<u>'</u>		577								triodia basedowii grassland with acacia. Upper: 0 cm, 0	Topography: flat,

site PR	ROJ	spp 50 10	0 200 400 600	nnb	data									VEGETATION	HABITAT
					0.0000 0.2478	3 0	.4956	0.7433	0.9911	1.2389	1.4867	1.7344	1.9822		
NYIB174 N		28		577										acacia aneura over mixed shrubs and triodia. Upper: 800	Topography: flat,
NYIB176 N		16		556			_							. Upper: 800 cm, 2 %. Mid: 130 cm, 1 %. Lower: 40 cm,	Topography: flat,
NYIB170 N		23		577										acacia aneura over triodia. Upper: 800 cm, 8 %. Mid: 200	1017
NYIB184 NY		26		404			_	_ _						acacia aneura over eremophylla over triodia. Upper: 1000	Topography: flat,
	AMTLEA	18 1 3	11 24 40	565										Eucalyptus leucophloia low open woodland over Acacia scattered eucalyptus phloia over santalum lancelatum over	South facing slope of low hill/ridge.
NYIA117 NY NYIA120 NY		31 29		565 40						<u> </u>	<u> </u>		<u> </u>	mixed acacia shrubland over triodia wiseana Upper:	Topography: mi/c, slope: 3, east Topography: mi/c, slope: 1, west
NYIA107 N		42		565			_						<u> </u>	tall shrubland of acacia aneura over triodia pungens and	Topography: lower slope , slope: 3, east
NYIA119 N		31		310				<u> </u>		<u> </u>				open woodland of acacia aneura over sarcostemma	Topography: mid slope, slope: 5, east
NYIA110 N		48		565							<u> </u>		<u> </u>	mixed shrubland of acacias and malvaceae . Upper: 400	Topography: rolling plain, slope: 1,
NYIA112 N		51		565				i		1				open shrubland of grevillea wickhamii and acacia dull	Topography: lower slope, slope: 3,
NYIA111 N	YI	61		568			I i	İ		İ			İ	tall shrubland of acacia incurvaneura over shrubland of	Topography: rolling plain, slope: 1,
NYIA113 N	YI	33		567				i		İ			İ	woodland of acacia pruinocarpa and acacia xiphophylla	Topography: flat,
NYIA116 N	ΥI	36		310										low woodland of eucalyptus gamophylla over triodia	Topography: flat, slope: 1, east
NYIA121 N		26		301										mixed acacia shrubland over triodia wiseana . Upper: 0	Topography: flat,
NYIC125 N		22		314			_							. Upper: 350 cm, 3 %. Mid: 200 cm, 5 %. Lower: 100 cm,	Topography: hillside, slope: 5-10 %,
NYIC124 N		20		194										. Upper: 0 cm, 0 %. Mid: 600 cm, 7 %. Lower: 100 cm, 25	1 5 1 3
NYIB152 N		25		527										open corymbia woodland over mixed shrubs over triodia	Topography: mid slope, slope: 5-10
NYIC098 N		35		565			_							. Upper: 500 cm, 5 %. Mid: 200 cm, 2 %. Lower: 50 cm,	Topography: flat hilltop / plateau,
BRO02 27			191 377 565											Acacia inaequilatera, Acacia atkinsiana scattered tall	Mild colluvial footslope
BRO15 27			191 377 565											Eucalyptus leucophloia subsp. leucophloia, Corymbia Eucalyptus leucophloia subsp. leucophloia scattered low	Crest of low stony hill
BRO29 27 BRO30 27			191 377 565 191 377 565					<u> </u>		<u> </u>	<u> </u>		<u> </u>	Acacia atkinsiana, Acaacia exilis tall open shrubland over	Rocky upper hillslope (mild slope) Rocky undulating plain
BRO31 27			191 377 565					I					<u> </u>	Eucalyptus leucophloia subsp. leucophloia, Corymbia	Shallow drainage line in broad
BRO36 27			191 377 565					<u> </u>						Eucalyptus gamophylla, Codonocarpus cotinifolius	Plain
BRO41 27			191 377 565					İ			<u> </u>		<u> </u>	Corymbia hamersleyana, Eucalyptus gamophylla low	Seasonally wet minor drainage line
BRO28 27			191 377 565			I								Acacia aff. aneura (narrow fine veined; site 1259) low	Broad alluvial plain
BRO47 27			191 377 565					i		İ				Acacia stowardii, Acacia aff. aneura (narrow fine veined;	Crest of low stony rise
BRO42 27	71	53 47 96	191 377 565	i			İİ_	_ i		İ			İ	Cassia pruinosa, Cassia luerssenii, Acacia bivenosa,	Base of rocky hillslope
BRO12 27	71	71 47 96	191 377 565	5				l İ		İ			İ	Eucalyptus leucophloia subsp. leucophloia low woodland	Rocky creekline
BRO-MC 27	71	51 47 96	191 377 565	5				_	_					Eucalyptus leucophloia subsp. leucophloia, Eucalyptus	Rocky gorge
EMI 12 24	101	60 47 06	102 200 570						1					Grevillea wickhamii tall open scrub over Acacia	Construir stand for the land
FML13 24 FML34 24			193 380 570 193 380 570					<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	Acacia tumida closed heath	Creek in stony footslopes Minor drainage line heading downslope
FML34 24 FMN25 24			193 380 370					<u> </u>	<u> </u>	<u> </u>			<u> </u>	Grevillea wickhamii, Acacia monticola open heath	Minor drainage line from small hills and
FML38 24			193 380 576											Grevillea wickhamii tall shrubland over Senna glutinosa	Lower slope of low hill (S to SW
FML61 24			193 380 569						<u> </u>					Eucalyptus leucophloia scattered trees over Grevillea	Mid and upper slope (NNE / NE facing)
FML42 24			193 380 569					i						Acacia aneura, Hakea lorea subsp. lorea scattered tall	Moderate lower slope (S facing) of an
FML-RA 24	191		193 380 569					_i i	i	i			İ	Grevillea wickhamii, Acacia arida scattered shrubs over	Hillslope
P9L FN	MG-2006	32 47 96	193 380 569					li i	İ	İ			İ	Acacia aneura var. intermedia Tall Shrubland over	Gentle slope easterly facing on side of
P9Q FN	MG-2006	34 47 96	193 380 569)										Acacia inaequilatera and Acacia tumida var. pilbarensis	Flat plain between low ranges, very
NYIA093 N	YI	43		20										tussock grassland of aristida contorta and eriachne	Topography: low rise, slope: 1, south
NYIA098 N		59		20										open shrubland of acacia tetragonophylla over hummock	Topography: broad ridge, slope: 3,
NYIA100 N		49		565		_								isolated trees of corymbia hammersleyana over scattered	Topography: broad ridge , slope: 2,
NYIA102 N		33		565			_							hummock grassland of triodia wiseana and triodia	Topography: lower slope , slope: 15,
NYIA096 NY		38		20			_							isolated acacia inequilatera over hummock grassland of isolated low shrubs over hummock grassland of triodia	Topography: broad ridge,
NYIA097 NY		33		269?			<u> </u>		<u> </u>					eucalyptus leucophlia over grevillia pyramidalis over	Topography: ridge, slope: 10, east and Topography: mid slope, slope: 5, south
NYIA103 N'		38		267 565?						I				shrubland of acacia purifolia and acacia sericcophylla	Topography: hind slope; slope: 3, south Topography: broad ridge; slope: 1,
NYIC084 N		30		471			_		<u>I</u>				<u> </u>	. Upper: 700 cm, 7 %. Mid: 200 cm, 2 %. Lower: 50 cm,	Topography: biolad ridge, slope: 1, Topography: hillside, slope: 10-15 %,
NYIC085 N		31		162									<u> </u>	. Upper: 0 cm, 0 %. Mid: 400 cm, 1 %. Lower: 40 cm, 50	Topography: hilltop,
NYIA095 N		50		143			I		<u> </u>		<u> </u>			isolated corymbia hammersleyana over shrubland of	Topography: mi/c,
NYIB133 N		43		565				i	i	i			i	acacia bivenosa and ancistrocarpa over triodia. Upper: 0	Topography: lower slope, slope: vert
NYIB131 N		46		139					i				i	acacia ancistrocarpa and acacia pyrifolia over triodia and	Topography: flowline/flat,
NYIB139 N		32		269										triodia wooly and pungens grassland with emergent acacia	Topography: undulating plains, slope:
NYIB144 N		35		20										mixed acacia over triodia. Upper: 0 cm, 0 %. Mid: 300	Topography: floodplain,
NYIB147 N		34		144										. Upper: 1500 cm, 2 %. Mid: 300 cm, 4 %. Lower: 100	Topography: ma/c,
NYIB178 N		24		247										acacia tumida shrubland (forest!). Upper: 0 cm, 0 %. Mid:	1 5 1 3
NYIC089 N		33		362						<u> </u>			<u> </u>	. Upper: 0 cm, 0 %. Mid: 100 cm, 0 %. Lower: 30 cm, 20	Topography: gentle slope, slope: <5%,
NYIC092 N		33		564										. Upper: 800 cm, 1 %. Mid: 110 cm, 35 %. Lower: 30 cm,	
NYIC091 NY		36		565						<u> </u>				. Upper: 1000 cm, 5 %. Mid: 150 cm, 10 %. Lower: 50	Topography: flat ,
NYIB179 N	Y 1	28		139										acacia shrubland over triodia. Upper: 0 cm, 0 %. Mid: 130	1 opograpny: Howline, slope: gentle,

site	PROJ	spp	50 100 200 400 60	o nnb	data								VEGETATION	HABITAT
					0.0000 0.2478 0.495	6	0.7433	0.9911	1.2389	1.4867	1.7344	1.9822		
IYIB180		30	-	276		.	<u> </u>						mulga and eucalypt open woodland over acacia and	Topography: mi/c, slope: gentle, south
YIB130		31		54									. Upper: 0 cm, 0 %. Mid: 400 cm, 1 %. Lower: 70 cm, 20	Topography: riverbed,
YIB135		23		527									acacia pyrifolia over peas and triodia. Upper: 0 cm, 0 %.	Topography: mi/c, slope: mid slope <5
YIB137		22		249									. Upper: 0 cm, 0 %. Mid: 300 cm, 2 %. Lower: 30 cm, 25	Topography: u/s, slope: steep, north
YIB138		22	-	48									triodia grassland with mixed herbs and emergent acacia	Topography: u/s, slope: gentle, north
VYIB140		34		269			<u> </u>						. Upper: 900 cm, 0.5 %. Mid: 250 cm, 1 %. Lower: 50 cm,	1 2 1 1
NYIB143		29		71			<u> </u>						. Upper: 0 cm, 0 %. Mid: 200 cm, 1 %. Lower: 60 cm, 15	Topography: mi/c, slope: gentle, south
IYIB141		50		163			<u> </u>						eucalyptus victrix over acacia pyrifolia. Upper: 1500 cm,	Topography: ma/c,
IYIB142		27		162			ll			<u> </u>			triodia grassland with tephrosea, senna and acacia. Upper:	Topography: mi/c u/s, slope: steep,
IYIA094		12	-	56									scattered shrubs of acacia inequilatera and grevillia	Topography: u/s, slope: 5, north
VYIC080		20	-	527			-						spinifex with scattered shubland . Upper: 0 cm, 0 %. Mid:	Topography: lower slope, slope: 0.1,
YIC081	NYI	13		43			.		_				. Upper: 400 cm, 0.5 %. Mid: 150 cm, 2 %. Lower: 50 cm,	Topography: lower slope, slope: 5-10
D007	WPI	12	16 41 86 159 24	2									Acacia xiphophylla open shrubland over Senna stricta	Midslope of low rolling hills
YIC103		21	-	404								i	. Upper: 450 cm, 1 %. Mid: 150 cm, 2 %. Lower: 50 cm,	Topography: flat,
YIC104		14	-	242							<u> </u>		. Upper: 1000 cm, 5 %. Mid: 250 cm, 5 %. Lower: 100	Topography: flat ,
YIA021		17	-	404								<u> </u>	tall shrubland of acacia straight over maireana pyramid.	Topography: flat ,
YIB027		19	-	404			1						eucalyptus victrix over acacia pruinocarpa over Cenchrus	Topography: flat,
YIB106		17	-	404								İ	low-lying claypan with sparse Acacia aptaneura and	Topography: flat,
YIB097		22	-	404									Acacia xiphophylla over chenopods.	Topography: flat,
YIB107		18		397			<u> </u>					i	Acacia aptaneura over acacia tetragonopylla and	Topography: flat,
YIB098		8		397			i					i	acacia tetragonopylla over grazed herbs and grasses	Topography: flat,
VYIB026		24		404			i				i			Topography: flat,
VYIB095		14	-	430		i	i					i	acacia tetragonopylla and A aptaneura over Cenchrus	Topography: flat,
MG-BE			34 67 141 279 42					 					Acacia aneura low open forest over Acacia synchronicia	Flat plain
VYIB054		13	-	424								i	A. synchronicia over Chenopods and some grasses.	Topography: flat,
YIB093		25	-	424		<u> </u>						i	Acacia aptaneura over acacia tetragonophylla and	Topography: flat,
VYIB058		28		424		- 					i	i	A paraneura over Cenchrus. Upper: 700 cm, 8 %. Mid:	Topography: flat, slope: 0-5
VYIB059		28	-	141		i i					i	i	grasslands with emergent acacias and corymbia	Topography: flat,
NYIB055		15	-	425		11								Topography: flat,
NYIB056		18	-	404			i				i		A. synchronicia over mixed chenopods and Cenchrus with	Topography: flat,
NYIB057		13	-	414			i				i	i	A aneura over A synchronicia over Triodia longiceps and	Topography: flat with some flowlines,
NYIC017		26		404			i				İ	İ	. Upper: 600 cm, 10 %. Mid: 300 cm, 5 %. Lower: 120	Topography: flat ,
NYIB183		24	-	244							İ	i	acacia xiphophylla and aneura over grasses. Upper: 800	Topography: flat,
NYIC123		21	-	427			i				i	i	. Upper: 1000 cm, 15 %. Mid: 250 cm, 5 %. Lower: 100	Topography: flat ,
VYIC102		20	-	404?			i					i	. Upper: 850 cm, 15 %. Mid: 300 cm, 2 %. Lower: 80 cm,	Topography: flat,
VYIC024		19	-	425							i		. Upper: 1000 cm, 35 %. Mid: 500 cm, 5 %. Lower: 130	Topography: flat,
VYIC056		18	-	398		i	i				i	i	. Upper: 200-1000 cm, 20 %. Mid: 300 cm, 5 %. Lower:	
VYIC055		15		425		i	i				i	i	. Upper: 200-1200 cm, 40 %., Logs: 0.5 %. Twigs: 0.5 %.	Topography: flat.
YIC029		20		425			i				i	i	. Upper: 700 cm, 15 %. Mid: 230 cm, 15 %. Lower: 150	Topography: flat ,
YIC054	NYI	27	-	425		i	iii				i	i		
VYIC058		19	-	425		i	iii				i	i		Topography: flat,
VYIC028		33	-	427			<u> </u>				İ	İ	. Upper: 800 cm, 10 %. Mid: 500 cm, 5 %. Lower: 150	Topography: flat ,
VYIC031		19		425		ii	ii				İ	i		Topography: flat,
VYIA018		21	-	425?							İ	İ	shrubland of acacia synchronicia and acacia	Topography: flat ,
VYIB024		25		508							İ	i	acacias over mixed shrubs and grass. Upper: 6 cm, 200 %.	Topography: flat,
VYIC049		27		425?			<u> </u>				İ	i		Topography: flat,
VYIC050		36		425			<u> </u>				İ	i	i.	Topography: flat,
IYIB156		22		404							İ	i	acacia aneura over mixed acacia over grass. Upper: 1500	Topography: flat,
YIB025		24		406								i	acacia tingley and melaleuca clay pan over thick shrubss	Topography: clay pan,
YIC051		18	-	424		i						i	. Upper: 500 cm, 7 %. Mid: 150 cm, 30 %. Lower: 70 cm,	Topography: flat,
YIB094		19	-	424			_,	. <u></u>				i	clay pan mulga over berry tree and acacia tetraggonopylla	Topography: flat with erosion holes,
YIB099		25	-	430				i			İ	i	mixed herb and grassland. Upper: 1000 cm, 2 %. Mid:	Topography: flat with eroded holes,
YIB096		28	-	424				i			İ	İ	claypan depression with A synchronicia and Acacia	Topography: flat,
YIB101		28		425				i				i	Acacia aptaneura over scaevola spinescens, A.	Topography: flat,
NYIB101		25		430		-						İ	Acacia aptaneura over Cenchrus ciliaris and mixed herbs.	Topography: flat with eroded holes,
YIB102 YIB103		25		430									Acacia aptaneura over acacia tetragonopylla, Erem	Topography: flat with croded holes,
NYIB103		25		430							<u> </u>		triodia epactia grasslands with emergent Acacia	Topography: flat with eroded holes,
NYIB104		23		430?							<u> </u> 		Acacia aptaneura over acacia tetragonopylla over grasses	Topography: flat with eroded holes,
NYIB105		24		430							<u> </u>		Acacia xiphophylla over scattered chenopods. Upper:	Topography: flat,
NYIC025		54		435							I	<u> </u>	. Upper: 700 cm, 40 %.	Topography: flat ,
	NYI	32		425		· I		<u> </u>			<u> </u>		Mulga forrest over herbs. Upper: 1000 cm, 15 %. Mid:	Topography: flat,

site	PROJ	spr	50 100 200 400 60	nnb	data								VEGETATION	HABITAT
						.4956	0.7433	0.9911	1.2389	1.4867	1.7344	1.9822		
YIC057	NYI	34	1	430			1	ĺ					. Upper: 1000 cm, 5 %. Mid: 400 cm, 5 %. Lower: 80 cm,	Topography: lower slope, slope: >5,
YIC060	NYI	25	5	430									. Upper: 1000 cm, 60 %. Mid: 400 cm, 10 %. Lower: 100	Topography: flat,
YIA022	NYI	22		425							İ	İ	hummock grassland of triodia epacta with open shrubland	Topography: flat ,
/IA028		31		425		_		i			İ	İ	mulga woodland over mixed tussock grassland. Upper:	Topography: flat ,
/IA030		18	_	425		Ī		i			i	i	shrubland of acacia irrigate over hummock grassland of	Topography: flat ,
IA079		14	_	276?		İ							tussock grassland of cenchrus ciliaris with open tall	Topography: flat ,
/IA032		20	_	145		İ		i				İ		Topography: flat ,
YIA033		26		427		 						I	. Upper: 700 cm, 1 %. Mid: 300 cm, 5 %. Lower: 70 cm,	Topography: flat ,
'IA023		17		552?									herb land of goodenia and aristeda contorta .	Topography: flat ,
'IA035		21	-	552			<u> </u>	<u> </u>			<u> </u>	<u> </u>	isolated acacia pruinocarpa over trodia epacta with	Topography: flat ,
'IA078		19	_	552				<u> </u>				<u> </u>	isolated tussock of cenchrus ciliaris with isolated shrubs	Topography: flat ,
TA076		22	_	552			<u> </u>	<u> </u>			<u> </u>	<u> </u>		
							<u> </u>	<u> </u>			I	I	herbland of portulacha pilbara and salsola kali .	Topography: flat ,
IC035		38		433		<u> </u>	<u> </u>				I	<u> </u>	•	Topography: flat ,
IC066		22		425										Topography: flat ,
IA025		19	_	425										Topography: flat,
IC059		19	-	425										Topography: flat,
TA073		13		425									herbland of goodenia obovate with acacia sincronicia and	Topography: flat,
IA024	NYI	29)	404?									acacia sincronicia over eriachne.	Topography: flat,
IA026	NYI	26	_	425			_						tussock grassland of aristeda healthy with mulga fir .	Topography: flat,
TB100	NYI	23	3	437			<u> </u>						A aptaneura over A tetragonopylla, A xiphophylla and A	Topography: flat, floodplain,
TA042	NYI	32		552			<u> </u>				İ		mulga woodland over acacia synchronicia over	Topography: flat,
TA043		31		404?			İİ	İ			İ	İ	shrubland of acacia synchronicia over tufted grassland of	Topography: flat ,
TA074		27	_	433		1	ii	i			i	i	mulga woodland over herbland of bidens bipinate . Upper:	Topography: flat ,
'IA075		26		425									mulga open woodland over shrubland of acacia	Topography: flat ,
TA076		34	_	430		1 1							woodland of mulga fir over tussock grassland of	Topography: flat ,
IA114		41	_	433				- 			<u> </u>	<u> </u>	open woodland of acacia xiphophylla over shrubland of	Topography: flat ,
		_									I	<u> </u>	woodland of acacia incurvaneura over tussock grassland	
IA115		48		450								<u> </u>	· ·	Topography: flat ,
IC094		36		456				<u> </u>					. Upper: 650 cm, 10 %. Mid: 150 cm, 1 %. Lower: 50 cm,	Topography: flat ,
TC096		36		450				<u> </u>					. Upper: 800 cm, 15 %. Mid: 200 cm, 1 %. Lower: 50 cm,	Topography: flat,
IC097		41	-	450				<u> </u>					. Upper: 800 cm, 20 %. Mid: 250 cm, 2 %. Lower: 50 cm,	Topography: flat,
TB157		26	_	398									acacia aneura over mixed shrubs . Upper: 1800 cm, 4 %.	Topography: mi/c,
TC100	NYI	36		427									. Upper: 800 cm, 5 %. Mid: 300 cm, 3 %. Lower: 40 cm,	Topography: flat,
/IC101	NYI	38	3	567		_ _	_ _						. Upper: 800 cm, 10 %. Mid: 0 cm, 0 %. Lower: 50 cm, 20	Topography: flat,
TB153	NYI	26	5	433?									acacia aneura woodland over sparse grasses. Upper: 1000	Topography: flat,
/IB154	NYI	39)	433		_							acacia aneura and xiphophylla over senna and grass.	Topography: flat,
TB155	NYI	27	7	404			i	<u> </u>			İ	İ	acacia aneura over mixed herbs and grasses. Upper: 1500	Topography: flat,
TA029	NYI	27		404				i i			İ	i	mulga woodland and mulga 5mm over psydrax longifolia	Topography: flat,
'IA037		43		435				- 				İ	. Upper: 600 cm, 35 %. Mid: 200 cm, 5 %. Lower: 50 cm,	Topography: flat ,
'IA038		30		425				1 1					woodland of mulga 5mm over tufted grassland of	Topography: flat ,
TA077		19		425								I	woodland of mulga fir over chrysopogon fallax . Upper:	
		_	_	427				1 1			I	<u> </u>	. Upper: 1000 cm, 30 %. Mid: 500 cm, 5 %. Lower: 140	Topography: flat ,
TC022		36	_										11	Topography: flat ,
IC067		48		426									. Upper: 1000 cm, 40 %. Mid: 500 cm, 5 %. Lower: 120	Topography: flat ,
IC034		50		426		<u> </u>							. Upper: 700 cm, 40 %.	Topography: flat ,
TC061		44		404?									. Upper: 800 cm, 35 %., Logs: 2 %. Twigs: 4 %. Leaves:	Topography: flat,
IC063		42		404				<u> </u>					. Upper: 800 cm, 35 %. , Logs: 2 %. Twigs: 4 %. Leaves:	Topography: flat,
TC048		51		404									Acacia, melaleuca scrub with eremophilas over buffle	Topography: flat,
TC023	NYI	32	2	567									. Upper: 1000 cm, 50 %. Mid: 350 cm, 5 %. Lower: 130	Topography: flat,
IC030	NYI	33	3	567									. Upper: 800 cm, 40 %. Mid: 500 cm, 5 %. Lower: 160	Topography: flat,
IC033	NYI	31	Ī	425		İ		i			İ	İ	. Upper: 800 cm, 50 %., Logs: 2 %. Twigs: 10 %. Leaves:	
IC053		27		425	<u> </u>	ii		i i			i	İ	. Upper: 1000 cm, 40 %., Logs: 1 %. Twigs: 5 %. Leaves:	
IB038		31		379				i				i	mixed mulga over grass.	Topography: flat,
IB151		37		568				<u> </u>			<u>I</u>	İ	acacia aneura over mixed herbs abd triodia. Upper: 600	Topography: flat,
C003		40		577		I	- <u> </u> 				<u> </u>	<u>'</u>		- spography, man,
IC003 IC037		36	_	379	1		<u> </u>	<u> </u>			<u> </u> 	<u>I</u>	· ·	Tonography: flat
		_	_				<u> </u>	1 1			<u> </u>	<u> </u>	. Upper: 600 cm, 5 %. Mid: 300 cm, 5 %. Lower: 150 cm,	Topography: flat ,
IC007		52		379	1		<u> </u>					<u> </u>	**	Topography: flat ,
IC008		40	_	428							<u> </u>		. Upper: 700 cm, 10 %. Mid: 400 cm, 2 %. Lower: 120	Topography: flat ,
IC047		46		428				<u> </u>					Low Mulga forrest over eremophila open low shrubland	Topography: flat,
TC036		41		428										Topography: flat,
'IC038	NYI	41	1	423							T		. Upper: 600 cm, 1 %. Mid: 250 cm, 10 %. Lower: 100	Topography: flat,
YIC046	NYI	38	3	423									Mulga scrub over Senna and Acacias over triodia .	Topography: flat,
YIC004		38		577		_	i i	i			i	i		
	NYI	30		428			<u> </u>	i i			i	i	Acacia aptaneura over Chrysopogon fallax and mixed	Topography: flat,

site	PROJ	spj	50 100 200 400	0 600 1	nnb	data									VEGETATION	HABITAT
						0.0000 0.2478	0.4956	0.7433		0.9911	1.2389	1.4867	1.7344	1.9822		
NYIB124	NYI	34	1	4	127?		_								Acacia aptaneura and Acacia pruinocarpa over Triodia	Topography: flar,
NYIB112	NYI	24	1	4	567										Acacia aptaneura over Eremophila latrobei and Triodia	Topography: flat,
VYIB122	NYI	32	2	4	104		.								Acacia aptaneura over Solanum lasiophyllum and mixed	Topography: flat,
NYIB110	NYI	30	5	4	128										Acacia aptaneura and A pruinocarpa over Triodia epactia	Topography: flat,
NYIB111	NYI	2	7	4	404										open acacia shrubland over triodia epactia. Upper: 600	Topography: flat,
NYIB116	NYI	40)	4	104	l	.								low lying herb community with emergent acacia	Topography: flat,
NYIB113	NYI	28	3	4	125										Acacia aptaneura and Acacia pruinocarpa over mixed	Topography: flat,
NYIB114	NYI	32	2	4	104											Topography: flat,
NYIB115	NYI	32	2	4	125										Acacia aptaneura over Psydrax latifolia and mixed herbs.	Topography: flat, drainage channel,
NYIB125	NYI	33	3	2	127										. Upper: 700 cm, 6 %., Logs: 0.4 %. Twigs: 2 %. Leaves:	Topography: flat,
NYIB119	NYI	29		2	128										Acacia aptaneura and Acacia pruinocarpa over herbs.	Topography: flat,
NYIB120	NYI	30)	2	128		İ						ĺ	İ	open mixed acacia shrubland over grazed grass. Upper:	Topography: flat,
NYIB123	NYI	25	5	2	125		_ii	İ	İ	İ			ĺ	İ	Acacia aptaneura and Acacia pruinocarpa over Triodia	Topography: flat,
NYIB117		29		2	124	·	i I i	İ	İİ	i			İ	İ	Acacia aptaneura over mixed herbs and Eragrostis	Topography: flat,
NYIB118		29		_	104		ii	i	ii	i			i	i	Acacia aptaneura and Acacia pruinocarpa over mixed	Topography: flat with erosion,
NYIB121		24		-	125				ii					İ	Acacia aptaneura and Acacia pruinocarpa over Triodia	Topography: flat,
NYIA013		12	-	-	147								i	İ	grassland of enneapogon polyphyllus with isolated	Topography: flat ,
NYIC021		1		-	147								<u> </u>		. Upper: 1000 cm, 5 %. Mid: 500 cm, 5 %. Lower: 100	Topography: flat ,
NYIB031		10	-	-	147								<u> </u>	<u> </u>	Mixed Acacias over grasses with emergent corymbia	Topography: flat,
NYIC020		1:	-	-	147						<u> </u>		<u> </u>	I	. Upper: 700 cm, 5 %. Mid: 350 cm, 5 %. Lower: 80 cm,	Topography: flat ,
NYIB017		1.	-	-	393								<u> </u>	<u> </u>	acacia hard tree and hakea lorea over caterpillar grass.	Topography: flowline, flat,
NYIB092		1.	-	-	147						<u> </u>		<u> </u>	<u> </u>	acacia and chenopod shrubland with emergent Santalum	Topography: flat, adjacent to creekline
NYIC011		17	-	-	258						I		I	<u> </u>	. Upper: 10 cm, 25 %., Logs: 2 %. Twigs: 2 %. Leaves: 3	1 5 1 2
		_	-	-							I		<u> </u>	I	open tall shrubland of acacia eyebrows and acacia	Topography: flat
NYIA081		10	_	-	318 284		.							<u> </u>	eucalyptus victrix over few scrubs over Cenchrus setiger.	Topography: flat ,
NYIB018				-			<u> </u>				<u> </u>		<u> </u>	<u> </u>		Topography: flowline, flat,
NYIB041		13	-		147?		_				<u> </u>			<u> </u>	A aneura and A. pruinocarpa over Cenchrus ciliaris.	Topography: flat, adjacent to creekline
NYIA055		1.	-	-	127?						<u> </u>				open woodland of eucalyptus camaldulensis and corymbia	Topography: flat ,
NYIB036		10	-	-	254										E. victrix over A. citrinoviridis and A. pruinocarpa and	Topography: minor offset channel
NYIA068			-	-	131										tussock grassland of cenchrus ciliaris with woodland of	Topography: flat,
NYIB037		(5	-	131										A. aneura over Cenchrus setiger and herbs\. Upper: 1600	Topography: flat,
NYIB086		4	1	-	147										triodia longiceps grasslands with emergent Acacia	Topography: flat,
NYIA133		:	5	-	131			_							woodland of eucalyptus victrix and acacia citrinivirides	Topography: ma/c,
NYIA016		9)	-	148										tufted grassland of enneapogon phlyphyllus with	Topography: flat,
NYIA134	NYI	10	5	-	147		_								woodland of acacia aneura over open shrubland of acacia	Topography: flat,
NYIB021		4	1]	131										acacia tree over rough gras.	Topography: creekline, slope: 0, steep
NYIB022	NYI	4	1	-	131										eucalyptus victrix over acacia pruinocarpa over Cenchrus	Topography: flowline next to creekbed
NYIB023	NYI		5		131		_								acacia tingley over mixed shrubss. Upper: 1700 cm, 4 %.	Topography: flowline,
NYIB028	NYI	9)		131		.		_						Acacia pyrifolia var. pyrifolia over Triodia longiceps with	
NYIA017	NYI	10)		148										grassland of Triodia. Upper: 700 cm, 2 %. Mid: 250 cm, 3	Topography: flat,
NYIA128	NYI	1	l	2	282										isolated acacia aneura and acacia pruinocarpa over	Topography: flat,
NYIA131	NYI	10	5	2	266										woodland of acacia pruinocarpa and acacia aneura over	Topography: flat,
NYIA132	NYI	(5	[:	147										acacia aneura and acacia syncronicia over cenchrus	Topography: flat,
NYIC032		9		[:	147		i	i i			i		İ	İ	. Upper: 600 cm, 5 %. Mid: 180 cm, 2 %. Lower: 100 cm,	Topography: flat,
NYIB048		1		-	273?		T İ	i		1	i		İ	İ	Triodia schinzii and T. longiceps with some A.	Topography: flat,
NYIB083		12	-		147		i_i_	i		İ	İ				triodia longiceps and Cenchrus ciliaris with emergent	Topography: flat,
NYIA129		19	_	-	124					İ			İ		open acacia woodland over shrubland of acacia	Topography: flat,
NYIC009		24	-	-	124			<u> </u>		i i				<u> </u>	<u> </u>	Topography: flat ,
NYIC010		2			128		<u> </u>			İ	<u> </u>		<u> </u>	<u> </u>	. Upper: 500 cm, 1 %. Mid: 350 cm, 35 %. Lower: 80 cm,	
NYIC012		2			127	I				İ	<u> </u> 		<u> </u>	<u> </u>		Topography: flet,
NYIC068		2			276	1		<u> </u>		i	<u> </u> 		<u> </u>	i I	. Upper: 1000 cm, 15 %. Mid: 300 cm, 1 %. Lower: 80	Topography: flat ,
NYIC070		2	-	_	127			I		1	<u> </u>		<u> </u>	<u> </u>	. Upper: 900 cm, 5 %. Mid: 300 cm, 5 %. Lower: 80 cm,	Topography: flat ,
NYIC013		14		-	124		<u> </u>	I		<u> </u>	<u> </u> 		I	<u> </u>	. Upper: 1000 cm, 20 %. Mid: 250 cm, 3 %. Lower: 130	
NYIC013		33	_		124 124		<u> </u>	I		<u> </u>	<u> </u>		I	<u> </u>	. Upper: 1000 cm, 30 %., Logs: 1 %. Twigs: 5 %. Leaves:	Topography: flat ,
				-	131		11-1-	-		<u> </u>	<u> </u> 		<u> </u>	<u> </u>	mixed shrubs over triodia longiceps.	Topography: flat ,
NYIB032		12		-				1 1		1	<u> </u>		<u> </u>	<u> </u>	Cenchrus grasslands with emergent shrubs and corymbia	Topography: flat
NYIB090		13			273			1 1		1				1		Topography: drainaga lina slone: 5
NYIC026		27			575			1 1		1					. Upper: 1000 cm, 10 %. Mid: 400 cm, 5 %. Lower: 150	Topography: drainage line, slope: 5
NYIC027		22		_	125					<u> </u>	<u> </u>				. Upper: 1200 cm, 5 %. , Logs: 2 %. Twigs: 2 %. Leaves:	Topography: wide drainage line, slope
NYIB043		1.5	_	-	556		.	1		1					Mixed Acacias over mixed shrubs over Cenchrus ciliaris.	Topography: flat,
NYIC120		19	-	-	273										. Upper: 0 cm, 0 %. Mid: 250 cm, 7 %. Lower: 100 cm, 45	1017
NYIB044	NYI	18	3	1	276										A. aneura, A. synchronicia and A. citrinoviridis over	Topography: flat,
NYIB045	NYI	14	1	[:	155										triodia grasslands with emergent acacia ancistrocarpa and	Topography: flat,
	NYI	22	2	[:	147		_	_							. Upper: 800 cm, 5 %. Mid: 300 cm, 20 %. Lower: 80 cm,	Topography: flat,

ite	PROJ	spp 50 100 200 400 600	nnb	data							VEGETATION	HABITAT
				0.0000 0.2478 0.4956	0.7433	0.9911	1.2389	1.4867	1.7344	1.9822		
						I						
YIB084	NYI	19	145		<u> </u>	İ	<u> </u>				Cenchrus grasslands with emergent eucalyptus victrix	Topography: flat,
YIB088			319?		i i	i	İ			İ	Triodia longiceps and Cenchrus ciliaris with A	Topography: flat,
YIA039			141?			i	<u> </u>		<u> </u>	<u> </u>	grassland of enneapogon polyphyllus with trodia epacta	Topography: flat ,
YIA082			567?		<u> </u>	I	<u> </u>		<u> </u>	<u> </u>	open woodland of corymbia hamersleyana and mulga fir	
YIA049			254??		I	I	I		<u> </u>	I	tufted grassland of cenchrus ciliaris with acacia	Topography: slight depression,
						<u> </u>				<u> </u>		Topography: flat ,
YIB008			379								acacia tree over grass. Upper: 300 cm, 1 %. Mid: 200 cm,	Topography: flat,
YIB015			552?								mixed acacias over mixed grass.	Topography: flowline, flat,
YIC016			425									Topography: flat,
YIA051		16	427								grassland of trodia epacta and cenchrus ciliaris with open	Topography: flat,
YIB039		16	145								Acacia pyrifolia and A. pruinocarpa over Triodia epactia.	Topography: flat,
YIB042	NYI	17	148								A. sclerosperma and A. synchronicia over mixed shrubs	Topography: flat,
YIB009	NYI	20	431								acacias over grass. Upper: 800 cm, 8 %. Mid: 150 cm, 1	Topography: minor creek,
YIB010	NYI	19	404								acacia pruinocarpa over Cenchrus ciliaris. Upper: 900 cm,	Topography: flat creekline,
YIB014	NYI	19	600?		i i	İ	ĺ		İ	İ	. Upper: 400 cm, 6 %.	Topography: flowline, flat,
YIB012	NYI	13	431		i i	i	i		i	i	acacia pruinocarpa over Cenchrus ciliaris. Upper: 900 cm,	Topography: flowline, flat,
YIB013		23	182		1	İ	İ				acacias over grass . Upper: 700 cm, 5 %.	Topography: flowline, flat,
YIB013			575				<u> </u>		<u> </u>		acacia pruinocarpa over Cenchrus ciliaris. Upper: 800 cm,	Topography: flowline flat,
YIB040		20	145		<u> </u>	<u> </u>	I		<u> </u>	<u> </u>	A. pruinocarpa and A. citrinoviridis over Cenchrus ciliaris	Topography: flat,
					<u>- I </u>	I	<u> </u>		<u> </u>	<u>I</u>	tufted grassland of cenchrus ciliaris with isolated	
YIA052		18	155		<u> </u>		<u> </u>			<u> </u>		Topography: flat ,
YIA047			575								open woodland of eucalyptus camaldulensis over	Topography: MaC,
YIA048			575			<u> </u>	<u> </u>				open woodland of eucalyptus camaldulensis over	Topography: MaC,
YIA053		30	575								woodland of eucalyptus camaldulensis and acacia	Topography: mac,
YIB019	NYI	18	71?								creek bed lined with eucalyptus camalduensis and	Topography: flowline adjacent to cre
YIB020	NYI	18	155								eucalyptus victrix over grass. Upper: 1000 cm, 2 %. Mid:	Topography: major channel, slope:
YIB085	NYI	19	384								A pruinocarpa over Cenchrus ciliaris with emergent	Topography: flowline, slope: 1 to 5
YIA125	NYI	8	193			İ	İ		İ	İ	open woodland of acacia pruinocarpa over cenchrus	Topography: flat ,
YIB061		14	171						i		mixed shrub and herb community.	Topography: flat flowline,
YIB079		24	171?	1	1 1					I	triodia basedowii grasslands with emergent grevillia	Topography: flat, valley of bifhills,
YIB065			301		<u> </u>	<u> </u>			<u> </u>	I	triodia grasslands with emergent A ancistrocarpa, A	Topography: creekline, slope: 0-55,
	2491	18 1 2 5 13 22	301							<u> </u>	Acacia inaequilatera scattered tall shrubs over Triodia	East-facing lower slope of a low
	2491								<u> </u>	<u> </u>	reacta macquinatera scattered tan sin abs over rifodia	Lower colluvial spur (gently sloping,
	-	15 29 59 124 247 382	20.6								A symphomicis even This dis bessed evvii and This dis	
YIB066		16	296								A. synchronicia over Triodia basedowii and Triodia	Topography: flat,
		24 10 29 58 112 175									Scattered Low Trees of Corymbia hamersleyana to 8m	Slopebelow hill 100m east and fringing
YIA064		8	386								hummock grassland of trodia epacta with acacia	Topography: flat,
YIB175		13	383								open corymbia hamersleyana sparse woodland over	Topography: flat,
YIB172	NYI	20	254								acacia ancistrocarpa over triodia with emergent corymbia	Topography: flat,
YIB177	NYI	27	577								corymbia hamersleyana over acacia over triodia	Topography: flat,
YIB185	NYI	20	379?		-						triodia basedowii with acacia ancistrocarpa and corymbia	Topography: flat,
YIA126			383		<u> </u>	İ			iii	İ	low open woodland of eucalyptus gamophylla over triodia	Topography: flat,
YIC112			383?		i	i			ii	i	. Upper: 500 cm, 2 %. Mid: 250 cm, 10 %. Lower: 100	Topography: flat ,
YIB029			333			i			- i i	İ	Acacia pyrifolia over Triodia longiceps over mixed acacia	Topography: flat,
YIB033			383		I	<u> </u>			<u> </u>	I	acacia pachyacra and A. sclerosperma over Triodia	Topography: flat,
YIC117					I	<u> </u>			1 1	<u> </u>	. Upper: 400 cm, 4 %. Mid: 200 cm, 2 %. Lower: 100 cm,	
			385		<u> </u>	<u> </u>			<u> </u>	<u> </u>		Topography: flat ,
YIB046			383		<u> </u>	1					A. dictyophleba over Cenchrus and some Triodia	Topography: flat, possible flowline,
YIB049			383								Acacia tumida over Chrysopogon fallax and Cenchrus	Topography: flat,
	2491	36 29 59 123 245 379									Corymbia hamersleyana scattered low trees over Acacia	Flat valley floor adjacent to creek
/IG118		41 29 59 124 247 381									Eucalyptus gamophylla scattered low mallees over	Small creekline between lower collu-
MG-	2491	17 30 60 125 251 386										Alluvial flat valley floor
YIA058	NYI	23	383								hummock grassland of trodia austrostipa with open	Topography: flat,
YIA062	NYI		383								hummock grassland of trodia austrostipa with acacia flat	Topography: flat,
/IA063			386		İ	ĺ			ii	İ	hummock grassland of trodia epactia with hakea lorea .	Topography: flat ,
TA005			383		İ	1				İ	hummock grassland of triodia austrostipa with emergent	Topography: flat ,
TA014		16	383		<u></u>	<u>_</u>				<u> </u>	hummock grassland of triodia epactia with emergent	Topography: flat ,
TB068		17	383		<u> </u>	<u> </u>			<u> </u>	<u> </u>	triodia grasslands with with emergent grevilla wickhamii	Topography: flat, base of hills, slop
						<u> </u>				<u> </u>		
/IA009		30	384		1 1	1					hummock grassland of triodia epactia with emergent	Topography: flat ,
'IA015		26	384			1					hummock grassland of triodia epactia with shrubland of	Topography: flat,
TB047			384								mixed acacia over Cenchrus. Upper: 800 cm, 2 %. Mid:	Topography: gtgg,
'IA007	NYI	30	383								hummock grassland of triodia epactia with acacia	Topography: flat,
YIB081	NYI	13	273								triodia epactia grasslands with emergent acacias and	Topography: flat,
YIA010	NYI	38	383	· ·	Ti Ii						hummock grassland of triodia epactia with tall shrubland	Topography: flat ,
			383	I	ii	ĺ				İ	hummock grassland of triodia epactia with shrubland of	Topography: low rise, slope: 1, east
YIA011	INTI											

site	PROJ	snn 50	100 200 400	0 600 r	nnh	data								VEGETATION	HABITAT
Site	1103	врр 50	100 200 100	000		0.0000 0.2478	0.4956	0.7433	0.9911	1.2389	1.4867	1.7344	1.9822	V BOLITHION	
							1								
NYIB075	NYI	14		1	147			_	Ī					flowline of mixed acacias and grevillia wickhamii over	Topography: flat,
NYIB002	NYI	31		7	79 .		<u>.</u>	l İİ	İ				İ	hummock grassland with acacia bivenosa near creekline	Topography: minor channel,
NYIB073	NYI	26		3	384									open corymbia hamersleyana woodland with some A	Topography: creekline,
NYIB076	NYI	41		-	384 .		_	_						triodia basedowii grasslands with emergent grevillia	Topography: flat, flowlines,
H016	HDRAIL	34 29	59 124 249	9 384										Corymbia hamersleyana scattered low trees over Acacia	Broad bank of minor creek.
H035	HDRAIL		59 124 249	-										Gossypium robinsonii, Grevillea wickhamii scattered tall	Flood plain/flow area next to a small
H034	HDRAIL		59 124 249	-			_		<u> </u>					Corymbia hamersleyana scattered low trees over Acacia	Creekline through upper part of alluvial
H029	HDRAIL		59 124 249	_										Corymbia hamersleyana scattered low trees over Corymbia hamersleyana scattered low trees over	Small flow line between very low rises
H030	HDRAIL		59 124 249				<u> </u>		<u> </u>				<u> </u>	Acacia tumida, Gossypium robinsonii open heath over	Medium sized creek between low rises Shallow (about 40cm deep) drainage
H026 H040	HDRAIL HDRAIL		59 124 249 59 124 249				<u> </u>	<u> </u>	<u> </u>				<u> </u>	Corymbia hamersleyana, Eucalyptus gamophylla	Very gently undulating mid slope on
H046	HDRAIL		59 124 249				<u> </u>	<u> </u>	<u> </u>				<u> </u>	Acacia tumida, A. citrinoviridis high shrubland over	Creek bed and lower banks.
H009	HDRAIL		97 195 386						<u> </u>			<u> </u>	<u> </u>	Acacia ancistrocarpa open shrubland over Corchorus	Sandy plain
H019	HDRAIL		97 195 386	_	- i				<u> </u>			1 1	<u> </u>	Acacia aneura, Hakea lorea scattered low trees over	Gentle slope on undulating plain of
NYIC110		25	,, -,	-	383							<u> </u>		. Upper: 0 cm, 0 %. Mid: 300 cm, 5 %. Lower: 100 cm, 50	
H018	HDRAIL		97 195 386	-								ii		Acacia aneura scattered low trees and Eucalyptus	Slight depression in very gently
H013	HDRAIL	49 47	97 195 386	5 577					i i			i i	i	Corymbia deserticola scattered low trees over Acacia	Sandy plain
H025	HDRAIL	39 29	59 124 248	8 383			_ i		İ			ii	İ	Acacia inaequilatera, Hakea chordophylla scattered tall	Swale in gently undulating plain.
H015	HDRAIL	33 29	59 124 248	8 383										Hakea chordophylla scattered tall shrubs over Indigofera	Gentle slope on alluvial/colluvial fan.
H024	HDRAIL	35 29	59 124 248	8 383										Hakea chordophylla, Acacia inaequilatera scattered tall	Sandy plain
H031	HDRAIL	37 29	59 124 248	8 383										Eucalyptus gamophylla low open mallee woodland over	Gentle mid-slopes of large (broad)
H054	HDRAIL		59 124 248											Eucalyptus gamophylla scattered low mallees over Hakea	Sandy plain
H053	HDRAIL		59 124 248	-			_ _							Acacia tumida closed scrub over Triodia epactia	Minor drainage dissecting low colluvial
H033	HDRAIL		59 124 248	_										Eucalyptus gamophylla scattered low mallees over Sida	Gentle slope on colluvial spur.
H039	HDRAIL		59 124 248	_										Petalostylis cassioides high open shrubland over Triodia	Slightly lower swale on undulating plain
H036	HDRAIL		59 124 248	-										Eucalyptus gamophylla scattered low mallees over Acacia	Lower slope adjacent to creek and creek
H042	HDRAIL		59 124 248	_										Corymbia hamersleyana scattered low trees over Acacia Corymbia hamersleyana (none in plot), Eucalyptus	Very gently undulating area of alluvial Gently undulating area with many
H032	HDRAIL		59 124 249					<u> </u>				<u> </u>	<u> </u>	Hakea chordophylla scattered tall shrubs over Gossypium	Gently sloping to north. Slightly raised
H041 H017	HDRAIL HDRAIL		59 124 249 59 124 248				-	_	<u> </u>				<u> </u>	Hakea chordophylla, Acacia inaequilatera scattered tall	Gentle slopes on the side of a low rise
H023	HDRAIL		59 124 248					<u> </u>						Eucalyptus gamophylla low open woodland with Hakea	Very gentle slope on colluvial/alluvial
NYIB171		15	3) 12+2+0		383				<u> </u>			1 1	<u> </u>	acacia inequilatera over triodia. Upper: 700 cm, 1 %. Mid:	
NYIA040		23		-	383			i				<u> </u>		hummock grassland of trodia epacta with eucalyptus	Topography: flat ,
NYIA041		31		-	383		İ	İ				iii		hummock grassland of triodia epactia with eucalyptus	Topography: flat ,
NYIA071	NYI	25		3	383		İ	İ	İ			ii	İ	hummock grassland of trodia epacta with eucalyptus	Topography: flat,
NYIA060	NYI	34		3	383									hummock grassland of trodia epacta with acacia	Topography: flat,
NYIA061	NYI	27		3	383									hummock grassland of trodia epacta with acacia	Topography: flat,
NYIA072	1	22			383			_						hummock grassland of trodia epacta with acacia	Topography: flat,
	HDRAIL		59 124 248											Corymbia hamersleyana, Hakea chordophylla scattered	Mid to upper part of a strip of large
NYIC006		22			383			<u> </u>							Topography: flat ,
NYIC045		27		-	383			1 1						acacia scrub over hummock grassland.	Topography: low plains, slope: >5, nw
NYIC001		35		_	383			<u> </u>						. Upper: 700 cm, 1 %. Mid: 300 cm, 3 %. Lower: 150 cm,	Topography: flat ,
NYIC002 NYIC005		40			383 . 383 .			<u> </u>	1 1				<u> </u>	. Opper. 700 cm, 1 %. wild. 300 cm, 3 %. Lower. 130 cm,	
NYIC005 NYIC044		28 42			383 .			<u> </u>	1 1				<u> </u>	. Upper: 600 cm, 2 %. Mid: 400 cm, 5 %. Lower: 130 cm,	Topography: flat , Topography: flat ,
NYIC019		29			383			<u> </u>						. opper. 600 cm, 2 %. ma. 100 cm, 5 %. Lower. 130 cm,	Topography: flat ,
NYIA059		30			383		-1	<u> </u>	<u> </u>			1 1	<u> </u>	hummock grassland of trodia epacta and aristeda	Topography: flat ,
NYIA066		31		-	383			<u> </u>				1 1		hummock grassland of trodia epacta with acacia fly swat	Topography. Hat ,
NYIB053		24			379		_	<u> </u>				ii		Mixed Acacias over Cenchrus.	Topography: flat,
NYIA067		23			383		i	i i	i i			i i	i	hummock grassland of trodia epacta with hakea lorea .	Topography: flat ,
NYIC107		23		3	383		i_	İİ	İ			ii	ĺ	. Upper: 0 cm, 0 %. Mid: 250 cm, 5 %. Lower: 100 cm, 45	
NYIA065	NYI	15		3	383			İI	i i			İ		hummock grassland of trodia epacta with acacia fly swat.	Topography: flat,
FML01		49 29	59 123 246	5 380										Corymbia hamersleyana low open woodland over Acacia	Sandy plain
FMN-MA			59 123 246											Acacia coriacea scattered tall shrubs over Acacia	Sandy plain
FMR09	1		59 123 246											Acacia coriacea tall open shrubland over Bonamia rosea,	Gentle slope to southeast on low rise of
FML-MA			59 123 246		-									Eucalyptus socialis, Corymbia hamersleyana low open	Sandy plain
FML-MB			59 123 246		-		_						<u> </u>	Eucalyptus gamophylla scattered low mallees over Acacia	Stony plain on west side of low hill
FMN02			59 123 246		-		<u> </u>							Corymbia hamersleyana scattered low trees over Acacia	Broad flowline between the end of a low
FMN24			59 123 246				_							Acacia inaequilatera, Grevillea wickhamii scattered tall	Gently sloping, west-facing lower
	2491		59 123 245	_					11				<u> </u>	Corymbia hamersleyana, Acacia pruinocarpa scattered	Flat valley floor adjacent to creek
	2490		59 123 245		270		_		11				<u> </u>	Corymbia hamersleyana scattered low trees over Acacia	Plain Tonography: flat
NYIB034	INYI	24		13	379									Triodia epactia with emergent A. pruinocarpa and mixed	Topography: flat,

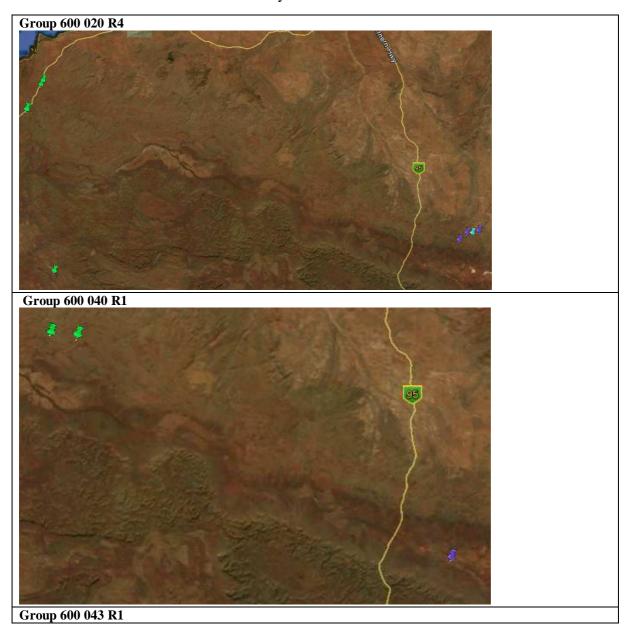
site	PROJ	spp	50 100	200 400 600 1	nnh	data										VEGETATION	HABITAT
Site	TROS	БРР	30 100	200 100 000 1		0.0000	0.2478	0.49	56 0.	7433	0.9911	1.2389	1.4867	1.7344	1.9822	VEOLITIIOI V	
						I	1	1			1	1	1	1	1	1	
NYIB035	NYI	41			379	 					11	I	I	<u> </u>	<u> </u>	E. victrix and Corymbia hamersleyana over A.	Topography: flat,
NYIA002		40		-	383		I		· I —		11				<u> </u>	. Upper: 500 cm, 2 %. Mid: 400 cm, 7 %. Lower: 100 cm,	1 0 1 0
NYIA003		28		-	383	<u> </u>			<u> </u>		11				<u> </u>		Topography: flat,
NYIC041		37		-	383	<u> </u>		·	<u> </u>		11				<u> </u>	. Upper: 600 cm, 2 %. Mid: 400 cm, 5 %. Lower: 130 cm,	
NYIC043		31		-	383	<u> </u>			i		11				<u> </u>	. Upper: 600 cm, 1 %. Mid: 400 cm, 10 %.	Topography: flat,
NYIA006		33		-	379				i		ii			1 1		hummock grassland of trodia epacta with tall shrubland of	
NYIC039		31			577				i		ii i			ii			Topography: flat ,
NYIC040		34			383			i	i		ii i			ii			Topography: flat ,
NYIA004		31		-	379						ii i			ii		Hummock grassland of triodia epactia and acacia	Topography: flat , slope: nonE
NYIA044	NYI	36			379			1	i		ii			ii	i	hummock grassland of trodia epacta with isolated acacia	Topography: flat ,
NYIA045	NYI	34			383			i	i		ii			ii	i	hummock grassland of triodia epacta and eragrostis	Topography: flat ,
NYIA057	NYI	43			383		·	i	_ i					İİ	İ	hummock grassland of trodia austrostipa with hakea lorea	Topography: flat ,
NYIA054	NYI	28			567?				T İ		İİ			ii	İ	hummock grassland of trodia epacta with isolated acacia	Topography: flat,
NYIA056	NYI	36			379				i i					İİ	İ	hummock grassland of trodia epacta with isolated acacia	Topography: flat,
NYIA069	NYI	31			379			_						İİ	İ	hummock grassland of trodia epacta with corymbia	Topography: flat,
FMG46	2490	46	29 59	123 245 379							ii			İİ	İ	Eucalyptus xerothermica, Corymbia hamersleyana	Broad drainage area within loamy plain.
NYIB052	NYI	39			577									İ		Triodia longiceps grassland with A. pyrifolia, Hakea lorea	Topography: flat,
NYIC018	NYI	52			577				_					İ			Topography: flat,
NYIB051	NYI	36		:	384?				.		П					mixed herb and triodia longiceps with emergent Acacia.	Topography: flat,
NYIC015	NYI	24		:	265			_			П					. Upper: 600 cm, 2 %. Mid: 400 cm, 5 %. Lower: 140 cm,	Topography: dune swale, slope: swale,
NYIC075	NYI	26		:	379			.								. Upper: 500 cm, 2 %. Mid: 400 cm, 15 %. Lower: 150	Topography: Dune swale,
NYIA031	NYI	11		:	324											tussock grassland of Enneapogon polyphyllus with	Topography: flat,
NYIB091	NYI	18		[:	276											A pruinocarpa and Corymbia hamersleyana over	Topography: flat,
NYIB030	NYI	8		1	284	<u></u>										Acacia sclerosperma and A. pruinocarpa and hakea lorea	Topography: flat,
NYIC064	NYI	17			273				.							5.	Topography: slight slope, slope: >5, w
NYIB082	NYI	19			379											Mixed acacias over Cenchrus ciliaris.	Topography: flat,
NYIC062	NYI	19			577				_								Topography: flat,
NYIB074	NYI	22		:	379											Emergent hake lorea, acacia pachyacria and Petalostylis	Topography: flat,
NYIB087	NYI	23			424			_								Mixed Acacias over Cenchrus ciliaris. Upper: 700 cm, 2	Topography: flat, slope: o
NYIB089	NYI	11		-	145											Acacia shrubland with emergent Corymbia hamersleyana	Topography: flat,
NYIB005	NYI	31		_	379											Corymbia hamersleyana over Acacia inaequilatera over	Topography: flats,
NYIB006		33		-	384											corymbia hamersleyana over spiny oblong over trioda.	Topography: flat,
NYIB007	NYI	32			384		_									acacias over grass . Upper: 700 cm, 6 %. Mid: 180 cm, 3	Topography: flat,
NYIB016		37		-	171?			_			<u> </u>					acacia hard tree and acacia tree and hakea lorea over	Topography: flowline, flat,
H044	HDRAIL			124 250 385												Atalaya hemiglauca (none in plot), Acacia dictyophleba	Large sand dune. Immediately adjacent
	HDRAIL		29 59	124 250 385												Acacia dictyophleba scattered tall shrubs over	East-west trending low sand dune.
NYIC014		21		-	385							1					Topography: dune ridge, slope: ridge,
NYIC073	-	19		-	385		_					1					Topography: dune ridge,
NYIC072		16		-	385			.									Topography: sandune crest,
NYIC114		13		-	385											. Upper: 0 cm, 0 %. Mid: 200 cm, 1 %. Lower: 50 cm, 15	Topography: dune system,
NYIC118		17		-	385											. Upper: 0 cm, 0 %. Mid: 250 cm, 2 %. Lower: 150 cm, 15	1 0 1 1
NYIC122		15		-	385			. _	_							. Upper: 0 cm, 0 %. Mid: 300 cm, 0.5 %. Lower: 100 cm,	Topography: sand dune, slope: 0
NYIC074		31		-	385				.								Topography: dune ridge,
NYIC119	NYI	15		:	385							_				_ . Upper: 0 cm, 0 %. Mid: 300 cm, 5 %. Lower: 80 cm, 35	Topography: sand dune, slope: 0

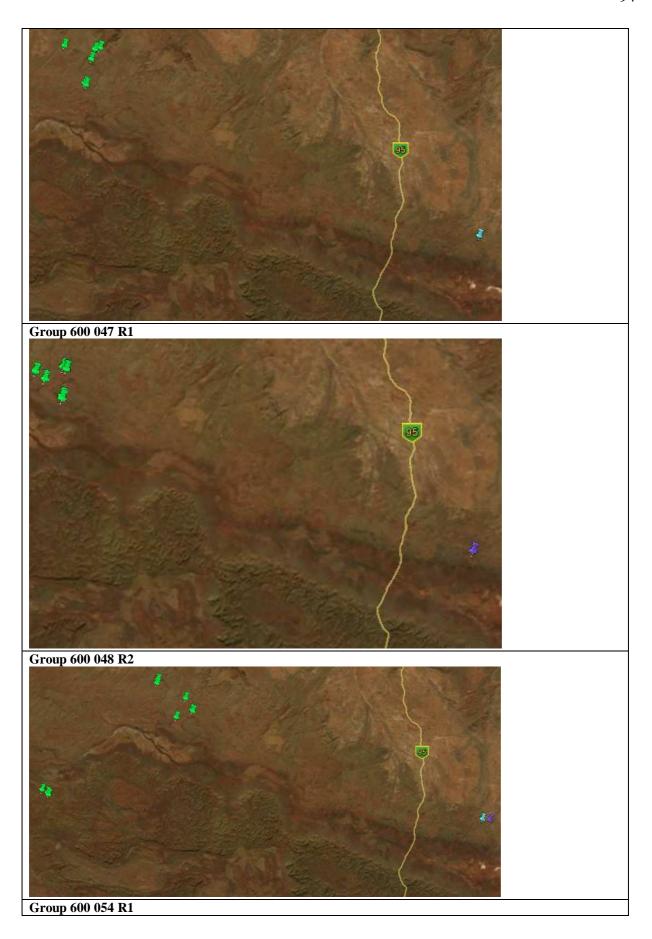
Appendix 4 Distribution of NYI sites with Regional Reference sites.

Organised by Group 600. Blue, pale blue and while place markers NYI sites confidence level reasonable, moderate and poor respectively.

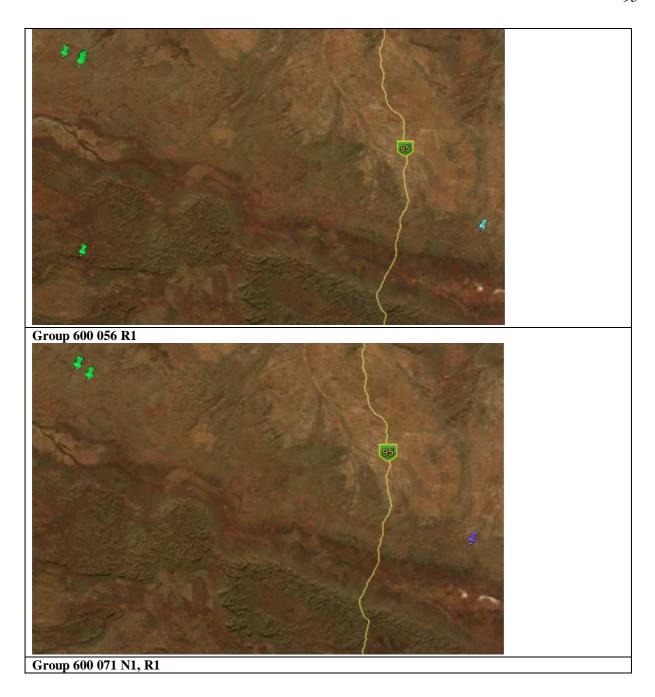
Green place markers are reference sites

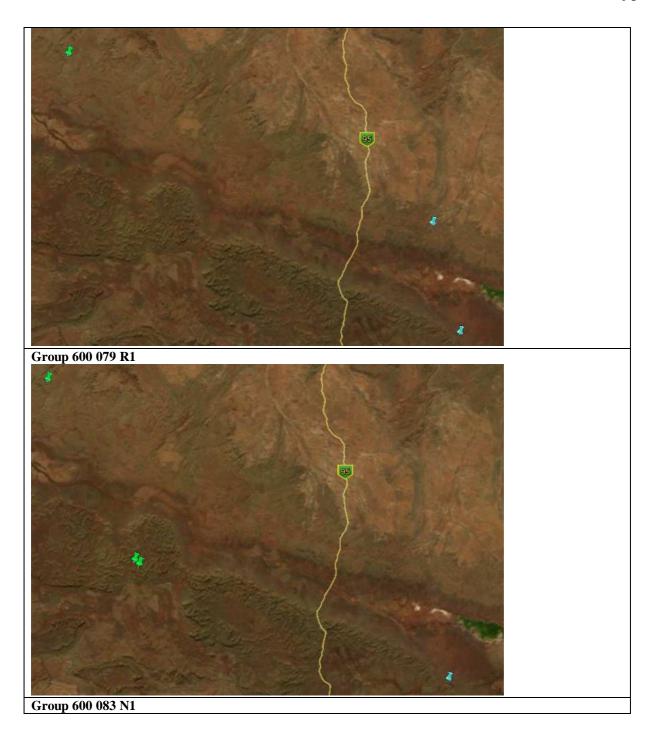
of sites in N and R datasets indicated by N1 and R1 etc.



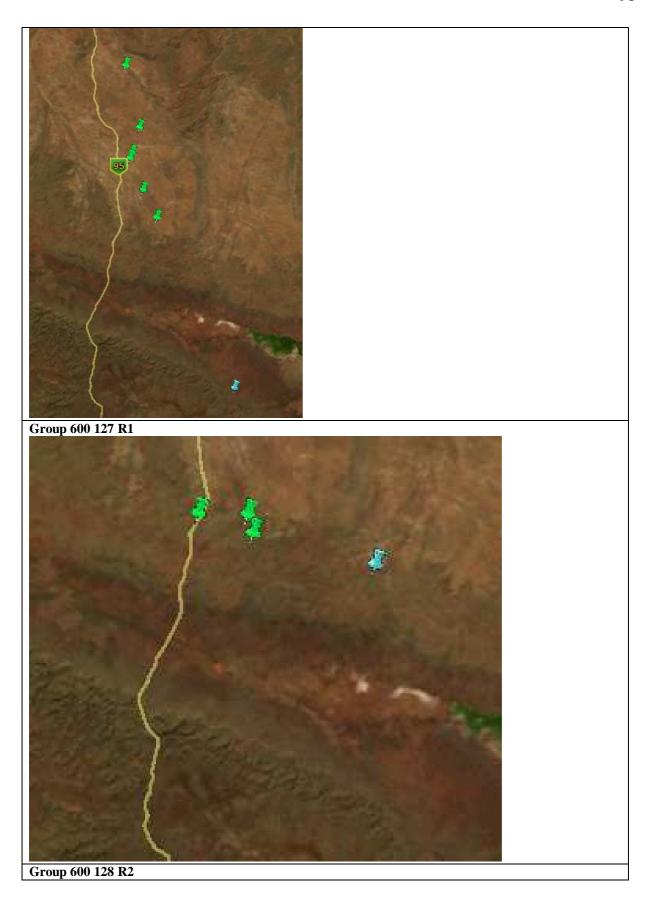


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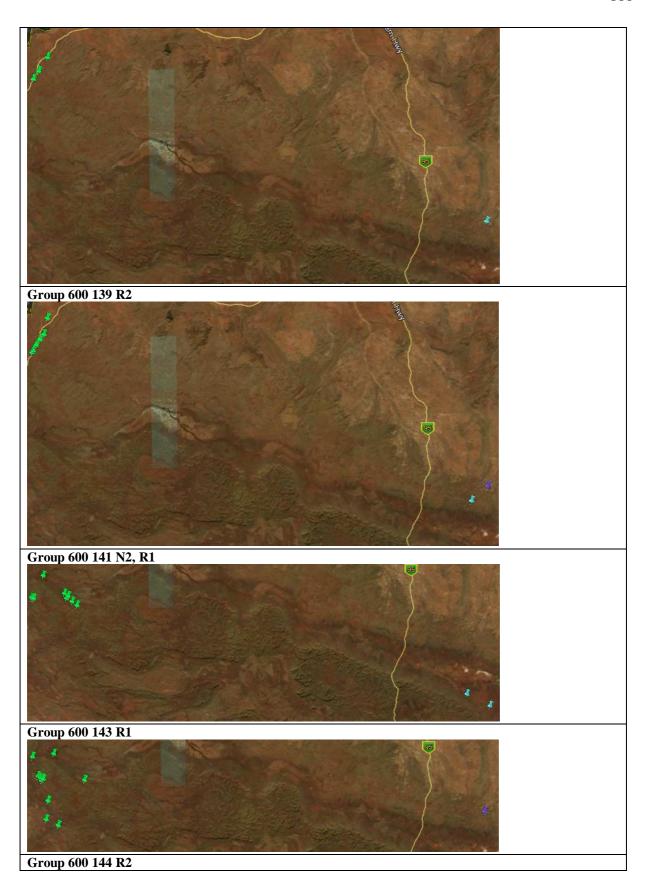








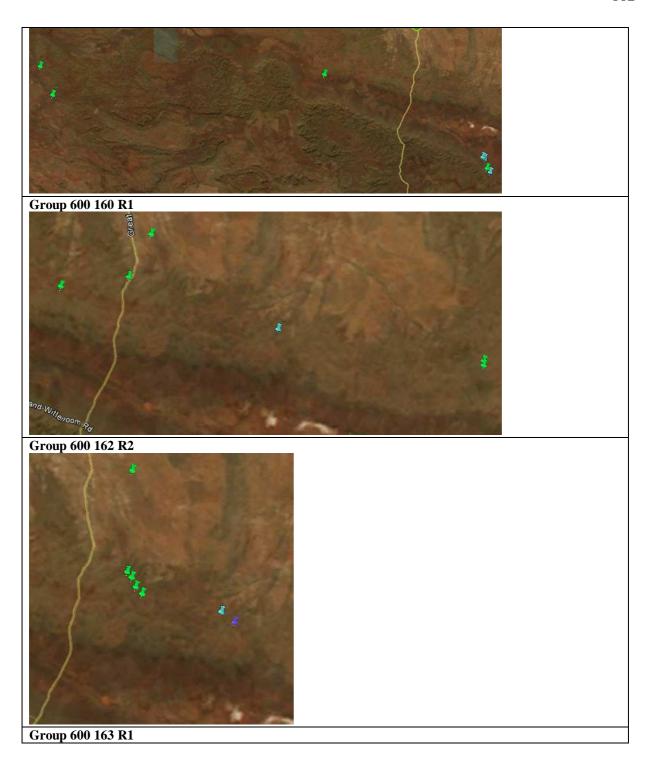


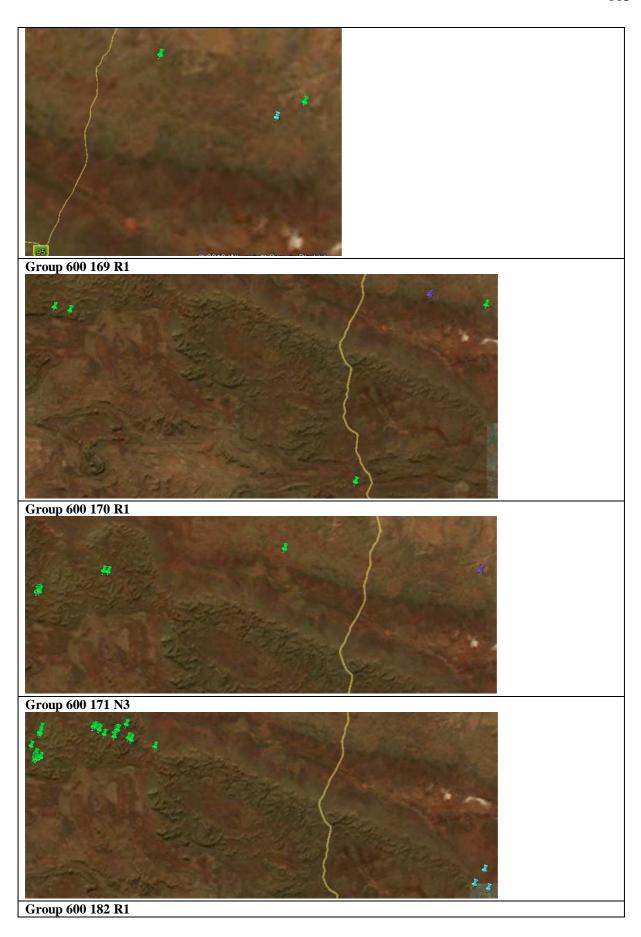


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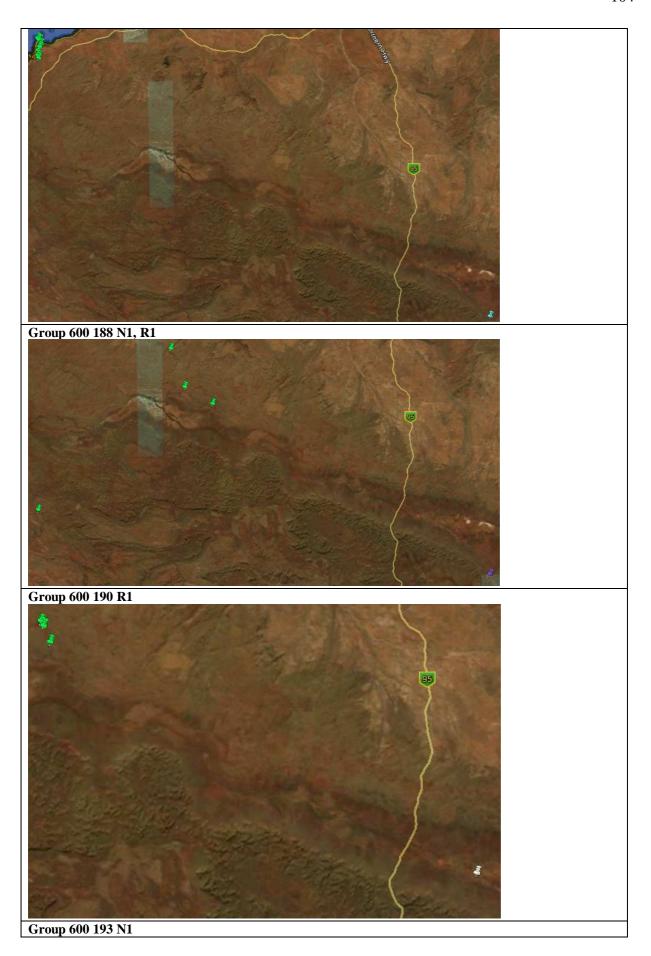


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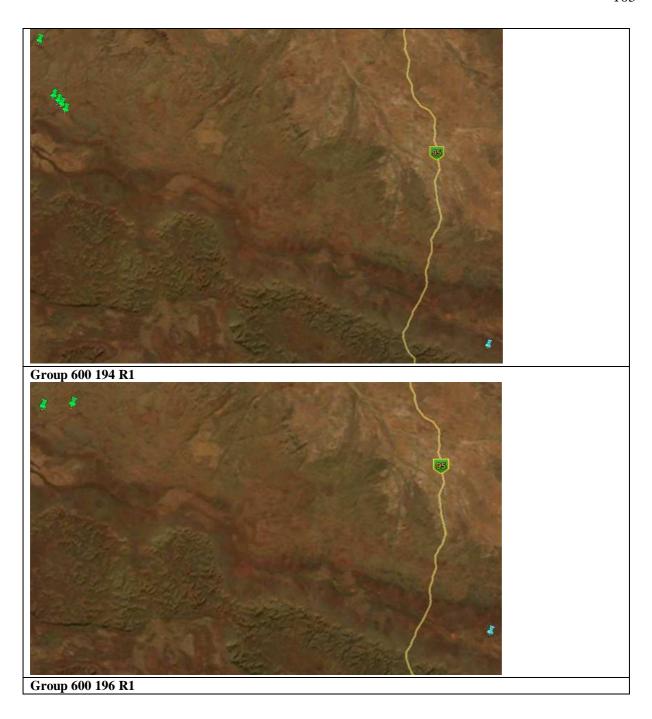


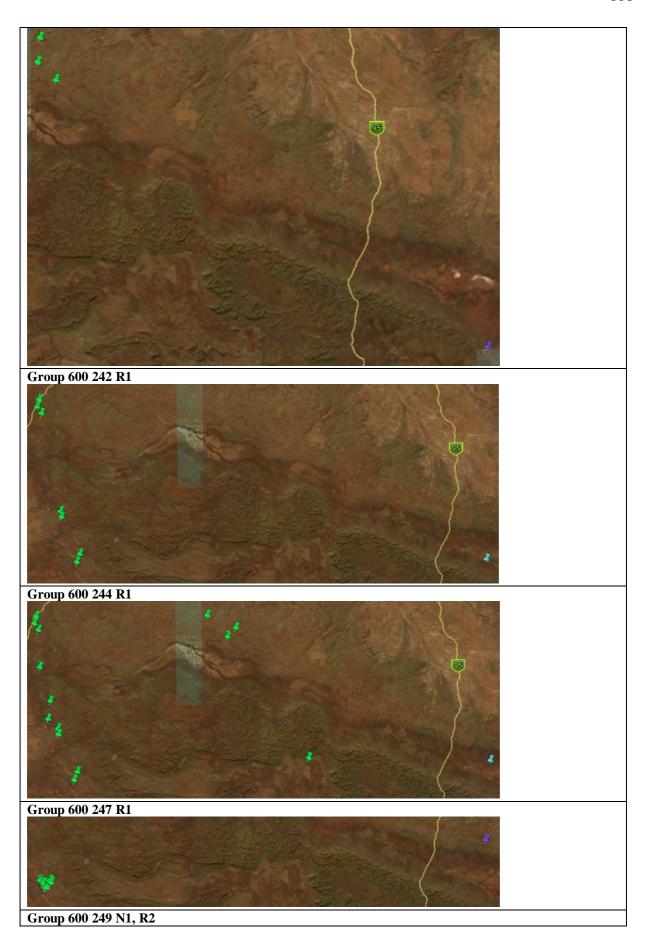


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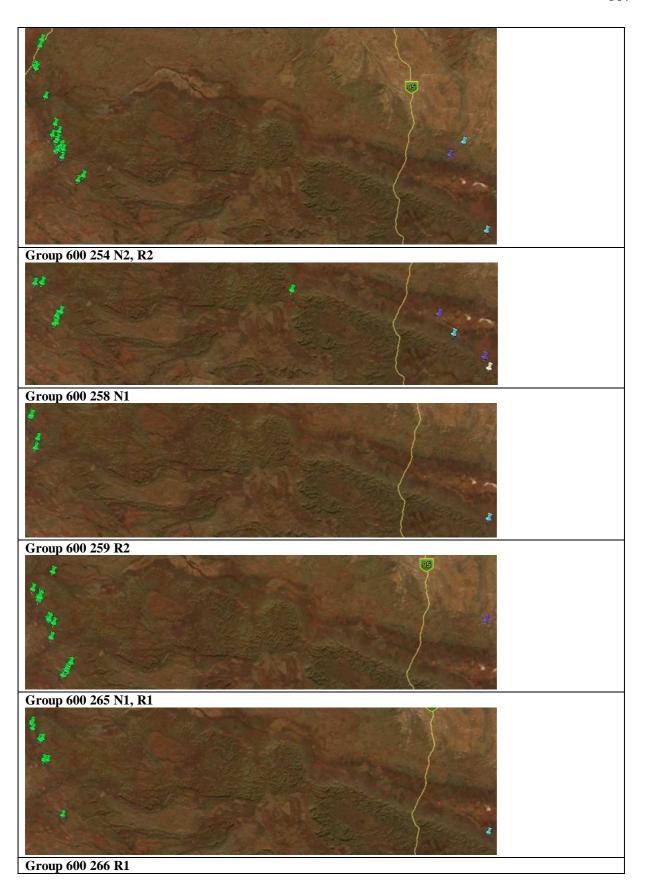


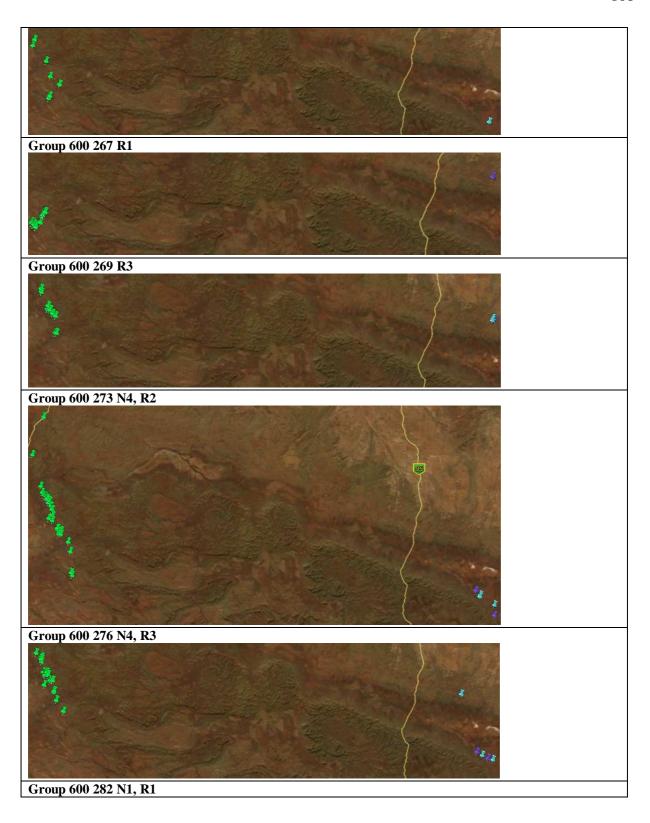
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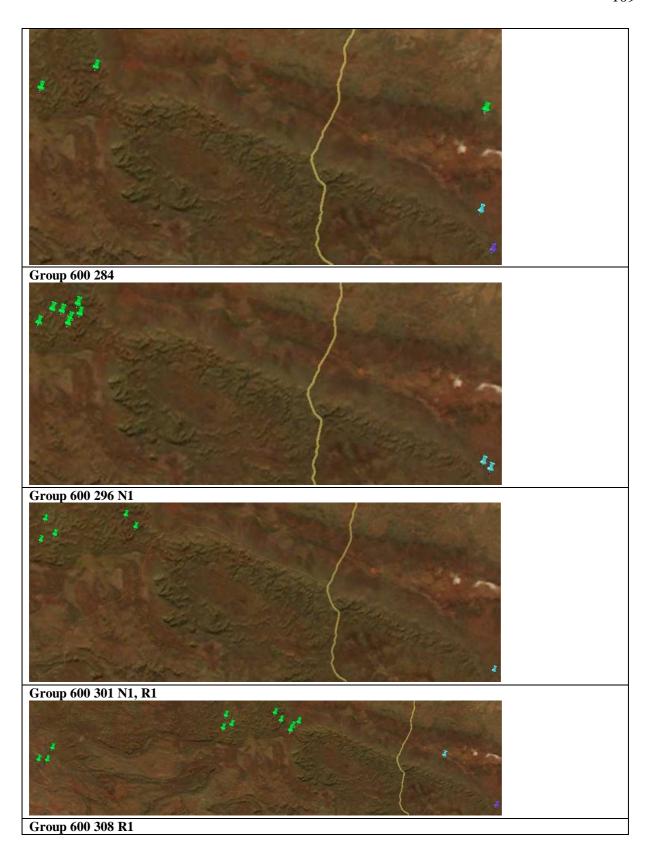


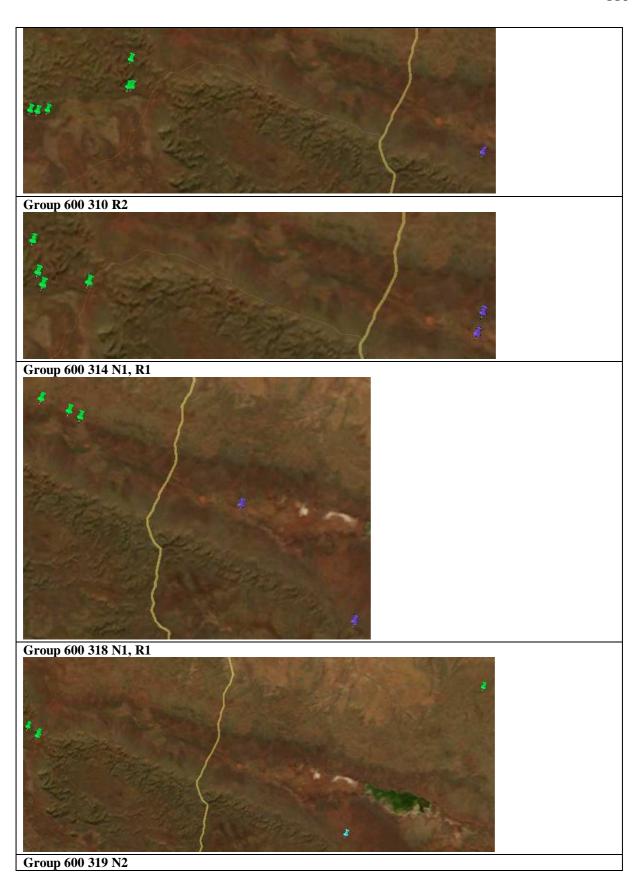


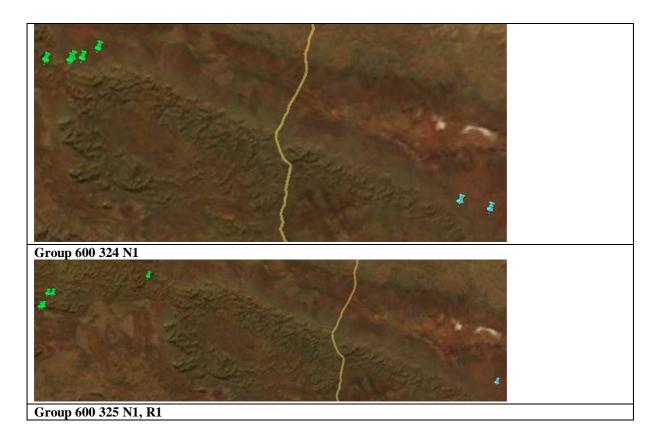
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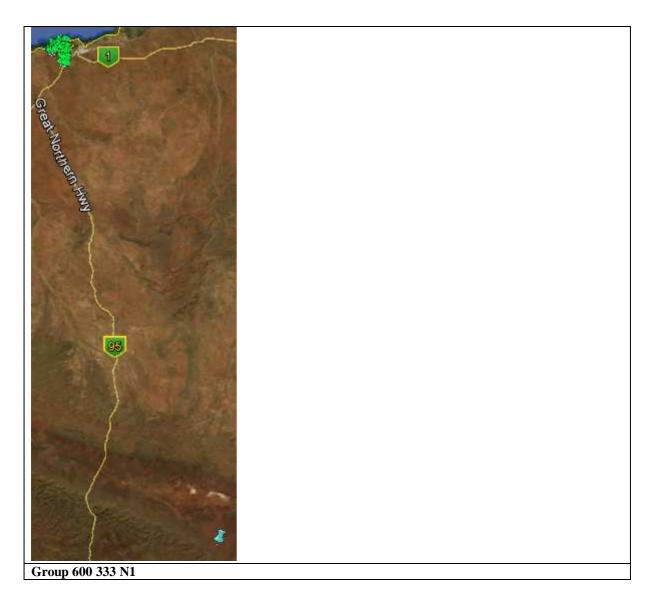


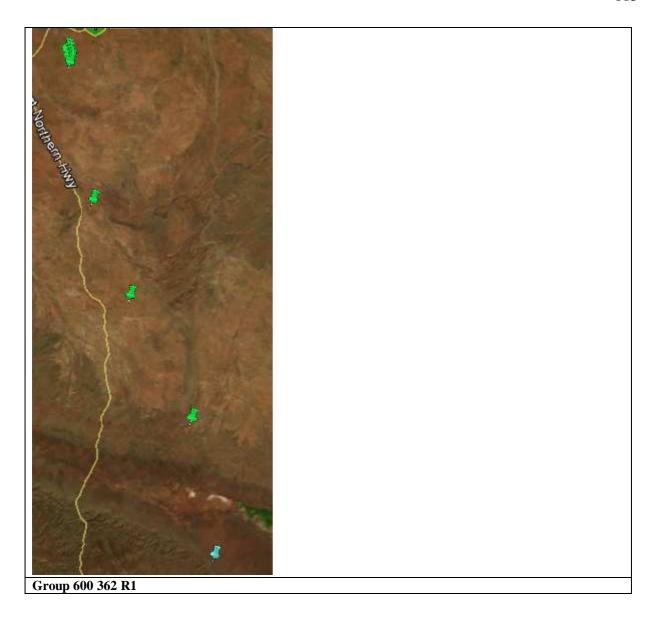


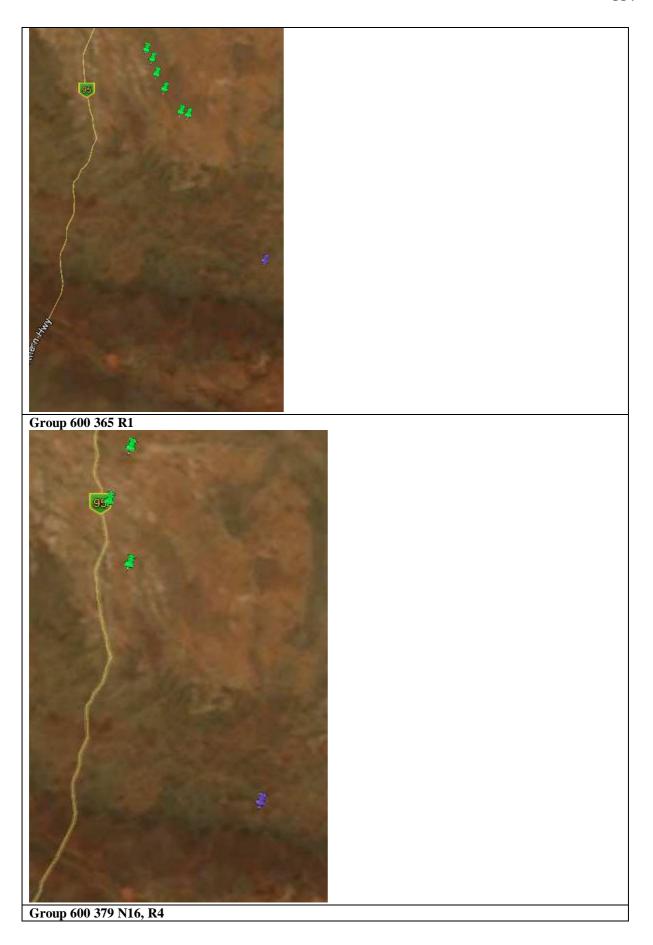




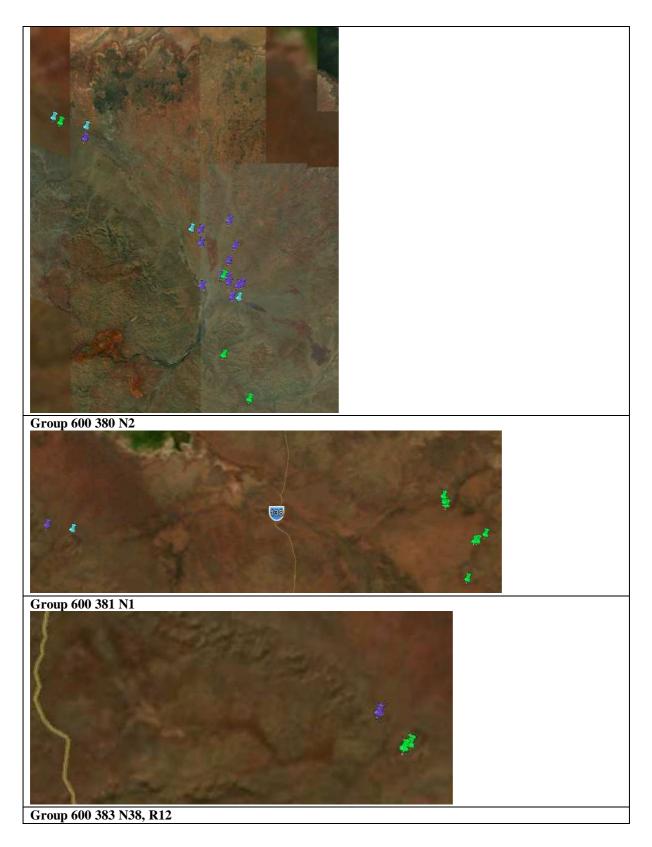


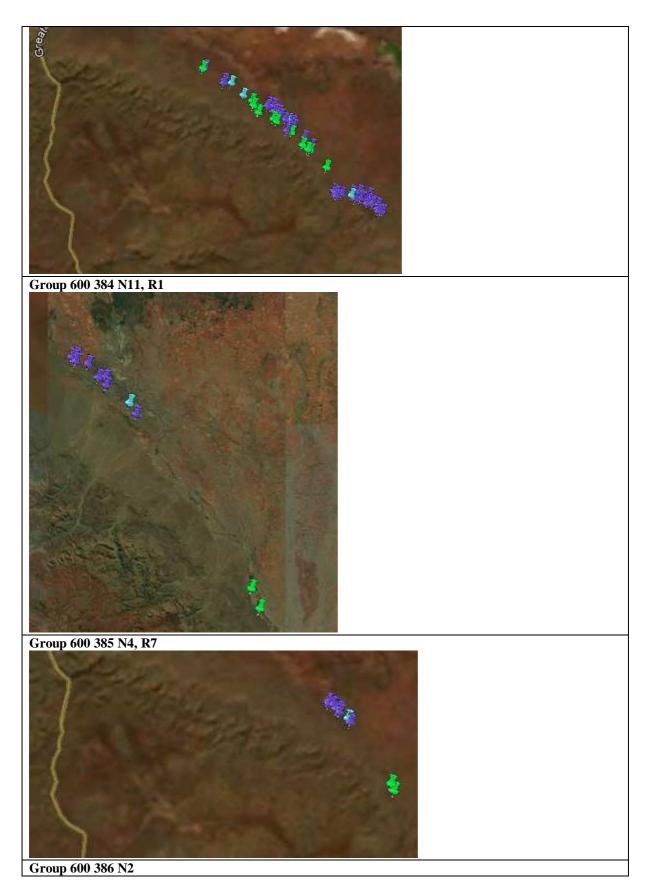


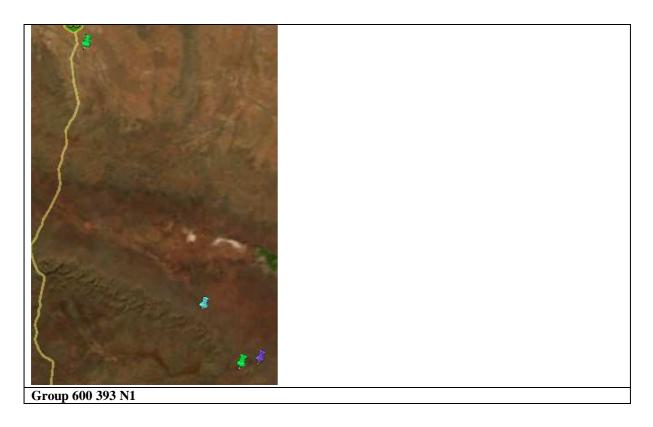


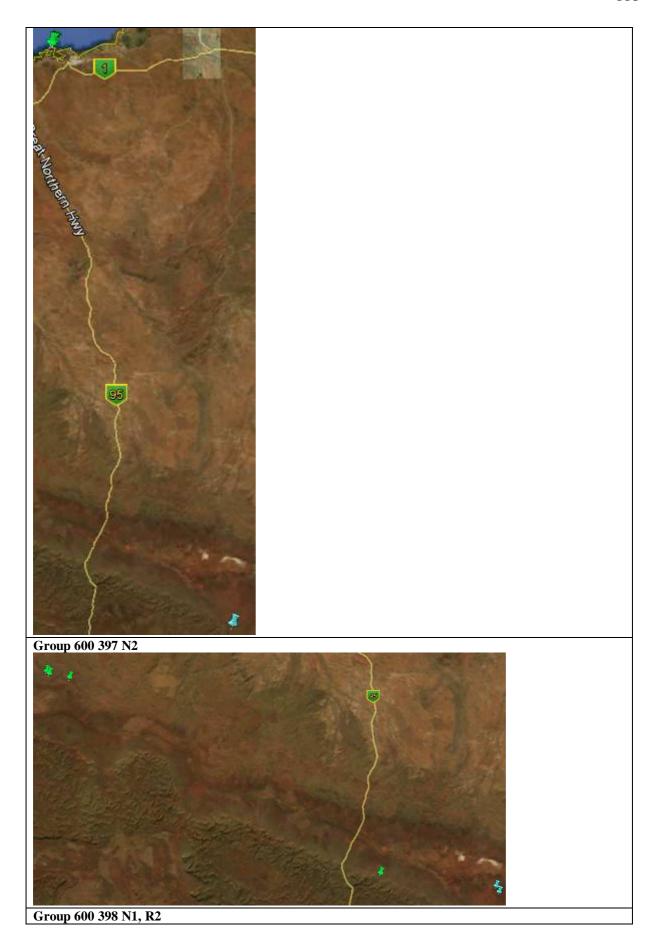


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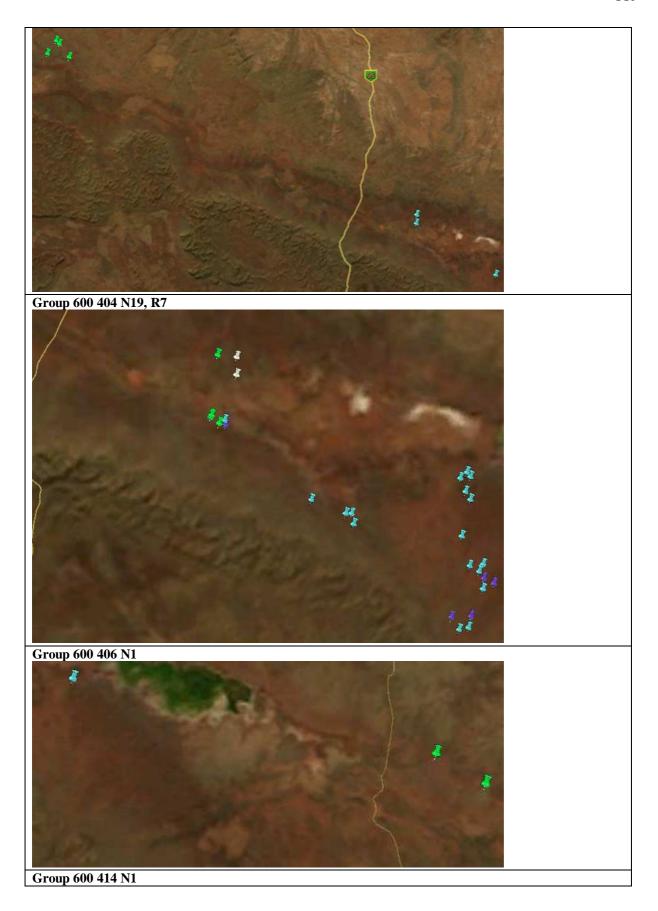




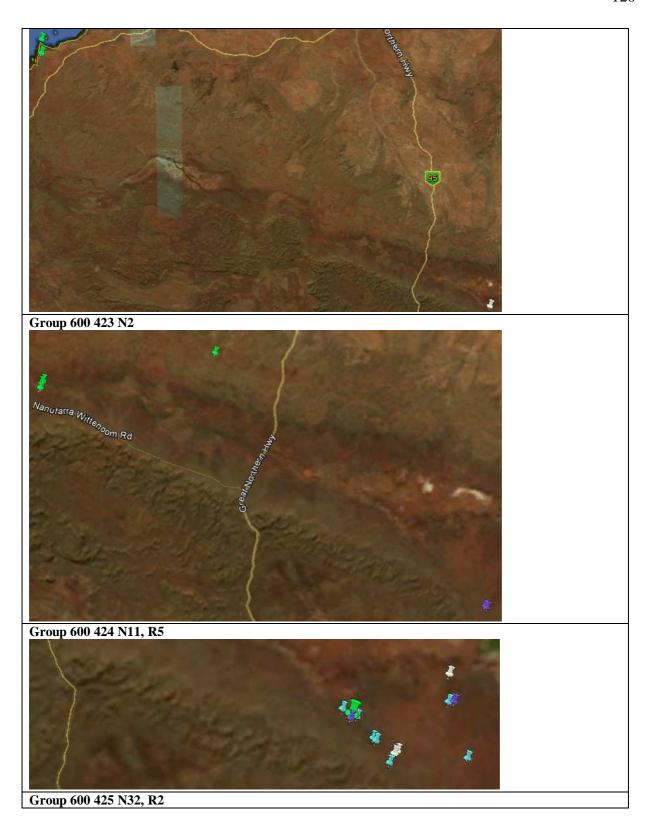


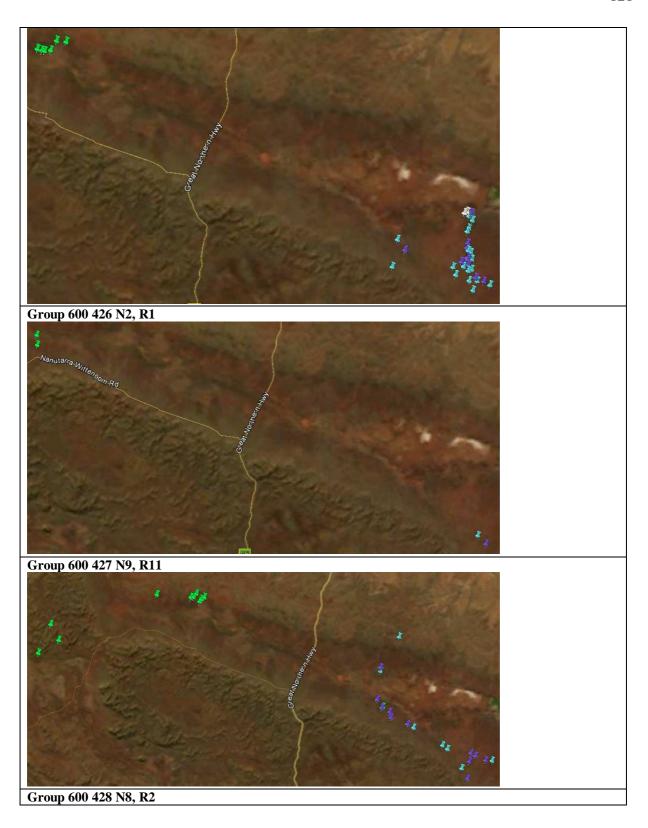


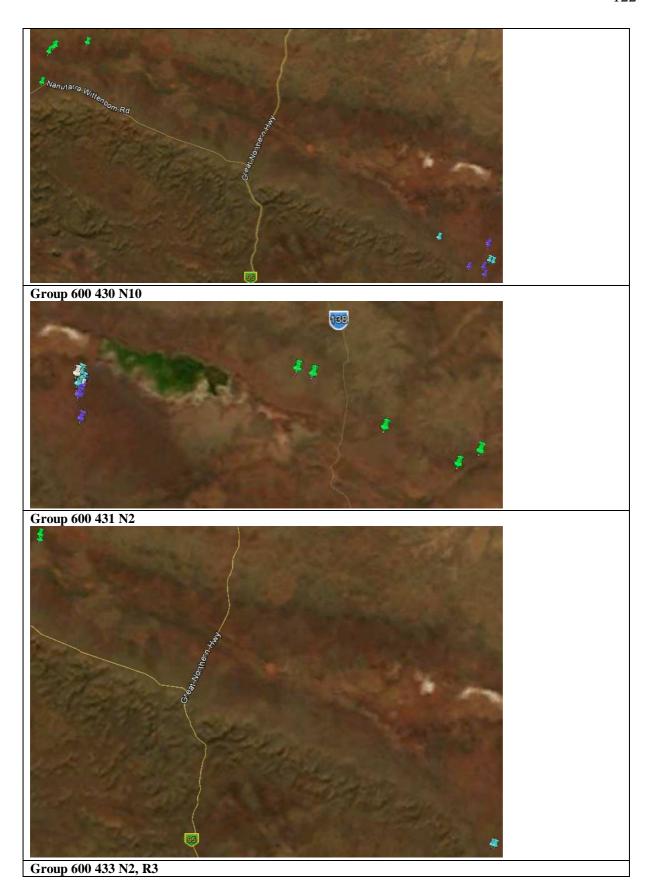
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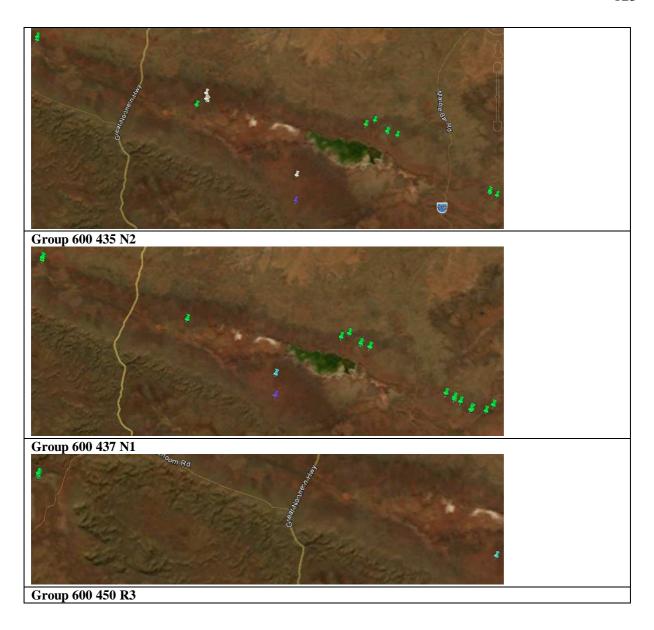


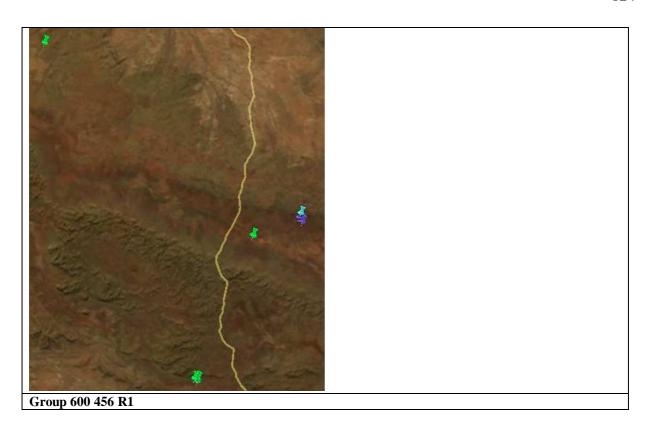
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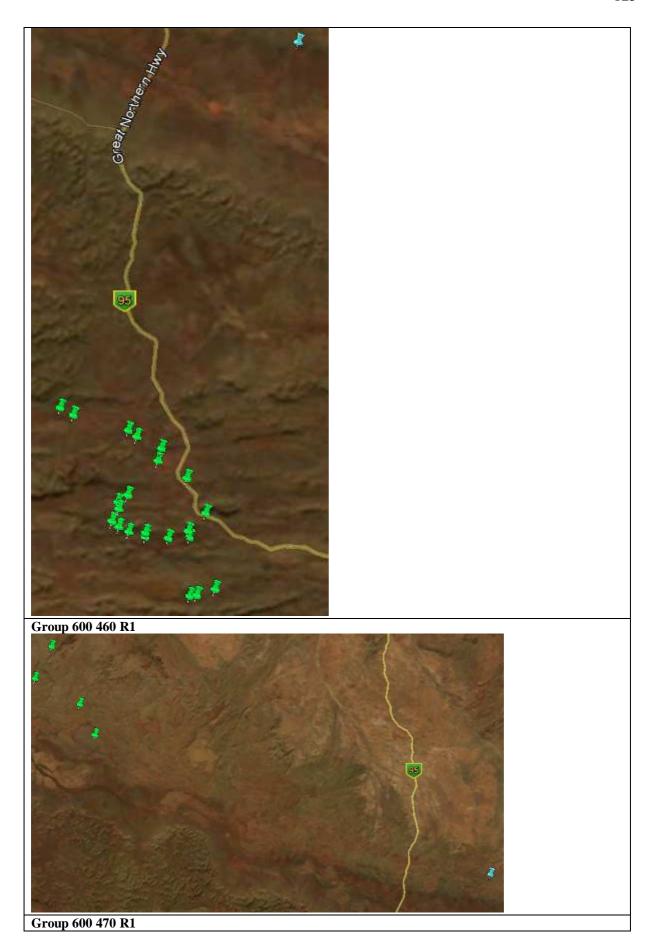






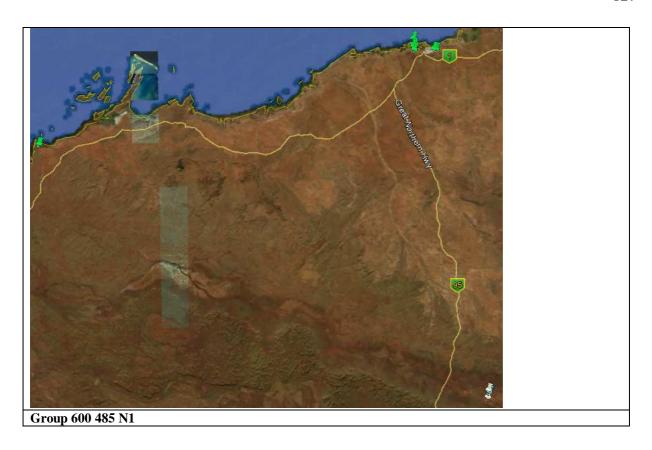


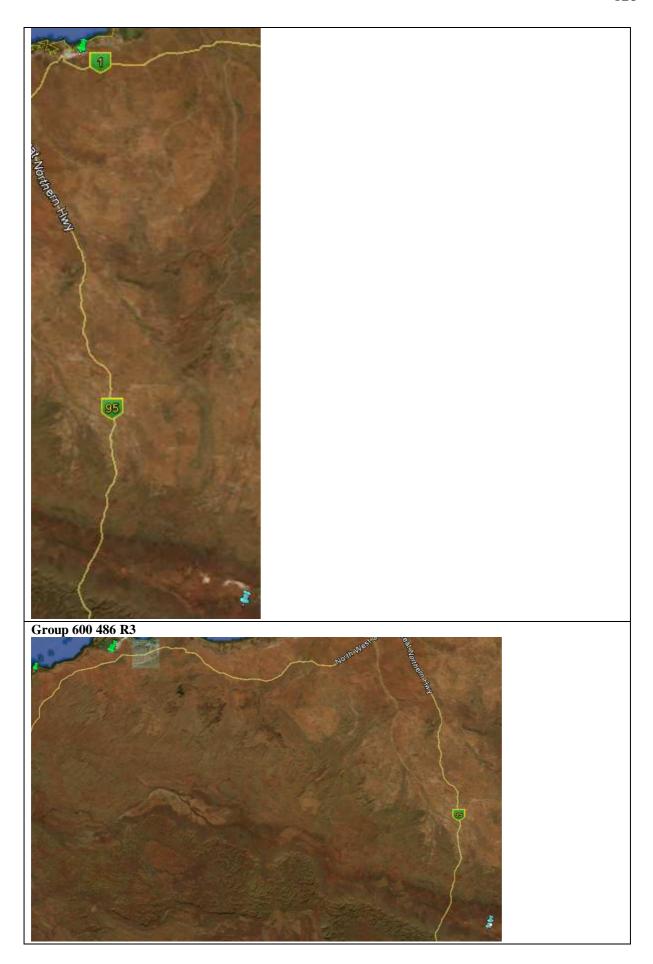




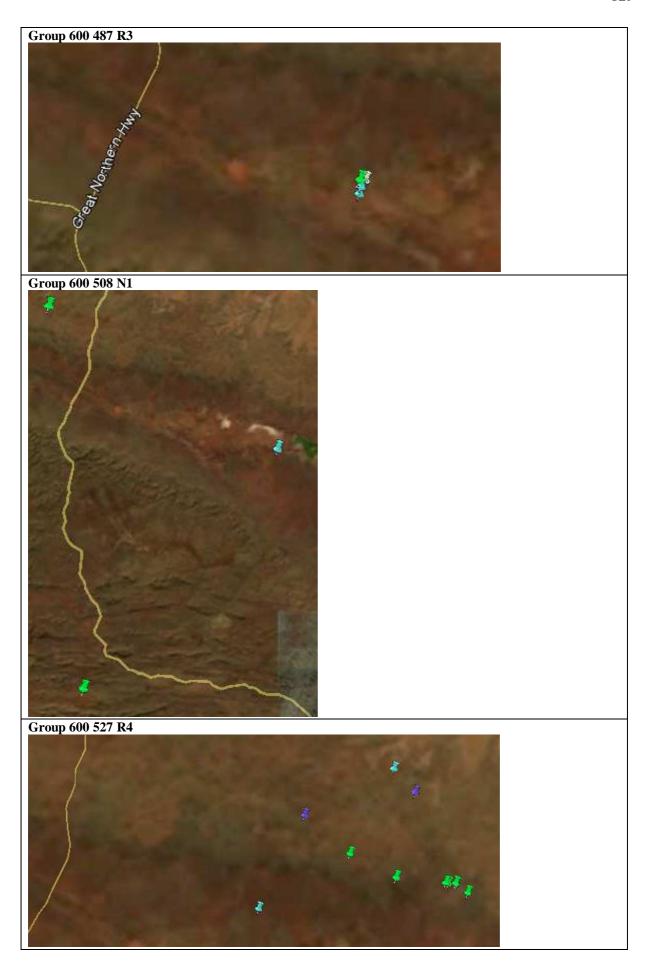
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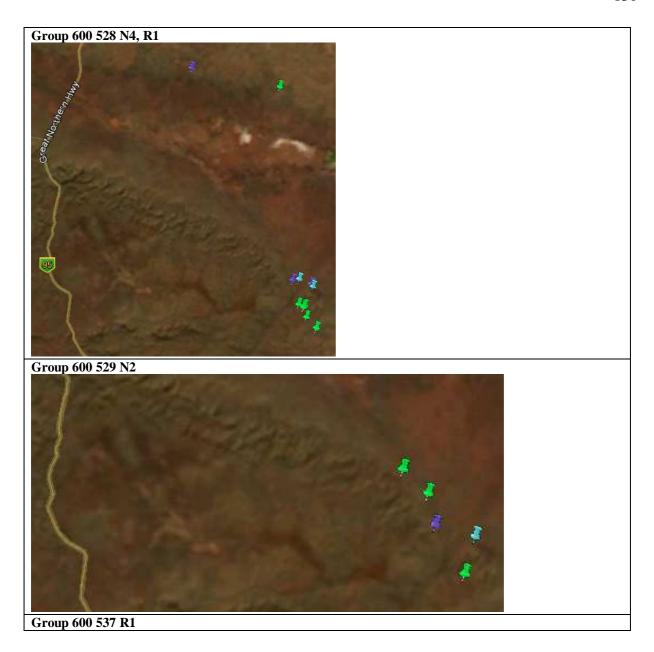


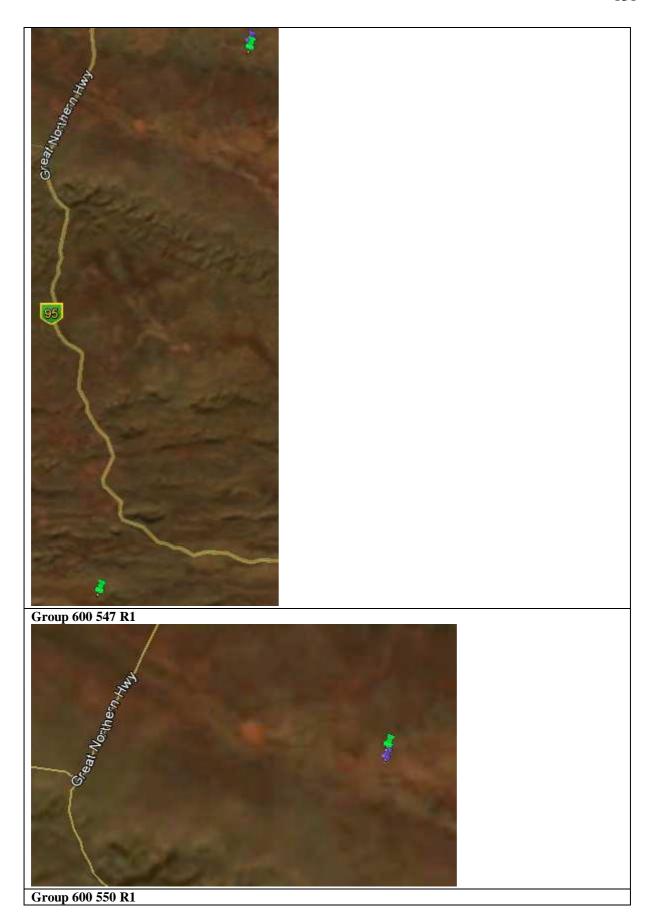


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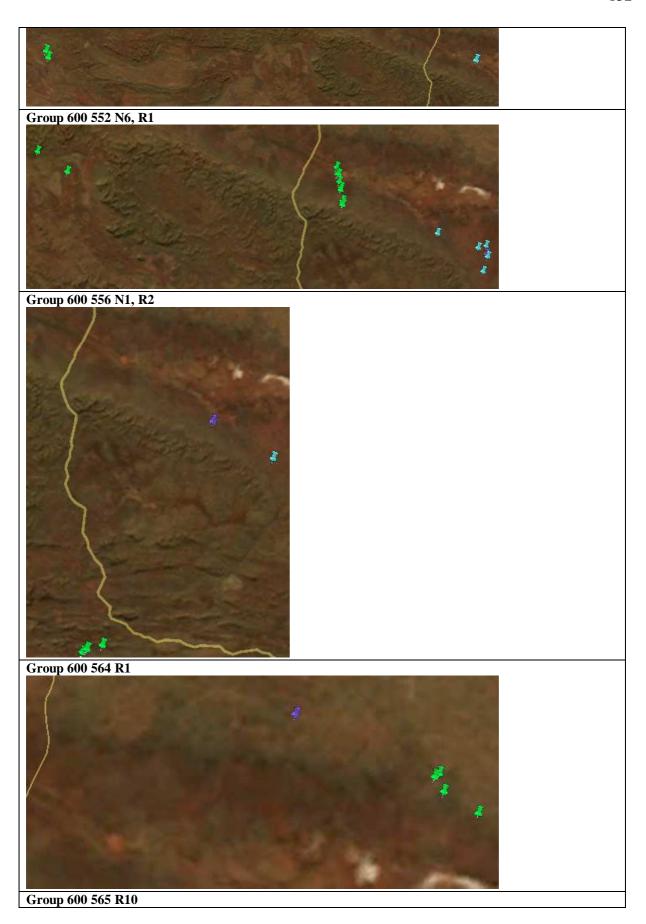


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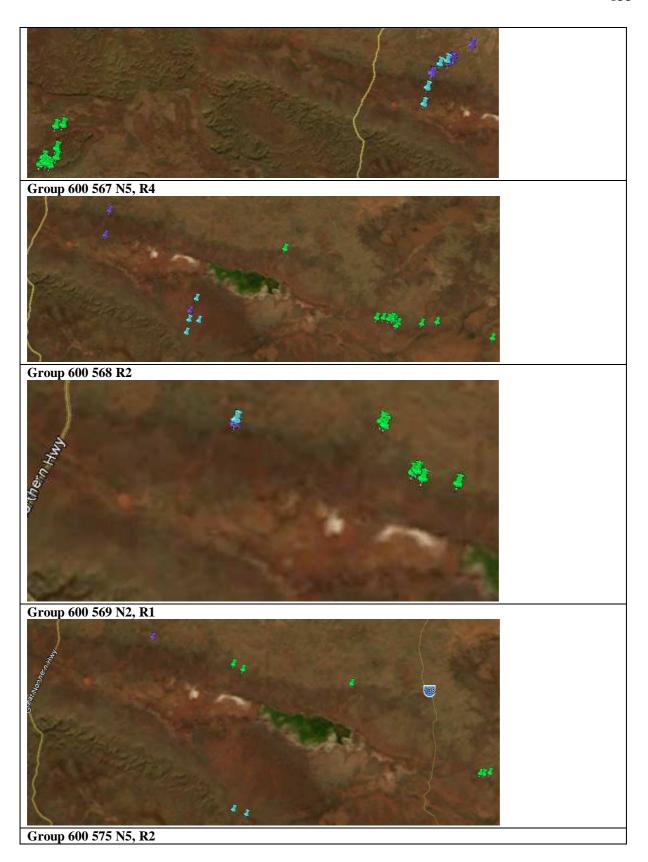


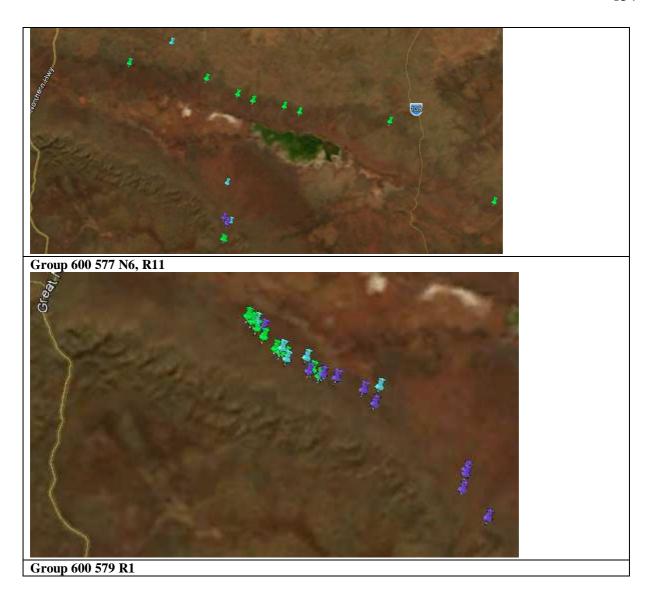


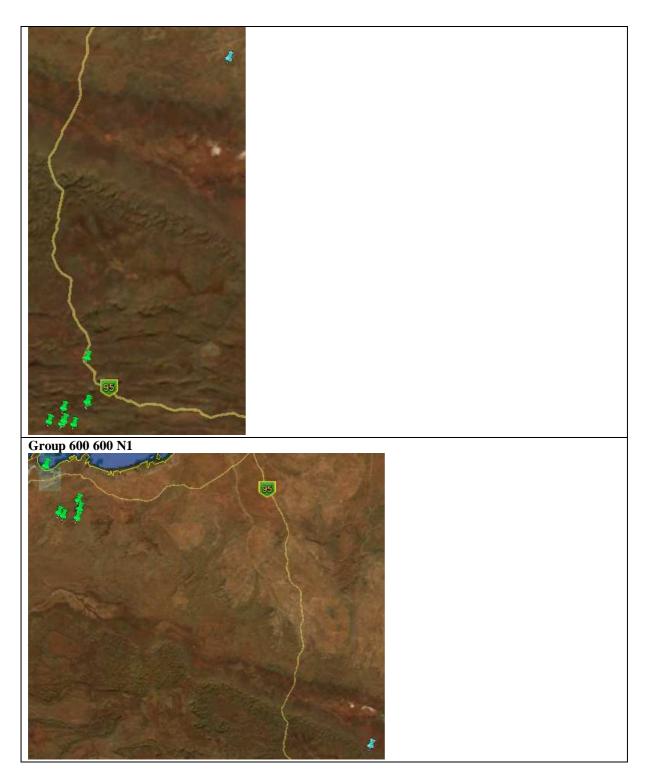
E.A. Griffin & Associates with M.E. Trudgen & Associates



E.A. Griffin & Associates with M.E. Trudgen & Associates







Appendix 5. List of 600-group units Nyidinghu sites assigned to with occurrence in local physiographic units, number of sites assigned to a unit and relative distance to nearest reference site in the group

Notes. The distance away of the closest site in the reference data set to a Nyidinghu site assigned to the same 600-group unit is given in degrees in Table 5.

600-group level group of the regional classification	Nyidinghu data group	Physiographic occurrence of Nyidinghu sites	REFERENCE SITES Local or Local & Away or Away or Nearby (If localised or nearby previous sites located on)	Number of sites in Nyidinghu data
020	R4	Chichester Plateau	Away	4
040	R1	Hamersley alluvial, Fortescue Valley	Away	1
043	R1	Chichester Plateau	Away	1
047	R1	Chichester Plateau	Away	1
048	R2	Chichester Plateau	Away	2
054	R1	Chichester Plateau	Away	1
056	R1	Chichester Plateau	Away	1
071	R1, N1	Chichester Plateau, Hamersley alluvial	Away	2
079	R1	Hamersley slopes	Away	1
083	N1	Chichester Plateau, Hamersley slopes	Away	2
104	R1	Chichester Plateau	Away	1
138	R1	Chichester Plateau	Away	1
139	R2	Chichester Plateau	Away	2
141	R1, N2	Weeli Wolli Fan	Away	2
143	R1	Chichester Plateau	Away	1
144	R2	Chichester Plateau	Away	2
147	N12, R9	Weeli Wolli Fan	Away	15
148	N3, R4	Weeli Wolli Fan, Chichester Plateau	Away	5
171	N3	Weeli Wolli Fan, Hamersley slopes	Away	3
182	R1	Weeli Wolli Fan	Away	1
188	R1, N1	Weeli Wolli Fan	Away	1
190	R1	Fortescue Valley	Away	1
193	N1	Hamersley alluvial	Away	1
194	R1	Fortescue Valley	Away	1
196	R1	Weeli Wolli Fan	Away	1
242	R1	Hamersley alluvial	Away	1
247	R1	Chichester Plateau	Away	1
249	N1, R2	Chichester Plateau,	Away	3

	1	Homonolov slopes	1	1
254	NO DO	Hamersley slopes	A	4
254	N2, R2	Hamersley alluvial,	Away	4
250	271	Fortescue Valley		
258	N1	Hamersley alluvial	Away	1
259	R2	Chichester Plateau	Away	1
265	R1, N1	Weeli Wolli Fan	Away	1
266	R1	Weeli Wolli Fan	Away	1
267	R1	Chichester Plateau	Away	1
269	R3	Chichester Plateau	Away	3
273	N4, R2	Weeli Wolli Fan,	Away	5
		Hamersley alluvial		
276	N4, R3	Weeli Wolli Fan,	Away	5
		Chichester Plateau		
284	N1?	Weeli Wolli Fan	Away	2
296	N1	Weeli Wolli Fan	Away	1
301	N1, R1	Hamersley slopes,	Away	2
		Hamersley alluvial,		
		(edge FV)		
308	R1	Hamersley alluvial	Away	1
310	R2	Fortescue Valley	Away	2
318	N1, R1	Weeli Wolli Fan	Away	1
324	N1	Weeli Wolli Fan	Away	1
325	N1, R1	Weeli Wolli Fan	Away	1
393	N1	Weeli Wolli Fan	Away	1
414	N1	Weeli Wolli Fan	Away	1
423	N2	Weeli Wolli Fan	Away	2
437	N1	Weeli Wolli Fan	Away	1
456	R1	Chichester slopes	Away	1
484	R3	Fortescue Valley	Away	3
485	N1	Weeli Wolli Fan	Away	1
486	R3	Fortescue Valley	Away	3
550	R1	Hamersley alluvial	Away	1
565	R10	Chichester Plateau,	Away	10
		Fortescue Valley,		
		Chichester slopes		
579	R1	Chichester Plateau	Away	1
600	N1	Weeli Wolli Fan	Away	1
556	N1, R2	Weeli Wolli Fan,	Away -	2
		Hamersley alluvial		
131	N7, R2	Weeli Wolli Fan,	Away (AB)	2
398	N1, R2	Weeli Wolli Fan,	Away (CP)	3
		Chichester slopes		
319	N2	Weeli Wolli Fan	Away - (HS/FV)	2
244	R1	Chichester slopes	Away (of which 1	1
			in Ham St flats)	
170	R1	Chichester Plateau	Away & Local+	1
			(CP)	
282	N1, R1	Weeli Wolli Fan,	Away & Nearby	2
		Hamersley slopes	(CP)	
333	N1	Hamersley alluvial	Away & Nearby	1
	110 75		(CP/AP)	
155	N3, R2	Weeli Wolli Fan	Away & Nearby+	4
			(CS)	
577	N6, R11	Weeli Wolli Fan,	Close (adjacent)	13
507	D.1	Hamersley alluvial	4 (777) 6 6	
537	R1	Chichester Plateau	Away (HR) & Close	1
5.47	D1	F 37, 11	(adjacent) &	1
547	R1	Fortescue Valley	Close (adjacent)	1

			(FV)	
473	R2	Chichester Plateau	Close (CP)	2
527	R4	Chichester slopes	Close (very) (CP)	4
		Chichester Plateau	(11)	
487	R3	Fortescue Valley	Close (very) (FV)	3
528	N4, R1	Chichester Plateau,	Close (very) (HR &	5
		Hamersley slopes	CP)	
529	N2	Hamersley slopes	Close (very) (HS, HR)	2
384	R1, N11,	Weeli Wolli Fan (edge)	Local	10
127	R1	Chichester Plateau	Local (CP)	1
427	N9, R11	Weeli Wolli Fan,	Away & Local (1,	18
.27	10, 111	Chichester Plateau, Hamersley alluvial, Chichester slopes	HA) & Nearby+ (CS)	
381	N1	Hamersley slopes	Local (close)	1
383	N38, R12	Hamersley alluvial, Hamersley slopes	Local (close)	44
424	N11, R5	Weeli Wolli Fan,	Local (close)	12
		Hamersley alluvial		
433	N2, R3	Weeli Wolli Fan,	Local (close) (CS)	5
40.4	N10 P7	Chichester slopes	I I (I) (EV)	24
404	N19, R7	Weeli Wolli Fan, Fortescue Valley	Local (close) (FV)	24
385	N4, R7	Weeli Wolli Fan	Local (close)	9
363	114, 10	Ween Wom I an	(WWF)	
160	R1	Chichester Plateau	Local (CP)	1
169	R1	Chichester Plateau	Away & Local (CP)	1
162	R2	Chichester Plateau	Local (CP) &	2
			Nearby (AP)	
406	N1	Weeli Wolli Fan	Local (CS – east)	1
435	N2	Weeli Wolli Fan	Local (CS) & Nearby (CS)	2
397	N2	Weeli Wolli Fan	Away & Local (HS)	2
386	N2	Hamersley alluvial, Hamersley slopes	Local (HS) & nearby+ (AP)	3
379	N16, R4	Weeli Wolli Fan,	Local (WWF, HA)	18
	,	Hamersley alluvial	& Nearby (HR)	
380	N2	Weeli Wolli Fan	Local+ (CS – east)	2
564	R1	Chichester Plateau	Nearby	4
552	N6, R1	Weeli Wolli Fan	Nearby & Away	6
128	R2	Chichester Plateau	Nearby & Local (CP, AP)	2
569	R1, N2	Chichester Plateau,	Nearby & Nearby +	
309	181, 182	Hamersley slopes	(CP & CS)	
567	N5, R4	Weeli Wolli Fan,	Nearby & Nearby +	7
	,	Chichester slopes	(CS)	
123	N1	Weeli Wolli Fan,	Nearby (AP)	1
163	R1	Chichester Plateau	Nearby (CP)	1
471	R1	Chichester Plateau	Nearby (CP)	1
568	R2	Chichester Plateau,	Nearby (CP)	3
		Chichester slopes		
575	N5, R2	Weeli Wolli Fan,	Nearby (CS & HS)	7
120	3710	Chichester Plateau	N. 1 (22)	1.0
430	N10	Weeli Wolli Fan	Nearby (CS)	10
450	R3	Fortescue Valley,	Nearby (FV) &	3
		Chichester slopes	Away	

460	R1	Chichester Plateau	Nearby + (CP)	1
470	R1	Chichester Plateau	Nearby + (CP)	1
431	N2	Hamersley alluvial	Nearby + (CS)	2
508	N1	Weeli Wolli Fan	Nearby+	1
362	R1	Chichester Plateau	Nearby+ (AP)	1
365	R1	Chichester Plateau	Nearby+ (AP)	1
314	N1, R1	Fortescue Valley,	Nearby+ (CP/CS)	2
		Hamersley slopes		
425	N32, R2	Weeli Wolli Fan,	Nearby+ (CS, FV)	32
		Hamersley alluvial,		
		Hamersley slopes		
428	N8, R2	Weeli Wolli Fan	Nearby+ (CS, HS)	7
145	N6	Weeli Wolli Fan	Nearby+ (FV)	5
426	R1, N2	Weeli Wolli Fan	Nearby+ (FV)	2

Appendix J

Review of Malcolm Trudgen's Regional Floristic Analysis Report for the Nyidinghu Project

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Our Ref V11030 Contact John Delaney

4 April 2012

Fortescue Metals Group Level 2 / Hyatt Centre 87 Adelaide Terrace East Perth WA 6004

Dear Todd and Shaun

REVIEW OF REGIONAL FLORISTIC ANALYSIS FOR THE NYIDINGHU PROJECT

This letter presents the findings of a review of a report titled "Numerical analysis of floristic data from the Fortescue Metals Group Nyidinghu Project and Nyidinghu Rail areas with comparisons to data from the surrounding Pilbara Bioregion of Western Australia" (the Report") prepared by E.A. Griffin and M.E. Trudgen.

The purposes of this review were to:

- consider the general nature of the regional analysis presented in the Report and confirm whether the methodology used was generally appropriate to achieve the stated purposes of the Report;
- identify any major errors within, or limitations of, the Report; and
- provide a summary of the key findings of the Report in terms of the broader Nyidinghu Project Flora and Vegetation Assessment being prepared by Cardno on behalf of the Fortescue Metals Group.

The findings of this review are as follows.

Overview

The stated purpose of the Report was to "..investigate the conservation value of the vegetation of areas of the Fortescue Metals Group Nyidinghu and Nyidinghu Rail project areas in the northwest of Western Australia as shown by the floristic composition of stands recorded using quadrats."

The Report provides a useful description of the regional context of the Nyidinghu project area with reference to the Fortescue Botanical Districts of Beard (1975), the Land Systems of Van Vreeswyk et al 2004, the Roy Hill 1:250,000 geology sheet (Thorne and Tyler 1996).

The Report is based primarily on numerical analyses of the floristic data (lists of flora species present in the vegetation recording quadrats) recorded from the Nyidinghu project area, combined in a data set with similar floristic data from earlier studies within the Pilbara bioregion. The data used in the analyses were presence/absence records of individual species within the 430 quadrat Nyidinghu Project data set and the 2,883 quadrat Regional data set.

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The numerical analyses presented in the Report were performed using the PATN (Belbin 1987) numerical classification package, which is suited to this type of project. The numerical analyses focused on defining different levels of floristic units based on their degree of similarity in the presence and absence of the species recorded at the sites placed in each group. Two distinct lines of assessment of the relationship of the Nyidinghu data to the reference classification were presented in the Report:

- firstly agglomerative polythetic classification, which is used to "infer the group a new site belongs to from the groups the existing site(s) it associates with ("joins" to in the dendrogram) belong to"; and
- secondly a nearest neighbours assessment, which is used to "infers the group for a new site from the group associated with the sites in the reference classification with which it has most in common (ie., has the highest similarity to in species present)".

The Report makes the distinction between "floristic units" and "plant communities" based on structure and dominance, and "vegetation association" which groups together similar plant communities.

The authors of the Report determined that the 600-group level, as defined using agglomerative polythetic classification methods, provided a somewhat similar level of synthesis to the "plant community" and "vegetation association" concepts and as such would be suited for use for environmental impact assessment purposes. The Report also notes that while the 600-group level of the regional analysis is still somewhat arbitrary, many of the sites assigned to a particular group levels have more than similar species lists in common, often having similar species dominance and structure attributes, similar habitats and/or are mostly from the same or similar geology.

Key Findings

Geomorphology and the underlying geology are major influence on the formation and distribution of the floristic groups found by the classification. Superficially (at the scale of the images), it appears that many of the floristic groups have similar geographic patterns. It is likely that this represents different segments of catenas (also referred to as land units within the land system mapping). In other terms, this represents rapid change in floristic composition over short distances due to differences in soils and habitats.

Overall, the distribution of sites allocated to discrete floristic units by the analysis seems to make sense with some caution needed in the interpretation. The basic problem (as much as data issues) is likely to be that the assignment of the data to only six hundred groups forces too much variation into many of these groups. It seems that when areas (based on geology and physiography) not well sampled in the reference data set are added to the analysis, then new units are encountered. This seems to be the case for the Weeli Wolli alluvial fan, the Fortescue Valley and other such physiographic units in the survey area. Possibly surprisingly it seems to be the case for the Chichester Plateau, which is somewhat better sampled in the reference data set than the Weeli Wolli alluvial fan.

Implications for the Nyidinghu Project Flora and Vegetation Assessment

The Nyidinghu Project area considered in the Report is different from the area that is the subject of the Nyidinghu Project Flora and Vegetation Assessment which does not include the following areas which were considered part of the Nyidinghu Project area in the Report:

- the Nyidinghu railway route; and
- the northern band of land extending from the southern edge of Fortescue Marsh and southward to Munjina -Roy Hill Road.



As such the findings of the Report as far as they concern the regional conservation significance of floristic groups associated with the Fortescue Valley and the Chichester Plateau physiographic units are of little direct relevance to the Nyidinghu Project Flora and Vegetation Assessment.

The particular findings of the Report of most relevance to the Nyidinghu Project Flora and Vegetation Assessment include the following.

- 1. Experience from earlier analyses of Pilbara floristic data and vegetation and flora surveys (e.g. Griffin & Trudgen 2005, 2009a, b, c; Trudgen & Casson 1998; Trudgen and Griffin 2001; Trudgen, Morgan & Griffin 2002) has indicated that the major physiographic units of Beard (1975) have vegetation with largely distinctive floristic composition.
- 2. These significant differences in the vegetation of the physiographic units of Beard (1975) imply that they are a reasonable component of the context for the assessment of conservation values for vegetation in the Pilbara Bioregion. That is, they can (with an appropriate modest degree of caution) be used as boundaries to make conservation assessments. However, it must be appreciated that these features are not uniform and within them there are many subdivisions. Where the subdivisions (for example, the Chichester slopes or the Weeli Wolli alluvial fan) have obvious correlation to vegetation differences, it is appropriate to use them.
- 3. While the broad scale geomorphology of the area of interest undoubtedly has important connotations for assessing its conservation value for vegetation (as discussed above), this will not be fully relied upon in this report, as knowledge of the level of restriction of individual vegetation types to these physiographic areas is not detailed enough at this time to do so. The appropriate methodology is to use the physiographic information at a broad level and then look at other data to test this and to provide information at a lower level.
- 4. The Weeli Wolli alluvial fan (and to some unknown level the Fortescue River alluvial fan) has a significant diversity of floristic types not found in the 2,8883 site reference data set. While it is obvious that five of these types were not in the reference data because it did not sample the Weeli Wolli alluvial fan, it does not take away from the fact that these units are restricted to the alluvial fan and for the other three largely restricted to it in the available data.
- 5. The logical conclusion is that the Weeli Wolli alluvial fan has quite high floristic diversity in the vegetation that occurs in it and that a significant portion of this variation is likely to be restricted to it, or to it and the adjoining Fortescue River alluvial fan.
- 6. The conclusion is that the Hamersley Escarpment has relatively low floristic diversity in the vegetation that occurs on it in the Nyidinghu area and little of the variation is likely to be restricted to the Nyidinghu area. However, it should be noted that there are relatively few sites from the Escarpment in the Nyidinghu data set, which contributes to the lower diversity compared to the Weeli Wolli alluvial fan.

Given the above, it will be necessary for the Nyidinghu Project Flora and Vegetation Assessment to give particular consideration to the scale of the impacts that will occur to the diversity of floristic units that are represented on the Weeli Wolli alluvial fan. However, given the diversity of floristic groups identified in the Report for the Weeli Wolli alluvial fan (i.e. eight units from the 50-group level of the Nyidinghu Project local classification or fifty units from the 600-group level regional reference classification) it may not be possible to accurately map the distribution of these floristic units across the Weeli Wolli alluvial fan with confidence using existing available data. Rather an assessment of the impact of the Nyidinghu Project upon the floristic units present within the Weeli Wolli alluvial fan may need to be carried out at the physiographic unit level and be based primarily on the:

- the extent of the Weeli Wolli alluvial fan (approx. 60-70,000 hectares); and
- the proportion of that area that would be affected by the Nyidinghu Project.



Consideration of the likely similarities between the floristic units associated with Weeli Wolli alluvial fan and adjacent Fortescue River alluvial fan should also be recognised as part of any such impact assessment.

The limitation of such an impact assessment method is that it would effectively assume that the "impact" area is representative of the Weeli Wolli alluvial fan as a whole and the impact on each individual floristic unit and on the overall diversity of floristic units would be directly proportional to the area to be impacted. This assumption could potentially be tested, to an extent, using the Nyidinghu Project site classifications presented in the Report to obtain an indication of the spread of floristic units within and outside of the impact area. The utility of such an analysis may however be limited by the small number of sites that some floristic units are represented by, particularly at the 600-group level of regional classification. Nevertheless such an analysis may provide meaningful results if carried out using the floristic units derived from the from the 50-group level local classification.

A similar analysis could be carried out to assess, at a regional level, the significance of the Nyidinghu Project impacts on the regional floristic units associated with the Hamersley Escarpment.

Report Limitations

The Report appropriately recognises the inherent limitations associated with the data and analytical methods used.

The quality of the figures and maps presented in the Report could be improved by including clear demarcation of features and boundaries that are referred to in the figure/map legend or associated text. For example:

- the utility of Map 2 could be enhanced by showing the locations of the sites on Map 2 rather than referring the reader to Map 1d;
- the utility of Figure 7 could be enhanced by showing the approximate boundaries of the Weeli Wolli Creek and Fortescue River alluvial fans and the Nyidinghu Project area; and
- the utility of Figure 5 could be enhanced by showing the boundaries of the physiographic units which form the basis of the conservation assessment presented in Section 5.2 of the Report.

The quality of the maps/figures and the degree of confidence with which inferences can be drawn is further diminished by several apparent/potential errors in the cross-referencing of maps/figures within the Report. For example:

- at page 27 there is a reference to Map 2 which is not correct; and
- at page 59 there is a reference to Figure 8 which is not correct.

The Report would benefit from a clear description of the association between the primary physiographic units relied upon in the Conservation Assessment (Section 5.0) and the geomorphological units referred to previously in Figure 1a-y.

The Report would be enhanced by the inclusion of statistics concerning the regional extents of the primary physiographic units relied upon in the Conservation Assessment (Section 5.0).

Section 5.2.2.1 finishes with an incomplete sentence.

There is also a reference on page 18 of the Report to "Solomon Project and Investigator Project Area" which is not relevant to the purpose of the Report.

Should you have any gueries regarding the above please do not hesitate to contact me to discuss same.



Yours faithfully

John Delaney Principle Ecologist for Cardno