

Central Pilbara Hub
Detailed and targeted flora and vegetation assessment

Report to BHP Western Australian Iron Ore

2 December 2024



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Executive Summary

BHP Western Australia Iron Ore (BHP WAIO) commissioned Biologic to undertake a flora and vegetation assessment within the Central Pilbara Hub locality, comprising a desktop assessment and a series of single-phase detailed and targeted flora surveys. The 'Study Area' comprises three separate areas: Pineapple Hill and Camp Hill, Mining Area C to Yandi Rail Corridor, and Mudlark Well and covers approximately 60,000 hectares.

The overarching objective of this survey was to assess the flora taxa present, or likely to be present, within the Study Area and map the vegetation types and condition within. This objective was addressed with single-phase detailed surveys, in areas where previous surveys were more than five years old or non-existent, and targeted surveys where surveys had previously occurred within five years through the remainder of the Study Area.

The detailed and targeted field surveys were undertaken by 11 botanists, two zoologists and two field technicians over eight separate trips and 175 person days. The single-phase detailed surveys comprised of six trips: two trips in March 2022, one trip each in April 2022, June 2022, April 2023 and June 2023. The targeted surveys were conducted across two trips: November 2021 and July 2023, and focussed on the Pineapple Hill and Camp Hill area. A total of 195 quadrats, 33 relevés, and 33 mapping notes were completed across the Study Area, as well as opportunistic sampling. There were no substantial limitations or constraints impacting the flora and vegetation survey, or the subsequent results.

The desktop assessment identified 26 significant flora taxa confirmed to occur within the Study Area and a further 65 significant flora taxa which had potential to occur within the Study Area.

A total of 548 confirmed vascular flora taxa, from 63 families and 195 genera, were recorded during the field survey, comprising 527 native flora taxa and 21 introduced flora taxa. Twenty-one significant taxa were recorded during the field surveys, with 20 occurring within Study Area, comprising of:

- Priority 2: *Eremophila* sp. West Angelas (S. van Leeuwen 4068), *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) and *Triodia karijini* (not found within the Study Area);
- Priority 3: *Aristida jerichoensis* var. *subspinulifera, Aristida lazaridis, Eragrostis* sp. Mt Robinson (S. van Leeuwen 4109), *Eremophila magnifica* subsp. *velutina, Eremophila naaykensii*, *Indigofera gilesii, Ipomoea racemigera, Oxalis* sp. Pilbara (M.E. Trudgen 12725), *Pilbara trudgenii, Rhagodia* sp. Hamersley (M. Trudgen 17794), *Rostellularia adscendens* var. *latifolia, Solanum kentrocaule, Themeda* sp. Hamersley Station (M.E. Trudgen 11431), *Triodia* sp. *Mt Ella* (M.E. Trudgen 12739), and *Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684); and

- Priority 4: *Eremophila magnifica* subsp. *magnifica, Lepidium catapycnon*, and *Sida* sp. Barlee Range (S. van Leeuwen 1642).

An additional seven significant flora taxa are Confirmed as occurring from the Study Area, however, were not recorded during the current surveys. Twelve significant flora taxa were assessed as Possible to occur within the Study Area, for the post-survey review of likelihood of occurrence. The remaining significant taxa were assessed as Unlikely or Highly Unlikely to occur.

Twenty-one confirmed introduced taxa were recorded within the Study Area, none of which were listed as Weeds of National Significance. Weeds were prevalent across the entire Study Area, with the most common being **Bidens bipinnata*. The introduced pasture grass **Cenchrus ciliaris* formed the dominant part of one vegetation type (MA CcCs Aci EcrEv).

A total of 77 vegetation types from 28 broad floristic formations were described and delineated within the Study Area. The dominant broad floristic formation was *Triodia* Hummock Grassland which supported 33 vegetation types and occurred across 67.3% of the Study Area. Vegetation types were found across 10 landforms, with Stony Plains being the most dominant landform (25.6% of the Study Area). Two mapping units, 'Cleared' and 'Rehabilitation', were also mapped within the Study Area.

The vegetation types sampled during the field survey are not considered to be analogous with the known Threatened Ecological Communities and Priority Ecological Communities (PECs) occurring in the Pilbara region. Two PECs, 'Coolibah – Lignum Flats: sub type 2' (Priority 1) and 'West Angelas Cracking-Clays' (Priority 1), have buffers overlapping the Mudlark Well portion of the Study Area, but the locations of these PECs are not directly within the Study Area, and vegetation recorded in the buffer areas did not align with the PEC descriptions.

Several vegetation types throughout the Study Area were considered significant for other reasons. This included 39 vegetation types that hold local significance for supporting one or more of the priority flora recorded, 15 vegetation types considered to be 'ecosystems at risk' for the Hamersley subregion, eight vegetation types considered to be potentially Groundwater Dependent Vegetation, and three vegetation types considered to be Sheet-flow Dependent Vegetation. It should be noted that not all vegetation types were sampled during the current surveys, with the reliance on existing mapping supplied by BHP WAIO and extrapolation to describe and delineate the vegetation types in areas previously surveyed.

The condition of the vegetation in the Study Area ranged from Completely Degraded to Excellent, with the majority (78.5%) in Excellent condition. The most common impacts to the vegetation were from introduced flora, historical clearing for access tracks, and cattle

grazing. Introduced flora had higher numbers and cover alongside tracks and infrastructure and areas of lower relief in the landscape (i.e., drainage features and floodplains).

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1 Introduction

1.1 Background

BHP Western Australia Iron Ore (BHP WAIO) commissioned Biologic Environmental Survey Pty Ltd (Biologic) to undertake a flora and vegetation assessment of the Central Pilbara Hub (CPH) locality comprising of a desktop assessment, and a series of single-phase detailed and targeted flora surveys. The CPH (hereafter, the Study Area), is located approximately 80 km northwest of Newman and covers approximately 60,000 hectares (ha), surrounding the Mining Area C and South Flank mining hub. The Study Area comprises three separate areas (Figure 1.1):

- Pineapple Hill and Camp Hill;
- Mining Area C (MAC) to Yandi Rail Corridor; and
- Mudlark Well.

The flora and vegetation assessment within the Study Area comprised a total of eight field trips: a series of six single-phase detailed surveys undertaken of unsurveyed areas or areas surveyed outside the last five years, and an additional two trips comprising targeted flora assessments of areas where recent detailed surveys existed (within five years).

The survey results may be used to inform future environmental approvals in the area; however, they do not assess any specific development proposed by BHP WAIO.

1.2 Scope and objectives

The overarching objective of this survey was to assess the flora taxa present, or likely to be present, within the Study Area, and map the vegetation types and condition within. The scope of works includes single-phase detailed and targeted flora and vegetation surveys of the Study Area. The scope of works was addressed via:

- A desktop assessment to gather contextual information on the Study Area and surrounds; and
- Field assessments to determine the species present, the vegetation types present, and the condition of the vegetation, including any significant species.

1.3 Compliance

This assessment was carried out in acknowledgement of the following guidelines and recommendations developed by the relevant state and commonwealth regulatory bodies (Table 1.1).

Table 1.1: Guidelines, technical guidelines, and procedures for the field survey

Survey component	Guidance documents
General / EIA	Environmental Protection Authority (EPA) (2023) Statement of environmental principles, factors, objectives and aims of EIA
	Department of Environment (DoE) (2013) Matters of National Environmental Significance (MNES): Significant impact guidelines
Detailed and targeted flora/ vegetation survey	EPA (2016a) Environmental factor guideline: flora and vegetation
	EPA (2016b) Technical guidance: Flora and vegetation surveys for environmental impact assessment
	EPA (2018) Environmental factor guideline: inland waters

1.3.1 Legislation

Within Western Australia (WA), native flora and vegetation are protected under the *Biodiversity Conservation Act 2016* (BC Act) and at a national level under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Any action that has the potential to impact on native flora or vegetation needs to be approved by relevant state and/ or commonwealth departments as dictated by the state *Environmental Protection Act 1986* (EP Act). These codes, jurisdiction and level of protection are detailed in Appendix A.

1.3.2 Introduced flora

Introduced flora can pose a threat to native vegetation and biodiversity. The Commonwealth of Australia, in collaboration with the states and territories, identified 32 Weeds of National Significance (WoNS) assessed according to their invasiveness, potential for spread, and environmental, social and economic impacts (DAFF, 2021). A database of Declared Pests (DP) is kept by the Department of Primary Industries and Regional Development (DPIRD). This database falls under state jurisdiction, legislated by the *Biosecurity and Agriculture Management Act 2007* (BAM Act). Some introduced flora taxa may be classified within categories that have legal control or management requirements (Appendix A). These requirements must be met by the landholder.

660000
680000
700000
720000
740000
7480000
7460000
7440000
Karijini National Park
Pineapple Hill and Camp Hill
MS1039
Packsaddle Rd
MAC to Yandi Rail Corridor
MS1072
Karijini National Park
Mudlark Well
Great Northern Hwy
IBRA Region
Pilbara
IBRA Subregion
Chichester
Fortescue
Hamersley
Roebourne
Port Hedland
Karratha
Newman
LEGEND
Study Area
Approval Boundary
Local Road
State Road
Rail
National Park
Section 5(1)(g) Reserve
Biologic
Scale 1:240,000
0 5 10 Km
Coordinate System: GDA 1994 MGA Zone 50 Transverse Mercator
Created: 22/03/2024
Karratha
Port Hedland
Exmouth
Newman
Carnarvon
BHP WAIO
CPH Detailed and Targeted Flora and Vegetation Assessment
Figure 1.1: Study Area and regional context

2 Existing Environment

2.1 Biogeography

The Study Area is located within the Hamersley (PIL3) subregion of the Pilbara bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA) (Thackway & Cresswell, 1995) (Figure 1.1). The Pilbara bioregion is characterised by vast coastal plains and inland mountain ranges with cliffs and deep gorges (Thackway & Cresswell, 1995). Vegetation is predominantly mulga low woodlands or snappy gum over bunch and hummock grasses (Bastin, 2008). The Hamersley subregion is characterised by mountainous areas of Proterozoic sedimentary ranges (ironstone ranges) and plateaux dissected by gullies and gorges (Kendrick, 2003). Vegetation comprises mulga low woodland over bunch grasses on fine-textured soils in valley floors, while skeletal soils of the ranges are dominated by snappy gum (*Eucalyptus leucophloia*) over *Triodia brizoides* (Kendrick, 2003). Drainage is typically into the Fortescue River to the north, the Ashburton River to the south, or the Robe River to the west (Kendrick, 2003).

The significant and dominant feature of this subregion is the Hamersley Range, a 450 km long mountainous plateau which receives significantly higher rainfall than the surrounding subregion giving rise to deeply incised gorges, up to 100 metres (m) deep, containing extensive permanent spring-fed streams and pools (Kendrick, 2003). The Hamersley Range (to the south) and Chichester Range (to the north) drain to give rise to the Fortescue Marsh and Fortescue River system (McKenzie *et al.*, 2009).

2.2 Climate

The Pilbara bioregion has a semi-desert to tropical climate, with rainfall occurring sporadically throughout the year, although mostly during summer (Thackway & Cresswell, 1995). Summer rainfall is usually the result of tropical storms in the north or tropical cyclones that impact upon the coast and move inland (Leighton, 2004). The winter rainfall is generally lighter and is the result of cold fronts moving northeasterly across the state (Leighton, 2004). The average annual rainfall ranges from 200–350 mm, although there are significant fluctuations between years, with some locations receiving up to 1,200 mm in some years (McKenzie *et al.*, 2009).

2.3 Geology

The Hamersley subregion contains Proterozoic sedimentary ranges and gorges of basalt, shale and dolerite. This subregion also contains calcrete deposits (Kendrick, 2003). The Study Area occurs in the Pilbara Physiographic Province (GSWA, 2020). The regolith geology of the Study Area is displayed in Table 2.1 and Figure 2.1. Regolith geology contains unconsolidated

rock produced by weathering, erosion and/or deposition that sits above solid bedrock (Eggleton, 2001). The two dominant formations of the Study Area are:

- W-PIP (12,288 ha/ 20.5%), broadly characterised by clays, silts and sands in sheetwash deposits; and
- X-PIP (17,860/ 29.8%), characterised by exposed bedrock.

Table 2.1: Geological formations occurring within the Study Area

Unit Code	Unit name Description	Extent within Study Area	
		ha	%
Aa-PIP	**Alluvial/fluvial unit, PIP** Sand- or clay-rich alluvium on alluvial plain	6,860	11.5
Ac-PIP	**Alluvial/fluvial unit, PIP** Clay, silt, sand, and gravel in fluvial channels	6,175	10.3
A-PIP	**Alluvial/fluvial unit, PIP** Clay, silt, sand, and gravel in channels and on floodplains	1,661	2.8
C-PIP	**Colluvial unit, PIP** Colluvium derived from different rock types; includes gravel, sand, silt and clay	6,850	11.4
Rr-fh-PIP	**Residual or relict unit, PIP** Hematitic duricrust, massive to rubbly; includes iron-cemented reworked products	1,008	1.7
Rr-f-PIP	**Residual or relict unit, PIP** Ferruginous duricrust, massive to rubbly; includes iron-cemented reworked products	88	0.1
Rr-kc-PIP	**Residual or relict unit, PIP** Calcrete, nodular to massive; includes calcite and reworked carbonate products	67	0.1
Rt-fl-PIP	**Residual or relict unit, PIP** Transported limonitic duricrust; iron-cemented sand, gravel, cobbles and boulders	41	0.1
Rt-PIP	**Residual or relict unit, PIP** Transported duricrust; cemented sand, gravel, cobbles, and boulders in alluvial/colluvial deposits	6,983	11.7
W-PIP	**Sheetwash unit, PIP** Clay, silt and sand in distal sheetwash fan and slope deposits; local ferruginous pisoliths and gravel	12,288	20.5
X-PIP	**Exposed unit, PIP** Exposed bedrock	17,860	29.8

660000 680000 700000 720000 740000

7480000

7460000

7440000

W-PIP
X-PIP
Rr-kc-PIP
Rt-PIP
MS1039
Pineapple Hill
and Camp Hill
Packsaddle Rd
Ac-PIP
MAC to Yandi
Rail Corridor
MS1072
C-PIP
Aa-PIP
Mudlark Well
A-PIP
Great Northern Hwy
Rr-f-PIP

Regolith Geology

- A-PIP; Alluvial/fluvial unit, PIP
- Aa-PIP; Alluvial/fluvial unit, PIP
- Ac-PIP; Alluvial/fluvial unit, PIP
- C-PIP; Colluvial unit, PIP
- El-PIP; Eolian unit, PIP
- Rr-f-PIP; Residual or relict unit, PIP
- Rr-fh-PIP; Residual or relict unit, PIP
- Rr-kc-PIP; Residual or relict unit, PIP
- Rt-PIP; Residual or relict unit, PIP
- Rt-fl-PIP; Residual or relict unit, PIP
- W-PIP; Sheetwash unit, PIP
- X-PIP; Exposed unit, PIP

LEGEND

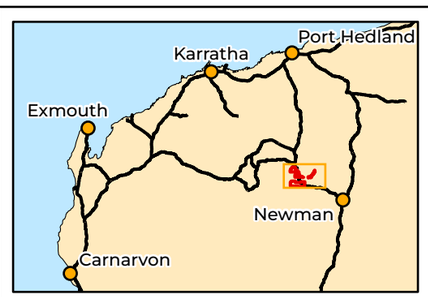
- Study Area
- Approval Boundary
- Local Road
- State Road
- Rail

Biologic

Scale 1:240,000

0 5 10 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 29/04/2024



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CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 2.1: Broad geology of the Study Area

2.4 Land systems

Leighton (2004) classified and mapped the land systems of the Pilbara bioregions according to similarities in landform, soil, vegetation, geology and geomorphology. An assessment of land systems provides an indication of the diversity and distribution of habitats in the Study Area.

Eleven land systems occur within the Study Area, the dominant being the Boolgeeda land system which covers 51.2% (Figure 2.2, Table 2.2). The Boolgeeda land system is defined as "stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands" (Leighton, 2004). The second most dominant is the Newman land system, covering approximately 32.2% of the Study Area, defined as "rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands".

Wannamunna land system accounts for 10.3% of the Study Area and is characterised as "hardpan plains and internal drainage tracts supporting mulga shrublands and woodlands (and occasionally eucalypt woodlands)". The remaining eight land systems cumulatively account for 6.4% of the Study Area.

Table 2.2: Land systems occurring within the Study Area

Name	Description	Extent within Study Area	
		ha	%
Boolgeeda	Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands.	30,654	51.2
Calcrete	Low calcrete platforms and plains supporting shrubby hard spinifex grasslands.	57	0.1
Egerton	Highly dissected hardpan plains supporting mulga shrublands and hard spinifex hummock grasslands.	215	0.4
McKay	Hills, ridges, plateaux remnants and breakaways of meta sedimentary and sedimentary rocks supporting hard spinifex grasslands.	87	0.1
Newman	Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands.	19,256	32.2
Pindering	Gravelly hardpan plains supporting groved mulga shrublands with hard and soft spinifex.	5	0.0
Platform	Dissected slopes and raised plains supporting hard spinifex grasslands.	3,030	5.1
River	Active flood plains, major rivers and banks supporting grassy eucalypt woodlands, tussock grasslands and soft spinifex grasslands	31	0.1
Robe	Low plateaux, mesas, and buttes of limonites supporting soft spinifex (and occasionally hard spinifex) grasslands.	302	0.5

Name	Description	Extent within Study Area	
		ha	%
Rocklea	Basalt hills, plateaux, lower slopes, and minor stony plains supporting hard spinifex (and occasionally soft spinifex) grasslands.	86	0.1
Wannamunna	Hardpan plains and internal drainage tracts supporting mulga shrublands and woodlands (and occasionally eucalypt woodlands).	6,160	10.3

2.5 Soils

The Atlas of Australian Soils was compiled by the Commonwealth Scientific and Industrial Research Organisation in the 1960s to provide a consistent national description of Australia's soils (Northcote *et al.*, 1960-1968). It comprises of a series of ten maps and associated explanatory notes and is published at a scale of 1:2,000,000, but the original compilation was at scales from 1:250,000 to 1:500,000.

The broad soil landscape unit mapping shows the Study Area comprises units Fa13, Fa14 and Fb3 (Northcote *et al.*, 1960-1968) (Table 2.3, Figure 2.3). The dominant soil type, Fa13 (47.2% of the Study Area), is largely associated with the Hamersley and Ophthalmia Ranges and has some areas of ferruginous duricrust as well as occasional narrow winding valley plains and steeply dissected pediments. The soils are frequently stony and shallow and there are extensive areas without soil cover (Bettany *et al.*, 1967).

The second most dominant soil type is Fb3 (32.7%) and has extensive areas of pisolitic limonite deposits: principal soils are deep earthy loams (Um5.52) along with small areas of Gn2.12 soils (Bettany *et al.*, 1967). The remainder of the Study Area is soil type Fa14 (20.1%), characterised by some narrow winding valley plains: chief soils are shallow stony earthy loams (Um5.51) along with some Uc5.11 soils on the steeper slopes. Dr2.33 and Dr2.32 soils which occur on the pediments are more extensive than in unit Fa13. Um5.52 and Uf6.71 soils occur on the valley plains (Bettany *et al.*, 1967).

Table 2.3: Soil units occurring within the Study Area

Unit Code	Description	Extent within Study Area	
		ha	%
Fa13	Ranges of banded jaspilite and chert along with shales, dolomites, and iron ore formations	28,248	47.2
Fa14	Steep hills and steeply dissected pediments on areas of banded jaspilite and chert along with shales	12,035	20.1
Fb3	High-level valley plains set in extensive areas of unit Fa13	19,599	32.7

660000
680000
700000
720000
740000
7480000
7460000
7440000

Pineapple Hill
and Camp Hill
MS1039
Packsaddle Rd
MAC to Yandi
Rail Corridor
MS1072
Mudlark Well
Great Northern Hwy

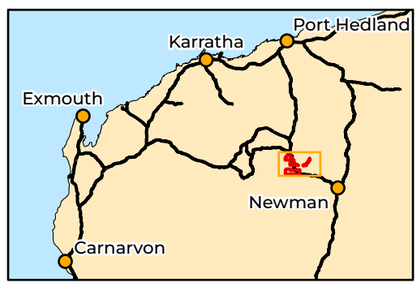
Land System
- Boolgeeda System
- Calcrete System
- Egerton System
- Elimunna System
- Fan System
- Jamindie System
- Kumina System
- McKay System
- Newman System
- Oakover System
- Paraburdoo System
- Pindering System
- Platform System
- River System
- Robe System
- Rocklea System
- Spearhole System
- Table System
- Urandy System
- Wannamunna System

LEGEND
- Study Area
- Approval Boundary
- Local Road
- State Road
- Rail

Biologic

Scale 1:240,000
0 5 10 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 22/03/2024



BHP WAIO

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Figure 2.2: Land systems of the Study Area

660000
680000
700000
720000
740000
7480000
7460000
7440000
Pineapple Hill
and Camp Hill
MS1039
Packsaddle Rd
MAC to Yandi
Rail Corridor
MS1072
Mudlark Well
Great Northern Hwy
West Angelas Rd

LEGEND

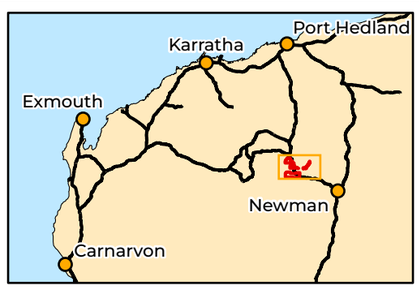
Study Area
Approval Boundary
Local Road
State Road
Rail

Soil Unit
Fa13
Fa14
Fa15
Fb3
Ja2
My55
Mz25
Oc71

Biologic

Scale 1:240,000
0 5 10 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 22/03/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 2.3: Soils of the Study Area

2.6 Hydrology and hydrogeology

Three major watercourses are either within or in proximity to the Study Area (Figure 2.4). Marillana Creek flows in an easterly direction, running through the north-eastern tip of the MAC to Yandi Rail Corridor portion of the Study Area towards Yandicoogina Creek and Weeli Wolli Creek (approximately 8–13 km east of the Study Area). Yandicoogina Creek (flows to the north) and un-named tributaries of Marillana Creek also intersect this northern portion of the Study Area. Marillana Creek and Yandicoogina Creek are important sources of surface water runoff to Weeli Wolli Creek, which flows to the north and discharges into the Fortescue River. Both Marillana Creek and Yandicoogina Creek typically only flow during the wet season following significant rainfall and are periodically subject to major flooding as a result of cyclonic weather events in the region. Marillana Creek and Yandicoogina Creek are also influenced by dewatering discharge from BHP WAIO's Yandi operations and Rio Tinto Iron Ore's Yandicoogina operations downstream. Marillana Creek is a source of recharge to the Marillana Creek Channel Iron Deposit (CID) groundwater aquifer (Johnson & Wright, 2003).

2.6.1 Groundwater dependent ecosystems

Groundwater Dependent Ecosystems (GDEs) are ecosystems that rely upon groundwater for their continued existence (BoM, 2024b). GDEs can be represented by many different assemblages of biota which rely on groundwater, and as a result come in many forms. For terrestrial ecosystems there are three key types of GDE (BoM, 2024b); aquatic ecosystems: that rely on the surface expression of groundwater, terrestrial ecosystems: that rely on the subsurface presence of groundwater – this includes all vegetation ecosystems or Groundwater Dependent Vegetation (GDV); and subterranean ecosystems: this includes cave and aquifer ecosystems.

Above ground terrestrial GDEs are typically characterised by the presence of flora species that rely on groundwater, i.e., phreatophytes. Phreatophytes may be classified as either obligate or facultative phreatophytes depending on their reliance on groundwater (Eamus *et al.*, 2016):

- Obligate phreatophytes are flora species confined to habitats with access to groundwater;
- Facultative phreatophytes are flora species that can utilise groundwater to satisfy a proportion of their ecological water requirement (EWR) when it is available. However, some individuals may also satisfy their EWR by relying solely on uptake from upper unsaturated soils layers where groundwater is inaccessible.

660000
680000
700000
720000
740000
7480000
7460000
7440000

Marillana Creek
Marillana Creek
MS1039
Lamb Creek
Yandicoogina Creek
Yandicoogina Creek
Pineapple Hill
and Camp Hill
Packsaddle Rd
MAC to Yandi
Rail Corridor
Weeli Wolli Creek
MS1072
Pebble Mouse Creek
Weeli Wolli Creek
Mudlark Well
West Angelas Rd
Great Northern Hwy
Turee Creek East Branch

LEGEND

Study Area
Approval Boundary

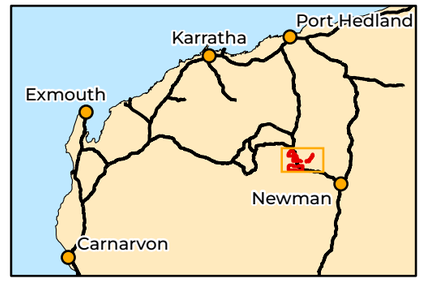
Local Road
State Road
Rail

Surface Hydrology
Minor
Major

Biologic

Scale 1:240,000
0 5 10 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024



BHP WAIO

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Figure 2.4: Surface hydrology of the Study Area

The Bureau of Meteorology (BoM) has developed the *Groundwater Dependent Ecosystems Atlas* (GDE Atlas) as a national dataset of Australian GDEs to inform groundwater planning and management (BoM, 2024b). It is the first and only national inventory of GDEs in Australia.

The GDE Atlas contains information about the three key types of GDEs: Aquatic ecosystems, Terrestrial ecosystems, and Subterranean ecosystems. Importantly, the GDE Atlas also includes the national inflow-dependent landscapes layer which is derived from remotely sensed data. This layer indicates the likelihood that a landscape is accessing water in addition to rainfall (such as soil moisture, surface water or groundwater), and generally represents a potential GDE dataset for all areas not yet studied or investigated in any detail.

The GDE mapping in the GDE Atlas comes from two broad sources:

- National assessment – national-scale analysis based on a set of rules that describe potential for groundwater/ ecosystem interaction and available geographic information systems (GIS) data.
- Regional studies – more detailed analysis undertaken by various state and regional agencies using a range of different approaches including field work, analysis of satellite imagery and application of rules/conceptual models.

The BoM GDE Atlas indicates that the Study Area has potential to support both terrestrial and aquatic GDEs (BoM, 2024b). Approximately half of the MAC to Yandi Rail Corridor portion of the Study Area, as well as small areas at the southern end of Pineapple Hill and Camp Hill, have moderate potential to support terrestrial GDEs. MAC to Yandi Rail Corridor also has moderate potential to support aquatic GDEs where it overlaps with Marillana Creek in the north. The remainder of the Study Area has low or zero potential to support either terrestrial or aquatic GDEs.

2.6.2 Sheet-flow dependent ecosystems

Mulga is a vernacular term used in reference to a dominant arid-zone, group of tall shrubs, allied to the *Acacia aneura* taxonomic complex, of which there are 12 separate entities, excluding informal variants, putative hybrids and intergrades (Maslin & Reid, 2012). The term mulga is also used to describe vegetation communities in which these taxa predominate (Maslin *et al.*, 2012). The structure and patterning of mulga communities varies from strongly banded (groved) through to open shrublands and woodlands across the landscape (Page & Grierson, 2012). The bandings act as a sink for nutrients and water to infiltrate the soil and are readily available for uptake by the flora located within the banding. This banding and overland sheet-flow supports a diverse biota within the mulga bands and plays an important ecological function which is well documented (Dawson & Ahern, 1973; Saco *et al.*, 2007; Winkworth, 1973).

The Study Area contains three land systems (Leighton, 2004) that have landforms subject to sheet-flow, with these being characterised by mulga groves within stony plains and hardpan plains (Section 2.4). The Boolgeeda land system includes small groves up to 20 m long within stony lower plains which are subject to sheet flow. The Wannamunna land system supports sheet flow on hardpan plains, with groves up to 1.5 km long by 150 m wide. The Pindering land system has groves up to 400 m long by 30 m wide situated on gravelly hardpan plains that are subject to sheet flow (Leighton, 2004).

2.7 Vegetation

2.7.1 Pre-European vegetation

Beard (1975) broadly (1:1,000,000) mapped the major structural vegetation types of Western Australia. Shepherd *et al.* (2002) reinterpreted and updated the vegetation association mapping to reflect the National Vegetation Information System (NVIS) standards (ESCAVI, 2003). This update also accounts for extensive clearing since Beard (1975) mapping.

Three vegetation associations occur within the Study Area, Hammersley-18, Hammersley-82, and Hammersley-29 (Table 2.4, Figure 2.5). Hammersley-18 and Hammersley-29 comprise low mulga (*Acacia aneura*) woodland, while Hammersley-82 is largely hummock grasslands with *Eucalyptus leucophloia*.

Table 2.4: Hamersley system associations occurring within the Study Area

Unit Code	Description	Extent within Study Area	
		ha	%
HAMMERSLEY-18	Low woodland; mulga (*Acacia aneura*)	38,718	64.7
HAMMERSLEY-29	Sparse low woodland; mulga, discontinuous in scattered groups	711	1.2
HAMMERSLEY-82	Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*	20,454	34.2

2.8 Land use and tenure

The Study Area is located on two pastoral leases, with the northern portion of Pineapple Hill and Camp Hill occurring on Juna Downs Station and a small section at the northern extent of the MAC to Yandi Rail Corridor occurring on Marillana Station. The majority of the MAC to Yandi Rail Corridor and a small portion of Mudlark Well at its northeast extent occurs on Vacant Crown Land, while the north-west section of Pineapple Hill and Camp Hill is situated adjacent to Juna Downs Station, on Unallocated Crown Land.

Karijini National Park is situated adjacent to the westernmost boundary of the Study Area, with 7.2 ha of the Study Area (Mudlark Well portion) located within the boundary of Karijini National Park (Figure 1.1). This overlap forms 0.001% of the National Park.

The Study Area overlaps with 50 different tenements held by BHP, including eight exploration licenses, six mineral leases, 34 mining leases, and two miscellaneous licenses (Table 2.5). An additional 33 tenements held by other parties intersect the Study Area.

Table 2.5: BHP mining and exploration tenements overlapping the Study Area

Tenement Type	Tenement/ License ID
MAC to Yandi Rail Corridor	
EXPLORATION LICENCE	E 47/628-I
MINERAL LEASE	ML 244SA, ML 281SA
MINING LEASE	M 47/708, M 47/709
MINING LEASE S.A.	M 266SA, M 270SA
MISCELLANEOUS LICENCE	L 47/92, L 47/95
Mudlark Well	
EXPLORATION LICENCE	E 47/13-I, E 47/14-I, E 47/1540-I, E 47/15-I
MINERAL LEASE S.A.	ML 249SA, ML 281SA
MINING LEASE	M 47/732, M 47/733, M 47/734, M 47/735, M 47/736, M 47/737, M 47/738, M 47/739, M 47/740, M 47/741, M 47/742, M 47/743, M 47/744, M 47/745, M 47/746, M 47/747, M 47/748, M 47/749, M 47/750, M 47/751, M 47/752, M 47/753, M 47/754, M 47/755, M 47/756, M 47/757, M 47/758, M 47/759, M 47/760
Pineapple Hill and Camp Hill	
EXPLORATION LICENCE	E 47/1429-I, E 47/3238-I, E 47/3275-I
MINERAL LEASE S.A.	ML 249SA, ML 281SA
MINING LEASE	M 47/1563

660000
680000
700000
720000
740000
7480000
7460000
7440000
Pineapple Hill
and Camp Hill
MS1039
Packsaddle Rd
MAC to Yandi
Rail Corridor
MS1072
Mudlark Well
Great Northern Hwy
West Angelas Rd

LEGEND

- Study Area
- Approval Boundary
- Local Road
- State Road
- Rail

Pre-European Vegetation

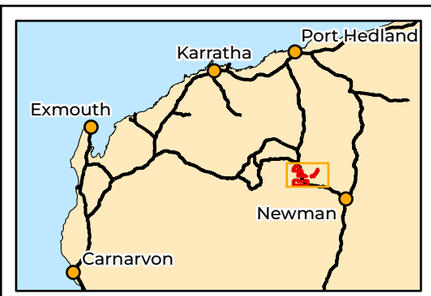
- Fortescue Valley 29
- Fortescue Valley 82
- Fortescue Valley 111
- Hammersley 18
- Hammersley 29
- Hammersley 82
- Hammersley 175
- Hammersley 567

Biologic

Scale 1:240,000

0 5 10 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 22/03/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 2.5: Pre-European vegetation associations of the Study Area

3 Desktop Assessment

3.1 Method

A desktop assessment, comprising database searches and a literature review, was undertaken prior to the field survey. The purpose of the desktop assessment was to identify flora taxa and vegetation types occurring, or potentially occurring, in the Study Area.

3.1.1 Database searches

Eight database searches were undertaken to generate a list of vascular flora taxa previously recorded within, and near the Study Area, including introduced and significant taxa (Table 3.1). The database searches also identified ecological communities/ vegetation types of significance that occur, or may occur, within and near the Study Area. Conservation codes for flora and vegetation of significance are provided in Appendix A.

Table 3.1: Details of database searches from the Study Area

Purpose	Database	Search radius
To identify flora species and communities previously recorded within the Study Area and its vicinity, in particular those of significance	Threatened and Priority Ecological Communities, Species and Communities Branch (DBCA, 2021b)	50 km
	Threatened & Priority Flora (DBCA, 2021c)	
	Western Australian Herbarium (DBCA, 2021c)	
	NatureMap (DBCA, 2021a)	
To identify potential species listed under the federal EPBC Act within the Study Area	Atlas of Living Australia (ALA) (ALA, 2021)	40 km centred on the coordinates: 50K 699401, 7462877
	Protected Matters (DCCEEW, 2024)	
To identify declared pest plants within the Study Area	WAOL (DPIRD, 2021)	Search of the entire Shire of East Pilbara and Shire of Ashburton
BHP WAIO	BHP internal database (BHP WAIO, 2022)	50 km

3.1.2 Review of other reports from the Study Area

A review of other available reports relevant to the Study Area was undertaken to compile a list of significant flora species and vegetation types of interest with the potential to occur within the Study Area. Twenty-seven assessments were reviewed, 17 of which were overlapping or partially overlapping the Study Area, and 10 of which were from within 100 km (Table 3.2; Appendix B).

Table 3.2: Reports used for literature review

Project area	Reference	Survey type
Yandi Ministers North and Mining Area C (MAC)		
Intersecting the Study Area		
Mines, Port, Rail & NPI – Area C Mine	Astron (2017a)	Weed mapping
Mines, Port, Rail & NPI – Rail Network	Astron (2017b)	Weed mapping
Ministers North and Yandi Creek	Biologic (2021)	Detailed
Ministers North and Yandi	Onshore (2020)	Monitoring Desktop
Yandi ML 270SA	Onshore (2011b)	Reconnaissance
Proposed Marillana Creek (Yandi) Mine extension Areas	Ecologia (2008)	Detailed
Area C to Jinayri and Mt Newman Railway	Woodman (2010)	Detailed
Yandi M47/292 Lease & E4 Drill Lines	Maunsell Australia (2004)	Targeted Flora and Vegetation
Ministers North	Biota (2017)	Detailed
Mining Lease M270SA	ENV (2008b)	Detailed
Mining Area C	Onshore (2014)	Desktop Review
Yandi Mine Extension RGP5	Ecologia (2007)	Detailed Interim
Ministers North to Yandi Corridor	Biologic (2017)	Detailed
Area C West to Yandi	Astron (2018)	Reconnaissance
Area C and Surrounds	Onshore (2011a)	Detailed
> 10 km of the Study Area		
Marillana Creek	Onshore (2015)	Detailed
Area C - A, D, P1 and P3 Deposits	Woodman (2009)	Detailed and Gaps Analysis
Mudlark Well		
Intersecting the Study Area		
Mudlark leases	Onshore (2013a)	Detailed
> 10 km of the Study Area		
Alligator Jaws Exploration Lease	ENV (2008a)	Detailed
CPH surrounds		
Intersecting the Study Area		
South Flank	Onshore (2012b)	Detailed
Rapid Growth Project 5 Railway Project	ENV (2008c)	Detailed
Hope Downs 4 Infrastructure Corridor	Mattiske (2008)	Detailed
> 10 km of the Study Area		
Coondewanna Flats	Astron (2011)	Detailed
Jinidi	Onshore (2012a)	Detailed
Tenement E47/1429	Ecologia (2009)	Detailed

Project area	Reference	Survey type
Karijini National Park	Onshore (2013b)	Targeted
Fibre Optic Cable north of West Angelas mine	AECOM (2020)	Reconnaissance

3.1.3 Assessment of occurrence

Significant flora species identified in the database searches and previous reports are assessed per taxon for their likelihood of occurrence in the Study Area. Biologic uses botanical expertise and a decision matrix (Table 3.3) to guide a preliminary occurrence assessment for likely presence of significant flora.

Table 3.3: Assessment of occurrence decision matrix for the Eremaean Botanical Province

		Habitat categories (within the Study Area)			
		Core/ critical habitat present	Suitable habitat present/ within known distribution	Marginal habitat present/ adjacent to known distribution	No suitable habitat present/ outside of known distribution
Species records / Occurrence Categories	Recorded in the Study Area	Confirmed	Confirmed	Confirmed	Confirmed
	Recorded within <5 km	Highly Likely	Likely	Possible	Possible
	Recorded within 5-15 km	Likely	Possible	Possible	Unlikely
	Recorded within 15–40 km	Possible	Possible	Unlikely	Unlikely
	Recorded >40 km	Possible	Unlikely	Unlikely	Highly Unlikely
	Species considered locally/regionally extinct	Unlikely	Unlikely	Highly Unlikely	Highly Unlikely

3.2 Results

3.2.1 Flora

A total of 1,276 vascular flora taxa from 95 families and 348 genera were identified by the database searches as occurring within the 50 km search radius and have potential to occur within the Study Area, including 95 introduced taxa (Appendix C). Seventy-nine flora taxa had known distributions several hundred kilometres away or were excluded names known to not occur in Western Australia. These taxa were assumed to be mis-identifications or a result of taxonomic revisions and have been removed from the desktop assessment. The desktop assessment covered a wide range of landforms, habitats and vegetation types, resulting in a high number of potential flora species occurring within the Study Area.

3.2.1.1 Significant flora

Ninety-two significant flora taxa, as defined by EPA (2016b), were identified from the desktop assessment as potentially occurring in the Study Area (Figure 3.1, Appendix B, Appendix E). Two of these 92 taxa, *Nicotiana umbratica* (P3) and *Eremophila forrestii* subsp. *viridis* (P3) (Mattiske, 2008; Onshore, 2014) were not identified by any of the database searches, but were identified during the literature review from previous surveys. Of the 92 taxa, three were listed as Threatened under the BC Act: *Androcalva adenothalia* (T), *Synostemon hamersleyensis* (T) and *Thryptomene wittweri* (T). The conservation status of *Synostemon hamersleyensis* was updated from Priority 1 to Threatened in 2023. The remaining 89 were categorised as follows:

- Priority 1: 10 taxa;
- Priority 2: 17 taxa;
- Priority 3: 55 taxa; and
- Priority 4: seven taxa.

Androcalva adenothalia (T), is a prostrate shrub reaching 0.03 m high and to 0.25 m wide and is only known from two locations in the wheatbelt (near Morawa and Canna). As this species is only known from these specific locations, more than 700 km from the Study Area *Androcalva adenothalia* (T) was determined to be Highly Unlikely to occur within the Study Area.

Synostemon hamersleyensis (T), is a shrub reaching 1 m high, occurring on steep slopes, scree, cliffs, gorges and on Ironstone. All 30 records occur in the Pilbara bioregion within the Hamersley subregion. Due to the possibility of suitable habitats occurring within the Study Area and known locations 13.4 km north-northeast of the taxa, *Synostemon hamersleyensis* (T), is considered to be Possible to occur within the Study Area.

Thryptomene wittweri (T), a species only known from high mountains peaks, is a spreading conifer-like, aromatic shrub with small, white flowers. Due to the possibility of suitable habitats occurring within the Study Area and known locations 5 km west-northwest of the taxa, *Thryptomene wittweri* (T), is considered to be Possible to occur within the Study Area.

Twenty-six of the 92 flora taxa identified by the desktop assessment were Confirmed to occur within the Study Area. Three taxa were considered Highly Likely to occur within the Study Area, six were considered to be Likely to occur and 21 taxa were considered Possible to occur (Table 3.4). The remaining taxa considered either Unlikely (18) or Highly Unlikely (18) to occur (Appendix E).

Table 3.4: Summary of the assessment of occurrence

Taxa	Source	Proximity from Study Area
Confirmed		
Eremophila sp. West Angelas (S. van Leeuwen 4068) (P2)	A	Within
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)	A	Within
Triodia karijini (S. van Leeuwen 4111) (P2)	A	Within
Aristida jerichoensis var. *subspinulifera* (P3)	^A, L, H, O	Within
Aristida lazaridis (P3)	^A, C, F, L, P, Q, R	Within
Dampiera metallorum (P3)	^A, O	Within
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109) (P3)	A	Within
Eremophila naaykensii (P3)	D	Within
Goodenia lyrata (P3)	A	Within
Goodenia sp. East Pilbara (A.A. Mitchell PRP 727) (P3)	^A, L, R, U	Within
Grevillea saxicola (P3)	^A, O	Within
Indigofera gilesii (P3)	A	Within
Oxalis sp. Pilbara (M.E. Trudgen 12725) (P3)	A	Within
Pilbara trudgenii (P3)	^A, O	Within
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	^A, B, C, H, K, L, O, Q, T, U	Within
Rostellularia adscendens var. *latifolia* (P3)	^A, E, F, H, J, M, Q, R, T	Within
Solanum kentrocaule (P3)	A	Within
Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	^A, C, O	Within
Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	A	Within
Vittadinia sp. Coondewanna Flats (S. van Leeuwen 4684) (P3)	A	Within
Xerochrysum boreale (P3)	A	Within
Acacia bromilowiana (P4)	^A, G, O, Q	Within
Eremophila magnifica subsp. *magnifica* (P4)	^A, I, L, O, Q, T	Within
Lepidium catapycnon (P4)	^A, L, M, P, U	Within
Ptilotus mollis (P4)	^A, M	Within
Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	^A, E, F, G, L, N	Within
Highly Likely		
Dolichocarpa sp. Hamersley Station (A.A. Mitchell PRP 1479) (P3)	A	0.7 km S
Olearia mucronata (P3)	A	0.4 km S
Triodia basitricha (P3)	A	1.2 km NNW

Taxa	Source	Proximity from Study Area
Likely		
Arthropodium vanleeuwenii (P2)	A	2.1 km W
Eremophila pusilliflora (P2)	A	5.3 km W
Acacia effusa (P3)	A	2.2 km N
Eremophila magnifica subsp. *velutina* (P3)	A	0.5 km N
Isotropis parviflora (P3)	^A, M	1.2 km NNW
Streptoglossa sp. Cracking clays (S. van Leeuwen *et al*. PBS 7353) (P3)	A	1.1 km S
Possible		
Synostemon hamersleyensis (T)	A	13.4 km NNE
Thryptomene wittweri (T)	A	5 km WNW
Rhodanthe ascendens (P1)	A	4.4 km W
Cladium procerum (P2)	A	11.1 km ESE
Gompholobium karijini (P2)	A	27 km WNW
Tetratheca fordiana (P2)	A	6.7 km S
Teucrium pilbaranum (P2)	A	0.1 km N
Acacia daweana (P3)	A	18.6 km W
Acacia subtiliformis (P3)	^A, L, M, U	8.5 km ESE
Amaranthus centralis (P3)	^A, R	1.4 km WNW
Euphorbia clementii (P3)	A	5.6 km S
Euphorbia inappendiculata var. *queenslandica* (P3)	A	12.3 km SSW
Euphorbia stevenii (P3)	A	5.6 km S
Fimbristylis sieberiana (P3)	^A, F, G, N, L, S, U	0.4 km SE
Gymnanthera cunninghamii (P3)	^A, F	10.9 km ESE
Iotasperma sessilifolium (P3)	A	15.5 km NNE
Ipomoea racemigera (P3)	^A, R	14.2 km W
Sida sp. Hamersley Range (K. Newbey 10692) (P3)	A	12.8 km S
Stackhousia clementii (P3)	A	10 km NNW
Stylidium weeliwolli (P3)	^A, N, U	10.5 km ESE
Swainsona thompsoniana (P3)	A	5.6 km S

^Indicates reference closest to the Study Area, A= Database searches (TPFL or WAH), B= (AECOM, 2020) , C= (Astron, 2011), D= (Astron, 2018), E= (Biologic, 2017), F= (Biologic, 2021), G= (Biota, 2017), H= (Ecologia, 2009), I= (ENV, 2008a), J= (ENV, 2008c), K= (Mattiske, 2008), L= (Onshore, 2011a), M= (Onshore, 2011b), N= (Onshore, 2012a), O= (Onshore, 2012b), P= (Onshore, 2013b), Q= (Onshore, 2014), R= (Onshore, 2015), S= (Onshore, 2020), T= (Woodman, 2009), U= (Woodman, 2010)

3.2.2 Vegetation

3.2.2.1 Significant Vegetation

One TEC listed under the BC Act is recognised for the Pilbara region of Western Australia, *Themeda* grasslands (*Themeda* sp. Hamersley Station (M.E. Trudgen 11431)) on cracking clays (Critically Endangered) (DBCA, 2023c). This TEC is not listed under the commonwealth EPBC Act. The database searches indicated that no TECs occur within and surrounding (within 50 km) the Study Area.

A total of 43 PECs are recognised for the Pilbara region (DBCA, 2023a), of which 34 are relevant for terrestrial vegetation. Nine PECs are known to occur within 50 km of the Study Area (Table 3.5, Figure 3.2). DBCA buffers for two Priority 1 PECs overlap with the Mudlark Well portion of the Study Area; 'Coolibah - Lignum Flats: sub type 2' and 'West Angelas Cracking-Clays' (Figure 3.2). An additional occurrence of the 'Riparian flora and plant communities of springs and river pools with high water permanence of the Pilbara Region' PEC was identified by Biologic (2021) within Yandicoogina Gorge. A small portion of this occurrence sits within the current Study Area. The occurrence of this PEC is not yet part of the DBCA TEC-PEC database and so is not shown on Figure 3.2.

Table 3.5: Significant ecological communities from the desktop assessment

Community	DBCA	EPBC[1]	Description	Distance from Study Area
Coolibah-lignum flats: *Eucalyptus victrix* over lignum community in the Pilbara			Woodland or forest of *Eucalyptus victrix* (coolibah) over thicket of *Duma florulenta* (lignum) on red clays in run-on zones. Associated species include *Eriachne benthamii*, *Themeda triandra*, *Aristida latifolia*, *Eulalia aurea* and *Acacia aneura*. A series of three sub-types have been identified, of which Subtypes 2 and 3 occur within 50 km of the Study Area.	
	P1	-	• Subtype 2: Coolibah woodlands over lignum (*Duma florulenta*) over swamp wanderrie (Lake Robinson is the only known occurrence).	Buffer overlaps
	P1	-	• Subtype 3: Coolibah woodland over lignum and silky browntop (*Eulalia aurea*) (two occurrences known on Mt Bruce Flats).	37 km WNW
West Angelas Cracking-Clays	P1	-	Open tussock grasslands of *Astrebla pectinata*, *A. elymoides*, *Aristida latifolia*, in combination with low scattered shrubs of *Sida fibulifera*, on basalt (Jerrinah formation) derived cracking-clay loam depressions and flowlines.	Buffer overlaps
Brockman Iron cracking clay communities of the Hamersley Range	P1	-	Rare tussock grassland dominated by *Astrebla lappacea* in the Hamersley Range, on the Brockman land system. Tussock grassland on cracking clays – derived in valley floors, depositional floors. This is a rare community and the landform is rare.	3.5 km W
Weeli Wolli Spring Community	P1	-	Unique sedge and herbfield communities that fringe many of the pools and associated water bodies along the main channels of Weeli Wolli Creek.	4.4 km W
Riparian flora and plant communities of springs and river pools with high water permanence of the Pilbara Region	P2	-	The community includes flora with restricted distributions or populations that are highly disjunct or are major range extensions from northern and eastern Australia. These include *Imperata cylindrica*, *Cladium procerum*, *Schoenus falcatus* and *Fimbristylis sieberiana* (P3), almost exclusively restricted to the riparian zones of permanent wetlands with high soil moisture maintained by groundwater flows.	17.2 km N / 31. km W
Kumina Land System	P3	-	Ferricrete duricrust plains, uplands and plateaux remnants, relief up to 15 m. Duricrust plains and plateau remnants support hard spinifex grasslands.	21.5 km N
Fortescue Marsh (Marsh Land System)	P1	-	Highly diverse ecosystem with fringing mulga woodlands (on the northern side), samphire shrublands and groundwater dependant riparian ecosystems. Endemic *Eremophila* species, populations of priority flora and several near-endemic and novel samphires.	24 km N
Freshwater claypans of the Fortescue Valley	P1	-	Freshwater claypans downstream of the Fortescue Marsh - Goodiadarrie Hills on mulga Downs Station. Larger claypans contain most of the restricted elements of the Pilbara riparian flora. *Eriachne* spp., *Eragrostis* spp. grasslands. Unique community, has few Coolibah.	46 km NNE
Vegetation of sand dunes of the Hamersley Range/Fortescue Valley	P3	-	A small number of these red linear iron-rich sand 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.	40 km W

612000
680000
748000
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7412000
Karijini Dr
Nanuwarra Red Dog Hwy
Tom Price
Tom Price Rd
Paraburdoo Rd
Paraburdoo
Great Northern Hwy
Marble Bar Rd

LEGEND

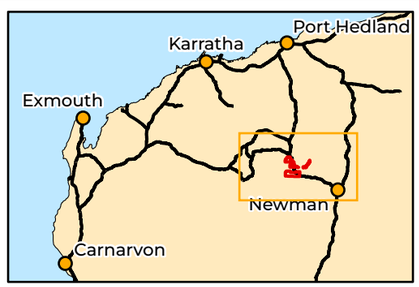
- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:680,000

0 10 20 30 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 29/04/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 3.1: Significant flora from the desktop assessment

Significant Flora

Threatened

- *Seringia exastia*
- *Thryptomene wittweri*

Priority 1

- *Barbula ehrenbergii*
- *Calotis squamigera*
- *Dicrastylis mitchellii*
- *Eragrostis* sp. Mt Robinson (S. van Leeuwen 4109)
- *Eremophila* sp. West Angelas (S. van Leeuwen 4068)
- *Hibiscus* sp. Mt Brockman (E. Thoma ET 1354)
- *Lindernia* sp. Pilbara (M.N. Lyons & L. Lewis FV 1069)
- *Paranotis* sp. Pilbara (H. Ajduk HAOP04a)
- *Rhodanthe ascendens*
- *Samolus* sp. Fortescue Marsh (A. Markey & R. Coppen FM 9702)
- *Synostemon hamersleyensis*
- *Tecticornia globulifera*
- *Tecticornia* sp. Christmas Creek (K.A. Shepherd & T. Colmer et al. KS 1063)
- *Triodia* sp. Karijini (S. van Leeuwen 4111)
- *Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684)

Priority 2

- *Adiantum capillus-veneris*
- *Aristida lazaridis*
- *Arthropodium vanleeuwenii*
- *Cladium procerum*
- *Eremophila pusilliflora*
- *Euphorbia inappendiculata* var. *inappendiculata*
- *Euphorbia inappendiculata* var. *queenslandica*
- *Gompholobium karijini*
- *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708)
- *Indigofera ixocarpa*
- *Ipomoea racemigera*
- *Isotropis parviflora*
- *Kohautia australiensis*
- *Oxalis* sp. Pilbara (M.E. Trudgen 12725)
- *Pentalepis trichodesmoides* subsp. *hispida*
- *Scaevola* sp. Hamersley Range basalts (S. van Leeuwen 3675)
- *Tetratheca fordiana*
- *Teucrium pilbaranum*

Priority 3

- *Acacia daweana*
- *Acacia effusa*
- *Acacia subtiliformis*
- *Amaranthus centralis*
- *Ampelopteris prolifera*
- *Aristida jerichoensis* var. *subspinulifera*
- *Atriplex flabelliformis*
- *Dampiera anonyma*
- *Dampiera metallorum*
- *Dolichocarpa* sp. Hamersley Station (A.A. Mitchell PRP 1479)
- *Dysphania congestiflora*
- *Eleocharis papillosa*
- *Eragrostis crateriformis*
- *Eragrostis* sp. Erect spikelets (P.K. Latz 2122)
- *Eremophila magnifica* subsp. *velutina*
- *Eremophila rigida*
- *Eremophila* sp. Hamersley Range (K. Walker KW 136)
- *Eremophila spongiocarpa*
- *Euphorbia australis* var. *glabra*
- *Euphorbia clementii*
- *Euphorbia stevenii*
- *Fimbristylis sieberiana*
- *Geijera salicifolia*
- *Glycine falcata*
- *Goodenia lyrata*
- *Goodenia* sp. East Pilbara (A.A. Mitchell PRP 727)
- *Grevillea saxicola*
- *Gymnanthera cunninghamii*
- *Indigofera gilesii*
- *Iotasperma sessilifolium*
- *Olearia mucronata*
- *Pilbara trudgenii*
- *Rhagodia* sp. Hamersley (M. Trudgen 17794)
- *Rostellularia adscendens* var. *latifolia*
- *Sida* sp. Barlee Range (S. van Leeuwen 1642)
- *Sida* sp. Hamersley Range (K. Newbey 10692)
- *Solanum kentrocaule*
- *Stackhousia clementii*
- *Streptoglossa* sp. Cracking clays (S. van Leeuwen et al. PBS 7353)
- *Stylidium weeliwolli*
- *Swainsona thompsoniana*
- *Tecticornia medusa*
- *Themeda* sp. Hamersley Station (M.E. Trudgen 11431)
- *Triodia basitricha*
- *Triodia* sp. Mt Ella (M.E. Trudgen 12739)
- *Xerochrysum boreale*

Priority 4

- *Acacia bromilowiana*
- *Eremophila magnifica* subsp. *magnifica*
- *Eremophila youngii* subsp. *lepidota*
- *Goodenia nuda*
- *Lepidium catapycnon*
- *Ptilotus mollis*
- *Rhynchosia bungarensis*

Biologic

612000 680000 748000 816000

7480000

7412000

Nanutarra Munjina Rd

Manuwarra Red Dog Hwy

Tom Price

Karijini Dr

Marble Bar Rd

Great Northern Hwy

Newman

Community - Category

- Brockman Iron cracking clay communities of the Hamersley Range - Priority 1
- Coolibah - Lignum Flats: sub type 2: Coolibah woodlands over lignum (Duma florulenta) over swamp wanderrie (Lake Robinson) - Priority 1
- Coolibah - Lignum Flats: sub type 3. Coolibah woodland over lignum over silky browntop (Mt Bruce flats) - Priority 1
- Fortescue Marsh (Marsh Land System) - Priority 1
- Freshwater claypans downstream of the Fortescue Marsh - Goodiadarrie Hills on Mulga Downs Station. - Priority 1
- Weeli Wolli Spring Community - Priority 1
- West Angelas Cracking-Clays - Priority 1
- Riparian flora and plant communities of springs and river pools with high water permanence of the Pilbara Region - Priority 2
- Kumina Land System - Priority 3
- Vegetation of sand dunes of the Hamersley Range/Fortescue Valley - Priority 3

LEGEND

- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:680,000

0 10 20 30 Km

Coordinate System: GDA 1994 MGA Zone 50 Transverse Mercator Created: 02/12/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 3.2: Significant ecological communities from the desktop assessment

4 Field survey

4.1 Method

4.1.1 Survey timing and personnel

The field survey was undertaken over eight trips from November 2021 to July 2023, by 11 botanists, two zoologists and two field technicians over 175 person days. The survey consisted of six trips to undertake single-phase detailed surveying (March to June 2022 and April to June 2023) and two trips to undertake additional targeted surveys (November 2021 and July 2023). Each single-phase detailed survey (Trips 2-7) also involved targeted searches as and when the teams observed significant flora or suitable habitat in the field. The field survey dates, and effort are detailed in Table 4.1.

Table 4.1: Survey timing breakdown

Survey Type	Start Date	End Date	Study Area
Targeted Survey (Trip 1)	23 Nov 2021	27 Nov 2021	Pineapple Hill & Camp Hill
Detailed Single Phase (Trip 2)	9 Mar 2022	15 Mar 2022	Pineapple Hill & Camp Hill
			MAC to Yandi Rail Corridor
Detailed Single Phase (Trip 3)	24 Mar 2022	31 Mar 2022	Pineapple Hill & Camp Hill
Detailed Single Phase (Trip 4)	27 Apr 2022	4 May 2022	Mudlark Well
Detailed Single Phase (Trip 5)	13 Jun 2022	20 Jun 2022	Mudlark Well
Detailed Single Phase (Trip 6)	17 Apr 2023	21 Apr 2023	Mudlark Well
Detailed Single Phase (Trip 7)	10 Jun 2023	16 Jun 2023	Pineapple Hill & Camp Hill
Targeted Survey (Trip 8)	12 Jul 2023	19 Jul 2023	Pineapple Hill & Camp Hill
			MAC to Yandi Rail Corridor
			Mudlark Well

Principal Botanist Clinton van den Bergh managed the overall project and led the field surveys with assistance from Pierre-Louis de Kock, Sam Coultas, and Emily Eakin-Busher as required (Table 4.2). Biologic has a well-established and experienced botanical team with the project lead having over 17 years' experience in botanical surveys in WA. All personnel held the current and relevant licencing and had adequate experience for the bioregion. All team leads had over 5 years' experience as required by the technical guidance (EPA, 2016b). The field survey was split into eight separate trips, with all trips completed during the recommended survey period for the Pilbara March–June (EPA, 2016b), excluding the targeted surveys which were undertaken in November 2021 (Trip 1) and July 2023 (Trip 8). Although these surveys occurred outside of the recommended survey period, the targeted survey concentrated on perennial taxa (i.e., *Eremophila naaykensii*) that could be identifiable outside of the recommended survey period.

Table 4.2: Project team & licences

Biologic Personnel	Project Involvement	Licencing	Experience
Principal Botanists			
Clinton van den Bergh	Project management support, reviewer for quality assurance. Field survey • Trip 2, Trip 4, Trip 5, Trip 6, Trip 7 and Trip 8	FB62000453 TFL 2223-0030	18 yrs
Ryonen Butcher	Field survey • Trip 2, Trip 3, and Trip 4	FB62000134 TFL 134B-2021	20+ yrs
Beth Loudon	Field survey • Trip 3	FB62000049-2 TFL 140-2122	20+ yrs
Pierre-Louis de Kock	Field survey • Trip 1 and Trip 4	FB62000034	14+ yrs
Senior Botanists			
Sam Coultas	Field survey • Trip 3	FB62000017-2, TFL 60-1819	8+ yrs
Emily Eakin-Busher	Statistical analysis, vegetation mapping and reporting. Field survey: • Trip 2, Trip 3 and Trip 5	FB62000160 TFL 53-1920	5 yrs
Chè Parker	Field survey: • Trip 5	-	6 yrs
Rachel Meissner	Specimen identification	–	15+ yrs
Rachel Butler	Specimen identification	–	14 yrs
Botanists			
Darcy Reith	Field survey: • Trip 2	FB62000359 TFL 2223-0092	2 yrs
Emma Marsh	Desktop assessment., reporting & data support; taxonomic support. Field survey: • Trip 4 and Trip 5	FB62000233-4	2.5 yrs
Kaylin Geelhoed	Data entry & processing, data analysis support. Field survey: • Trip 3 and Trip 6	FB62000238-2	4 yrs
Kay Greenacre	Data entry & processing, data analysis support. Field survey: • Trip 8	–	1 yr

Biologic Personnel	Project Involvement	Licencing	Experience
Zoologists			
Sam Edwards	Field survey • Trip 1	–	1 yr
Georgina Mattner	Field survey • Trip 7	–	3 yr
Field Technicians			
David Symons	Field survey: • Trip 8	–	15+ yrs
Crete Hinchliffe	Field survey: • Trip 8	–	10+ yrs

4.1.2 Weather and climate

The survey was designed to sample the Study Area at multiple times of the year for adequate seasonal timing and optimal species representation. Seasonal timing on the field surveys was adequate and is not expected to present a limitation for the project. In the six months prior to each of the eight field trips, mean temperatures were compared to long-term averages (1996 to 2023) (LTA) and mean rainfall was compared to LTA (1971 to 2023) for each of the field trips (Sections 4.1.2.1 to 4.1.2.4, Figure 4.1).

Weather conditions during the eight field trips were adequate to complete the survey; generally fine and slightly overcast, with temperature maximums ranging from 27-37°C. Weather conditions did not present any survey limitations. The seasonal timing of the surveys was appropriate for this level of survey for the Eremaean (March to June (wet season) and after winter rainfall (dry season)). Trip 1 and Trip 8 Targeted surveys (November 2021 and July 2023) were outside the primary survey timing; however, the targeted surveys concentrated on perennial taxa that could be identifiable during the month of November. The majority of flora species were exhibiting flowering material and ephemeral species were evident.

4.1.2.1 Dry Season Survey 2021: Trip 1

In the six months prior to Trip 1 Targeted survey (November 2021), the mean minimum and maximum temperatures were comparable to the LTA (Figure 4.1). Collective rainfall in the six months prior to the survey was below the LTA for the same period (-55.2 mm). It should also be noted that the three months prior to this survey the Newman Aero weather station received 0.0 mm of rainfall (16.6 mm lower than the LTA over the same period) (BoM, 2024a). However, extended periods of no rainfall across the 'dry season' in the Pilbara is not unusual.

4.1.2.2 Wet Season Survey 2022: Trips 2, 3, 4 and 5

In the six months prior to the 2022 Detailed surveys (Trips 2-5; March, April, and June 2022), mean minimum and maximum temperatures were comparable to the long-term averages (Figure 4.1). Collective rainfall in the six months prior to each survey was below the LTA for the same period (-87.6 mm (Trips 2 and 3), -91.9 mm (Trip 4) and -64.9 mm (Trip 5)). The conditions were still suitable for a wet season survey given there was high rainfall received in February 2022 (73 mm), within eight weeks of Trips 2, 3 and 4 (BoM, 2024a). The average rainfall three months prior to Trip 5 (June 2022) also received above average rainfall compared to the LTA rainfall (13.9 mm above LTA rainfall), with May 2022 receiving 59.4 mm (40.4 mm above the LTA rainfall for that month). This above average rainfall occurred because of a tropical cyclone and tropical low off the coast of WA.

4.1.2.3 Wet Season Survey 2023: Trips 6 and 7

In the six months prior to the 2023 Detailed surveys (Trips 6 and 7; April and June 2023), mean minimum and maximum temperatures were comparable to the LTA (Figure 4.1). Collective rainfall in the six months prior to each survey was only just below the LTA for the same period (-9.9 mm (Trip 6) and -17.1 mm (Trip 7)) (BoM, 2024a). However, the average rainfall three months prior to Trip 6 (April 2023) received above average rainfall compared to the LTA rainfall (55.9 mm above LTA rainfall), with March 2023 receiving 118.4 mm (77.6 mm above the LTA rainfall for that month). This above average rainfall occurred because of a tropical cyclone and tropical low off the coast of WA.

4.1.2.4 Dry Season Survey 2023: Trip 8

In the six months prior to Trip 8 Targeted survey (July 2023), the mean minimum and maximum temperatures were comparable to the LTA (Figure 4.1). Collective rainfall in the six months prior to survey was only marginally below the LTA for the same period (-10.6 mm) (BoM, 2024a).

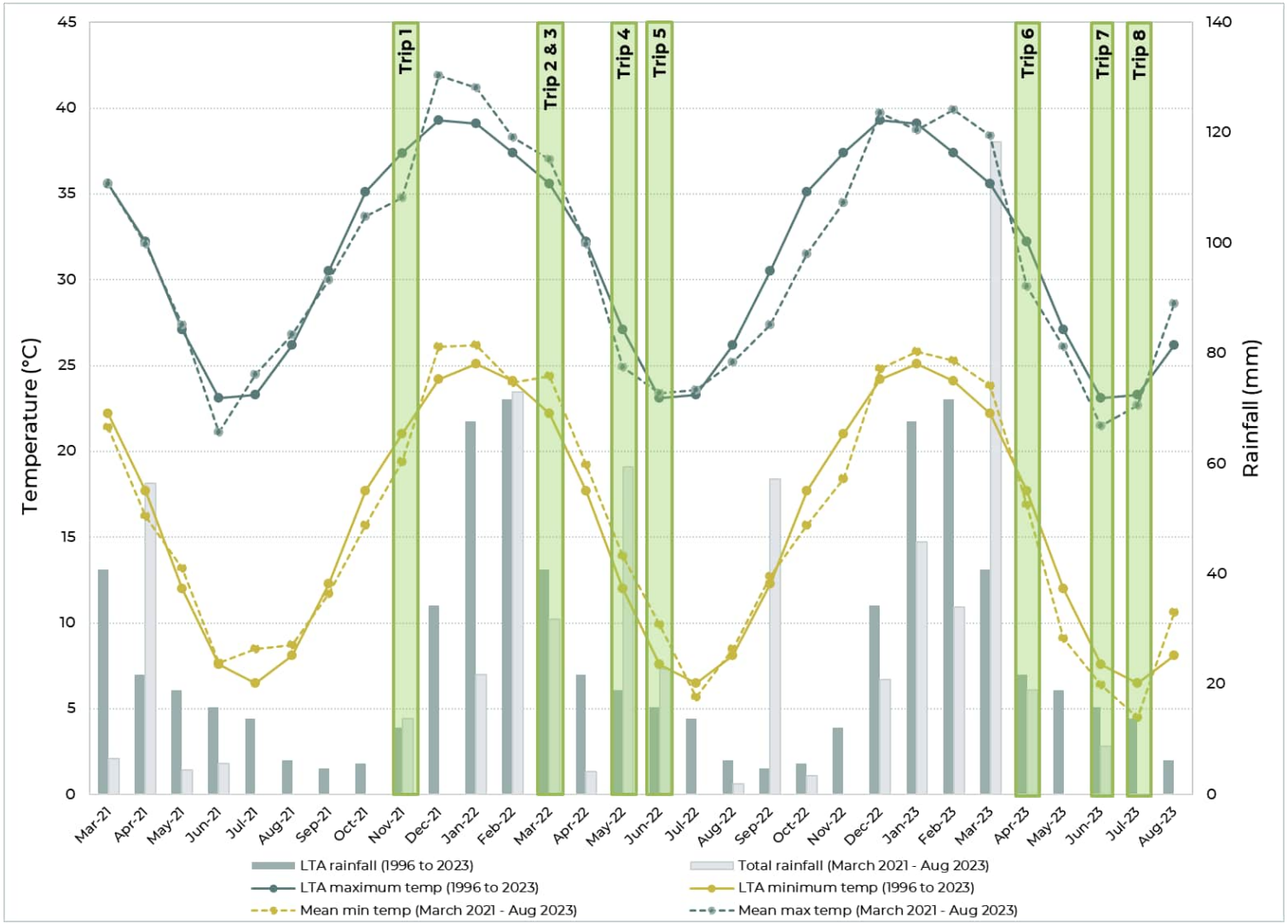


Figure 4.1: Long term and current climatic data for the Study Area BoM Station #007176) (BoM, 2024a) with approximate survey timing shown in shaded boxes

4.1.3 Detailed flora survey

A single-phase detailed and targeted flora and vegetation assessment was carried out, across the Study Area. Detailed surveys require quadrat data for replicated and delineated representation of vegetation composition to support statistical analysis. A combination of quadrats, relevés, meandering traverses, and opportunistic sampling is appropriate for a detailed flora survey (EPA, 2016b). These techniques are described in Table 4.3.

A total of 195 quadrats, 33 relevés, and 33 mapping notes were sampled (Figure 4.2). In addition to the quadrat sampling, targeted searches for significant flora were also undertaken across the Study Area.

Biologic utilised a helicopter to access areas with limited vehicle tracks. Survey effort was focused on priority areas that had either previously not been surveyed or where historical quadrat data was greater than five years old. Prior to field mobilisation, site locations were selected using a combination of aerial imagery, surface geology layers, contour mapping and specialist knowledge of Pilbara vegetation communities. These sites were selected to be representative of the vegetation in the Study Area. Parts of the Study Area that looked unusual from the aerial imagery or appeared to represent potential habitat for significant flora and vegetation were also targeted. Where possible, a minimum of three quadrats were established and sampled within each vegetation unit, with additional quadrats assigned to larger units to ensure spatial coverage. Survey effort is presented in Figure 4.2, quadrat site data presented in Appendix C and Site by Species Matrix included as Appendix G.

Table 4.3: Field survey techniques

Approach	Description
Quadrat	A comprehensive and replicable survey technique for gathering information during a detailed flora and vegetation assessment. A clearly defined area of set proportions, giving a consistent assessment of flora and vegetation across the Study Area. Each quadrat represents a vegetation type and each vegetation type must be represented by a minimum of three quadrat sites where practicable. Information collected at each quadrat includes: • Site code, date, location, botanist; • One photograph (as a minimum), from the NW corner of the site; • Vegetation condition and disturbances (including fire); • Landform including: slope, soil, rock type, aspect; • Flora and vegetation information; dominant cover, structure and species count where necessary; and • Comprehensive recording of every species within the quadrat boundary (50 x 50 m for a Pilbara botanical survey).

Approach	Description
Relevé	Relevé sites used in a detailed survey are employed to support the vegetation mapping and survey effort. They are a lower intensity survey technique or sampled where quadrats are too dangerous to set up (such as steep slopes), or too small/disturbed to sample effectively (i.e., drill lines close together). Information collected at each relevé is the same as that of a quadrat site, excluding the comprehensive collection of every species within the quadrat boundary.
Vegetation Mapping Note	Vegetation mapping notes were used to ground-truth existing vegetation mapping and significant flora locations. They are a lower intensity, unbounded, survey technique. Information collected at each mapping note may vary in detail depending upon what is present and needed for that site. The following was recorded as a minimum: location co-ordinates, representative photograph and brief description of the vegetation mapping note focus.
Traverse/Meandering Traverse	A traverse is an unmarked route along which data is collected. Traverses are useful for identifying the boundaries and characteristics of vegetation types, selecting sites for detailed survey, and targeting significant flora or vegetation. Information recorded along a traverse during this assessment was the same as a mapping note, with the addition of noting vegetation changes and relationships between vegetation and substrate.
Opportunistic (Supplementary) Sampling	Flora and vegetation not recorded through other sampling methods were opportunistically sampled as encountered in the survey. Opportunistic sampling also included recording locations of significant, introduced (weed) and unknown species.
Targeted Sampling	Areas likely to support significant flora or vegetation were targeted during the survey. Including areas with existing records of significant flora. Areas were selected based on existing records from database searches, geology, vegetation mapping and known Environmentally Sensitive Areas (ESAs; such as PEC/TEC or GDE). Where possible, unusual and restricted geological features were sampled. When significant flora taxa were encountered or potentially during a survey, sufficient information was recorded in compliance with a Threatened and Priority Flora Report Form (TPRF) pursuant to the conditions of the flora taking licencing and authorisation to collect threatened flora.

4.1.4 Targeted flora survey

Prior to the survey, a list of significant flora known to, with the likelihood to, or potential to occur within the Study Area was compiled. Field personnel familiarised themselves with photographs, reference samples and descriptions of these taxa before conducting the survey. Once on the ground, personnel actively searched while traversing the Study Area and in known locations or preferred habitat encountered in the field.

Targeted searching was undertaken for flora of significance, as identified during the desktop assessment. Taxa that were confirmed or considered Highly Likely, Likely or Possible to occur within the Study Area were targeted, based on the Assessment of Occurrence matrix presented in Section 3.1.3. The meandering targeted searches while traversing the Study Area focussed on habitat considered likely to support conservation significant flora.

If a significant taxon was identified, a GPS coordinate of the individual was taken when occurring in isolation, or a central GPS coordinate was taken for a small population (central coordinate with an approximate 20 m radius). Information collected at each location comprised:

- Number of individuals, for a small population;
- Condition and reproductive status of the plants in each population;
- Photographs and description of vegetation habitat;
- Broad information on vegetation type and condition; and
- Coordinates of either each plant (if few) or the extent of the population (if many) using a GPS.

4.1.5 Flora

4.1.5.1 Nomenclature and specimen identification

Flora nomenclature used in this report is consistent with the Western Australian Herbarium (WAH) plant census, provided on Florabase (WAH, 1998–). All species names are current at the time of report preparation.

Specimens were identified by Dr Rachel Meissner, Rachel Butler and Sam Coultas supported by the Biologic botanical team using the appropriate taxonomic keys, Western Australian reference herbarium and, where required, relevant taxonomic experts at the WAH.

Significant flora specimens or new introduced species for the region were submitted to the WAH for confirmation. The submitted specimens list and their confirmed identification is provided in Appendix H.

4.1.5.2 Significant flora

Threatened and Priority Flora Report Forms will be provided to the Parks and Wildlife Division (Parks and Wildlife) of DBCA, as required under the flora collecting permits. Significant flora specimens will be vouchered with the WAH, where required and appropriate.

660000 670000 680000 690000 700000

7480000 7470000

Great Northern Hwy

CPH-090 CPH-091 CPH-092 CPH-072 CPH-069 CPH-068 CPH-071 CPH-064 CPH-066 CPH-067 CPH-089 CPH-082 CPH-076 CPH-078 CPH-079 CPH-077 CPH-074 CPH-080 CPH-081 CPH-062 CPH-075 CPH-084 CPH-061 CPH-094 CPH-096 CPH-085 CPH-088 CPH-060 CPH-099 CPH-097 CPH-093 CPH-087 CPH-063 CPH-098 CPH-095 CPH-100 CPH-086 CPH-059 CPH-058 CPH-053 CPH-198 CPH-056 CPH-501 CPH-195 CPH-194 CPH-230 CPH-057 CPH-049 CPH-196 CPH-048 CPH-229 CPH-054 CPH-232 CPH-233 CPH-050 CPH-051 CPH-231 CPH-168 CPH-199 CPH-044 CPH-176 CPH-172 CPH-173 CPH-055 CPH-047 CPH-043 CPHR-177 CPH-175 CPH-169 CPH-171 CPH-192 CPH-042 CPH-046 CPH-191 CPH-193 CPH-189 CPH-190 CPH-041 CPH-045

CPH-229 CPH-233 CPH-054 CPH-050 CPH-168 CPH-199 CPH-167 CPH-055 CPH-179 CPH-176 CPH-172 CPH-173 CPH-170 CVR-01 CPH-166 CPH-178 EMR-01 CPH-174 CPH-169 CPH-047 CPH-175 CPH-180 CPH-171 CPHR-177 CPH-192 CPH-191 CPH-189 CPH-193 CPH-190

LEGEND

- Study Area
- Approval Boundary
- Priority Area
- State Road
- Rail

Sampling Type

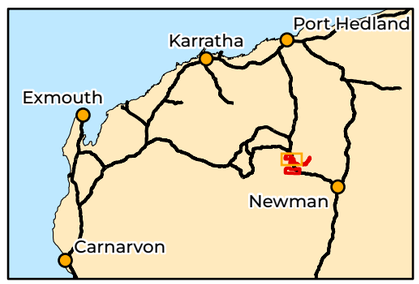
- Quadrat
- Relevé
- Vegetation Mapping Note
- Traverse

Biologic

Scale 1:116,000

0 1 2 3 4 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.2a: Sample sites and traverses

700000
710000
720000
730000
7480000
7470000

CPH-005
CPH-001
CPH-006
CPH-037
CPH-002
CPH-017
CPH-023
CPH-024
CPH-026
CPH-022
CPH-021
CPHR-001
CPH-031
CPH-040
CPH-032
CPH-038
CPH-039
CPHR-003
CPH-004
CPH-019
CPH-003
CPH-005
CPH-001
CPH-002
CPH-037
CPH-018
CPH-007
CPH-010
CPH-008
CPH-011
CPH-012
CPH-013
CPH-009
CPH-014
CPH-020
CPH-025
CPH-016
CPH-015
CPHR-002
CPH-017
CPH-035
CPH-023
CPH-022
CPH-036
CPH-026
CPH-021
CPH-034
CPH-028
CPH-027
CPH-033
CPH-030
CPH-029
CPH-031

LEGEND

Study Area
Approval Boundary
Priority Area
Rail

Sampling Type
Quadrat
Relevé
Vegetation Mapping Note
Traverse

Biologic

Scale 1:86,000
0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024

Karratha
Port Hedland
Exmouth
Newman
Carnarvon

BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.2b: Sample sites and traverses

670000

680000

690000

7450000

7440000

Great Northern Hwy

CPH-224 CPH-200 CPH-165 CPHR-162 CPH-160 CPH-161 CPH-163 CPH-201 CPH-218 CPH-164 CPH-159 CPH-202 CPH-219 CPH-157 CPH-205 CPH-158 CPH-156 CPH-217 CPH-155 CPH-154 CPH-203 CPH-204 CPH-216 CPH-151 CPH-228 CPH-153 CPH-226 CPH-150 CPH-143 CPH-139 CPH-227 CPH-214 CPH-149 CPH-152 CPH-140 CPH-144 CPH-148 CPH-138 CPH-132 CPH-147 CPH-146 CPH-141 CPH-136 CPH-124 CPH-125 CPH-145 CPH-142 CPH-135 CPHR-125 CPH-131 CPH-127 CPH-126 CPH-128

CPH-104 CPH-188 CPH-184 CPH-182 CPH-183 CPH-186 CPH-185 CPH-101 CPH-181 CPH-187 CPHR-102 CPHR-103 CPH-105 CPH-107 CPH-108 CPHR-109 CPHR-110 CPH-113 CPH-111 CPHR-114 CPH-112 CPH-115 CPH-221 CPH-206 CPH-210 CPH-116 CPH-209 CPH-120 CPH-117 CPH-119 CPH-118 CPH-121 CPH-122 CPH-123 CPH-220 CPH-211 CPH-212

Great Northern Hwy

CPHR-103 CPH-105 CPHR-106 CPH-107

CPH-132 CPH-133 CPH-134 CPH-136 CPH-124 CPH-125 CPH-135 CPH-129 CPHR-125 CPH-131 CPH-130 CPH-127

LEGEND

- Study Area
- Approval Boundary
- Priority Area
- State Road
- Rail

Sampling Type

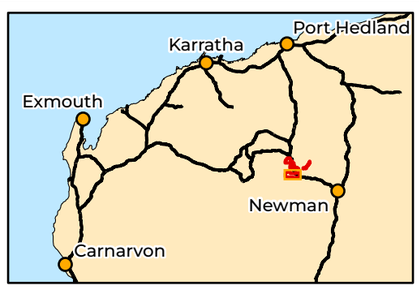
- Quadrat
- Relevé
- Vegetation Mapping Note
- Traverse

Biologic

Scale 1:93,000

0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.2c: Sample sites and traverses

4.1.5.3 Introduced flora

While completing the detailed flora assessment and targeted searches, any significant environmental weeds were noted. Significant environmental weeds refer to any plant listed in the WoNS, and DPs listed under Section 12 and Section 22 of the BAM Act. Records of any introduced species identified in the Study Area were recorded and searched with a minimum 20 m radius to establish population density and extent. Each record noted the number of individual plants and map the spatial extent of the infestation. Weed classification definitions are provided in Appendix A.

4.1.6 Vegetation

Vegetation was sampled using quadrats, relevés, and vegetation mapping notes, including information on disturbance and condition. The sampling methods were carried out in accordance with EPA technical guideline (EPA, 2016b).

4.1.6.1 Vegetation Mapping

The current nationally adopted classification system for vegetation descriptions is the *Native Vegetation Information System* (NVIS) (NVIS Technical Working Group, 2017) (Appendix I). NVIS seeks to manage national vegetation data to help improve vegetation planning and management within Australia including standardising scale and technical wording for vegetation associations. Vegetation types and condition is mapped in accordance with the scale for NVIS level V (Appendix I, Appendix J). Vegetation descriptions and nomenclature followed BHP guidance (BHP, 2018b).

Vegetation assemblages were ground truthed during the survey, with site photographs and full descriptions recorded at each sampling site. Floristic data collected from quadrats during Trips 2 – 5 were statistically analysed (Section 4.1.6), with vegetation units determined based on the statistical outputs (i.e. dendrograms) and the BHP WAIO geodatabase of previous vegetation mapping. No further statistical analysis was undertaken following Trips 6 – 7 as substantial analysis had already been undertaken using data from Trips 2 – 5. However, floristic data from Trips 6 and 7 was checked to ensure consistency with the existing vegetation types and incorporated into the vegetation mapping where relevant.

For areas that had existing recent BHP WAIO vegetation units and mapping linework (i.e. within five years) sampling was not as intensive. These areas included portions of the MAC to Yandi Rail Corridor, where the existing mapping and survey work was sufficient. Extensions to vegetation mapping and updates to mapping boundaries using data collected during Trips 2 – 7 were aligned with existing mapping based on floristics and by comparison with existing mapping and data.

4.1.6.2 Floristic data analysis

Analysis of the field survey results were conducted to assist with delineating vegetation types and to assess survey adequacy. Floristic composition for vegetation classification is a repeatable method and is considered more suitable for identification of significant vegetation as it focuses on the suite of species present within a quadrat (EPA, 2016b). During the survey, flora taxa were recorded using an estimate of the foliage cover of each species within each quadrat. Multivariate statistics were carried out using R version 4.3.1 (R Core Team, 2023), which is a commonly used and accepted method for delineating vegetation communities.

4.1.6.3 Data transformation and reconciliation

During the survey, flora taxa were recorded using an estimate of the foliage cover of each species within each quadrat. Following the June 2022 survey, the flora taxa list was reconciled to amalgamate selected taxa, e.g., varieties of the same species (Appendix K). During reconciliation of the dataset, weeds and unconfirmed taxa (i.e., *Acacia ?sibirica*) were removed. Where removal of a dominant taxon could change the vegetation unit, unconfirmed taxa were included (e.g., *Acacia ?aneura* was included as *Acacia aneura*). Relevé sites were excluded from the analyses as records from these comprise presence/absence data only. The final dataset used in the dendrogram analyses comprised 420 flora taxa from 151 sample sites (Appendix G).

4.1.6.4 Hierarchical clustering

To allow for differences in cover and potential differences between observers, the cover values were transformed based on an adapted Braun-Blanquet method (1 = <1%; 2 = 1–5%; 3 = 6–25%; 4 = 26–50%; 5 = 51–75%; and 6 = >75%). Singletons (taxa which were only recorded once) were removed from the dataset. The cover code values for the floristic data recorded for each quadrat were compiled in R before a resemblance matrix and dendrogram were created. The similarity testing was undertaken using the Bray Curtis coefficient. Vegetation units were defined based on 40–80% similarity and distinguished visually in a dendrogram (Appendix L).

4.1.6.5 Species accumulation curve

Species accumulation curves provide a visual overview of the observed number of flora taxa as the number of sample sites (quadrats) increases. When a curve approaches an asymptote (i.e., flattens), it suggests that sampling effort has been sufficient to collect the taxa comprising the floral assemblage at the locations sampled (Thompson *et al.*, 2003). The value at which the curve reaches an asymptote can also be used as an approximate measure of the total size of the species complement at that location (Thompson *et al.*, 2003). The species accumulation curves were created using the reconciled native flora taxa list for each quadrat

sampled for Trips 2-7 (Figure 4.3). These curves were based on presence absence data, with a random sample order and a maximum 999 permutations. Estimator curves (Chao, Jackknife 1, Jackknife 2 and Bootstrap) were also used to predict the number of taxa that may have actually been present. If there is a substantial difference in number of species observed to that estimated by the curve, or if the curve does not approach asymptote, discussion around survey effort is encouraged.

4.1.7 Review of assessment of occurrence

Significant flora species identified in the database searches and previous reports are assessed per taxa for their likelihood of occurrence in the Study Area (Section 3.1.3). Following the field assessment, ground-truthing of existing significant flora records and presence of potential habitat is reviewed to revise the occurrence assessment per taxa.

The detailed survey results present a summary of the revised occurrence assessment in Section 4.2.5. The full detail of the preliminary and revised occurrence assessment is presented in Appendix E for each significant taxa returned in the database searches within 50 km of the Study Area.

4.2 Results and Discussion

4.2.1 Survey adequacy

A total of 261 sites were sampled across the priority areas of Study Area (195 quadrats, 33 relevés, and 33 vegetation mapping notes), totalling 0.01 sites sampled per hectare of native vegetation. BHP (2018b) suggest that the intensive sampling of quadrats (i.e., during detailed surveys) shall allow for a minimum of one quadrat per square kilometre (km^2). The establishment and sampling of 195 quadrats equates to approximately 0.8 quadrats per km^2 which is less than the BHP recommendation (using the 25,566.84 ha or 256 km^2 of priority areas). This is acceptable in this instance, as there were portions of the priority areas that had been surveyed recently (< 5 years), including portions of the Pineapple Hill and Camp Hill, and MAC to Yandi Rail Corridor areas of the Study Area. These areas were sampled at a lower intensity, while some other areas were only required to be sampled via targeted flora traverses due to existing survey data and knowledge, access constraints (within mining tenure), or existing disturbances to vegetation.

The sampling intensity of 0.01 sites per ha is consistent with the flora and vegetation surveys reviewed in the desktop assessment, ranging from 0.003 to 0.37 sites per ha (Table 4.4). Not all the reports reviewed in the desktop assessment are included due to survey type (i.e., desktop or targeted surveys) and missing information in the reports (i.e., size of the Study Areas).

Table 4.4: Comparison of survey intensity and effort

Survey	Study Area Size (ha)	Number of Taxa Recorded	Number of Sampling Sites	Sites / ha
AECOM (2020)	21.7	52	8	0.37
Onshore (2015)	1,028	399	277	0.27
ENV (2008b)	106	114	8	0.08
Ecologia (2009)	3,310	353	132	0.04
Ecologia (2007)	2,400	212	60	0.03
Onshore (2011b)	13,210	452	325	0.02
ENV (2008a)	2,035	264	46	0.02
Woodman (2010)	19,020	203	379	0.02
Astron (2018)	3,729	102	67	0.02
Onshore (2011a)	29,411	497	510	0.02
Biologic (2017)	2,025	260	32	0.02
Current survey (priority areas only)	**25,566.85**	**543**	**261**	**0.01**
Ecologia (2008)	7,200	333	102	0.01
Biota (2017)	3,030	361	37	0.01
Onshore (2012b)	18,627	386	220	0.01
Biologic (2021)	3,756	279	34	0.009
Astron (2011)	6,756	308	43	0.006
ENV (2008c)	31,110	n/a	159	0.005
Mattiske (2008)	29,700	392	139	0.005
Woodman (2009)	17,800	262	62	0.003

A species accumulation curve for the Study Area produced a curve that steadily increases, with estimators starting to plateau, with Chao 1 estimator starting to reach asymptote (Figure 4.3). Richness estimators indicated that the survey was approximately 82.2% (Jacknife 1) to 90.90% (Bootstrap) adequate (Table 4.5). The survey adequacy exceeds expected native species richness (based on Bootstrap estimate with 101.3%) when the additional 53 observations (not observed from the quadrats) are included in the assessment (Table 4.5).

Table 4.5: Expected native species richness for the Study Area

Treatment	Results	Richness Estimates	
		Based on Species Observed (461)	Based on Total# (514)
Chao 1	551.4 ± 23.8	83.60%	93.20%
Jacknife 1	560.5 ± 18.8	82.20%	91.70%
Bootstrap	507.3 ± 11	90.90%	101.30%
SOBS^	461		

^ Observed species richness i.e. number of reconciled confirmed native flora species recorded from quadrats.
# Total includes taxa not found in quadrats.

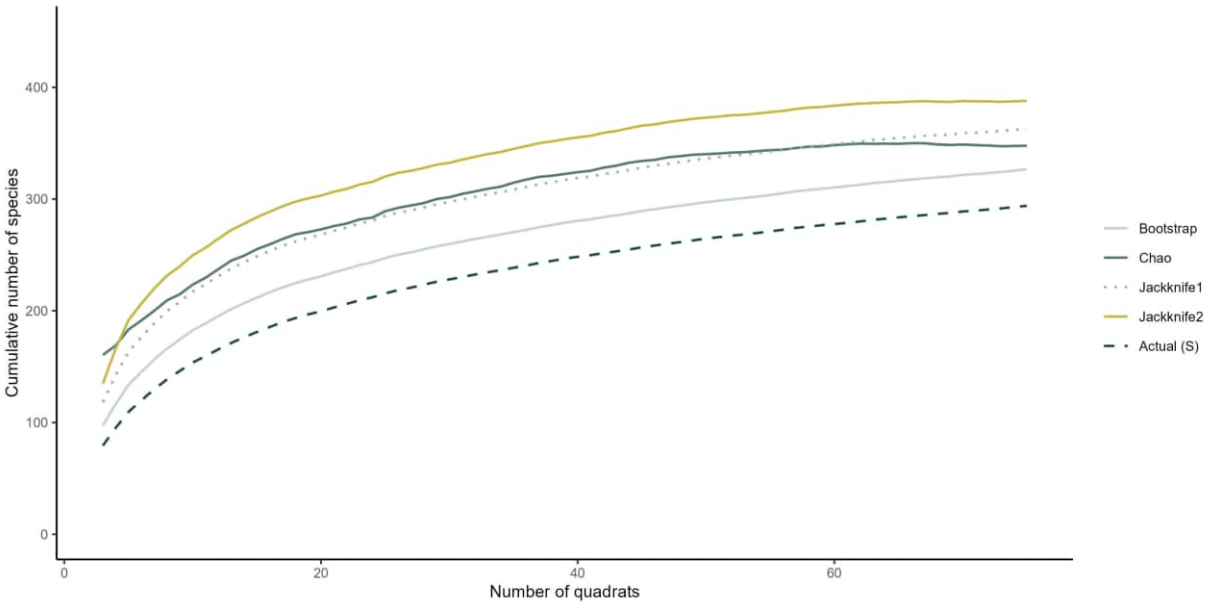


Figure 4.3: Species accumulation curve for the Study Area

4.2.2 Flora composition

A total of 548 confirmed vascular flora taxa from 63 families and 195 genera were recorded during the field survey (Table 4.6). The total number of vascular flora taxa recorded comprised 527 native taxa and 21 introduced taxa (Appendix M). Flora composition varied across the three separate areas, reflecting the size and the variety of landforms present within each area (Table 4.6). The total of 548 includes five taxa that were only recorded outside of the Study Area, located mainly in the ranges to the northwest of Pineapple Hill and Camp Hill (*Apowollastonia hamersleyensis*, *Corchorus incanus* subsp. *lithophilus*, *Lithotoma petraea*, *Pimelea microcephala* subsp. *microcephala*, and *Triodia karijini* (P2)).

The dominant families equate to 50% of the total taxa recorded and comprised Fabaceae (wattle family, 92 taxa), Poaceae (grass family, 87 taxa), Malvaceae (hibiscus family, 62 taxa), and Asteraceae (daisy family, 33 taxa). Of the 63 families recorded, 23 were represented by one taxon, which equates to 4.2% of the total taxa recorded. The dominant genera make up 18.8% of the total taxa recorded and comprised *Acacia* (43 taxa), *Eremophila* (22 taxa), *Senna* (19 taxa), and *Sida* (19 taxa). Of the 195 genera recorded, 102 were represented by only one taxon, which equates to 18.6% of the total taxa recorded. Pineapple Hill and Camp Hill had the highest number of taxa at 422.

Table 4.6: Species diversity in the Study Area

Flora Composition	Pineapple Hill and Camp Hill	Mudlark Well	MAC to Yandi Rail Corridor	Combined
Confirmed vascular flora taxa	422	417	212	548
Families	54	53	37	63
Genera	163	164	98	195
Native taxa	406	406	206	527
Introduced flora taxa	16	11	6	21

Seventy-one taxa observed and/ or collected from the field were difficult to confidently identify to species or infraspecies level, equating to 11.5% and were not included in the counts (Appendix M). This was mainly due to the taxa lacking suitable flowering and fruiting material for confident taxonomic identification. A total of 25 taxa were tentatively identified to species or infraspecies level (e.g., *Cyperus ?squarrosus*). Twenty-two of these have a corresponding specimen that was confidently identified to the same named species/ subspecies – *Acacia sibirica* (*Acacia ?sibirica*). Thirty-nine taxa were only identified down to genus level (e.g., *Acacia* sp. indet.). A further seven taxa superficially resembled a particular species or genus but could potentially be from a different genus (e.g., ?*Bothriochloa ewartiana* and ?*Dodonaea* sp. indet.).

Thirty-three of the unconfirmed specimens are from genera of significant taxa identified by the desktop assessment and the unconfirmed taxa recorded from the Study Area may represent one or more of these significant taxa. All unconfirmed taxa are displayed as *Genus* sp. indet. (e.g., *Acacia ?aptaneura* is *Acacia* sp. indet.), in the spatial data in line with BHP data standards and naming registers (BHP, 2018a).

4.2.3 Significant flora

The desktop assessment identified 91 priority listed taxa as potentially occurring within the Study Area (Section 3.2.1.1; Appendix E). During the field survey, 21 priority listed taxa were recorded – three Priority 2, 15 Priority 3 and three Priority 4 (Figure 4.4). Nineteen of the 21 were previously known to occur within the Study Area. *Eremophila magnifica* subsp. *velutina* (P3) and *Ipomoea racemigera* (P3) had not previously been recorded from the Study Area (Table 3.4). One significant taxon, *Triodia karijini* (P2), was not recorded within any of the three study areas but was found growing on ranges to the northwest of the Pineapple Hill and Camp Hill portion of the Study Area. The 21 priority flora recorded during the field surveys are displayed in Table 4.7 and detailed descriptions are listed in Appendix N. Counts of individuals were estimated when the populations were large. All priority-listed specimens were submitted to the WAH for formal identification by taxonomic experts (Appendix H).

One flora species currently listed as Critically Endangered under the EPBC Act, *Seringia exastia*, was recorded in the Study Area (63 locations). This taxon was formerly listed as Threatened under the BC Act; however, has recently been delisted. This species was initially listed as Threatened as it was thought to have a restricted habitat and has since been determined to be widespread throughout the Eremaean Botanical Province. This report aligns with the current listings as per the WAH (1998 -) and does not report on this species further.

Table 4.7: Significant taxa extent recorded in the Study Area

Taxon	Number of individuals recorded					No. of Point Locations	Number of WAH (1998 -) Records
	Mudlark Well	Mac to Yandi Rail Corridor	Pineapple Hill and Camp Hill	Outside Study Area	Total		
Eremophila sp. West Angelas (S. van Leeuwen 4068) (P2)	21	0	0	51	72	7	8
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)	884	0	0	732	1,616	130	27
Triodia karijini (P2)	0	0	0	440	440	9	14
Aristida jerichoensis var. *subspinulifera* (P3)	2,692	0	412	0	3,104	141	45
Aristida lazaridis (P3)	553	83	1,754	22	2,412	240	25
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109) (P3)	1	0	0	0	1	1	8
Eremophila magnifica subsp. *velutina* (P3)	82	0	0	0	82	30	22
Eremophila naaykensii (P3)	1,075	0	328	443	1,846	205	22
Indigofera gilesii (P3)	1	1	0	0	2	2	39
Ipomoea racemigera (P3)	0	0	177	0	177	13	18
Oxalis sp. Pilbara (M.E. Trudgen 12725) (P3)	3	0	1	1	5	4	14
Pilbara trudgenii (P3)	73	0	0	0	73	7	12
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	467	0	145	0	612	303	75
Rostellularia adscendens var. *latifolia* (P3)	25	10	536	101	672	100	47
Solanum kentrocaule (P3)	27	0	0	0	27	15	21

Taxon	Number of individuals recorded					No. of Point Locations	Number of WAH (1998 -) Records
	Mudlark Well	Mac to Yandi Rail Corridor	Pineapple Hill and Camp Hill	Outside Study Area	Total		
Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	0	0	105	0	105	4	60
Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	1,594	0	2,859	5,116	9,569	208	40
Vittadinia sp. Coondewanna Flats (S. van Leeuwen 4684) (P3)	0	0	1	0	1	1	26
Eremophila magnifica subsp. *magnifica* (P4)	43	0	72	0	115	46	46
Lepidium catapycnon (P4)	56	0	0	0	56	3	39
Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	19	166	1	28	214	70	59

660000 670000 680000 690000 700000

7480000

7470000

Great Northern Hwy

Significant Flora

Priority 2

- *Eremophila* sp. West Angelas (S. van Leeuwen 4068)
- *Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708)
- *Triodia karijini*

Priority 3

- *Aristida jerichoensis* var. *subspinulifera*
- *Aristida lazaridis*
- *Eremophila naaykensii*
- *Ipomoea racemigera*
- *Oxalis* sp. Pilbara (M.E. Trudgen 12725)
- *Rhagodia* sp. Hamersley (M. Trudgen 17794)
- *Rostellularia adscendens* var. *latifolia*
- *Themeda* sp. Hamersley Station (M.E. Trudgen 11431)
- *Triodia* sp. Mt Ella (M.E. Trudgen 12739)
- *Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684)

Priority 4

- *Eremophila magnifica* subsp. *magnifica*
- *Sida* sp. Barlee Range (S. van Leeuwen 1642)

LEGEND

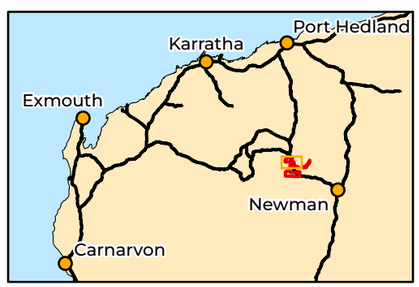
- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:116,000

0 1 2 3 4 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.4a: Significant flora recorded in the Study Area

700000
710000
720000
730000
7480000
7470000

LEGEND

- Study Area
- Approval Boundary
- Rail

Significant Flora

Priority 3

- *Aristida lazaridis*
- *Indigofera gilesii*
- *Rostellularia adscendens* var. *latifolia*

Priority 4

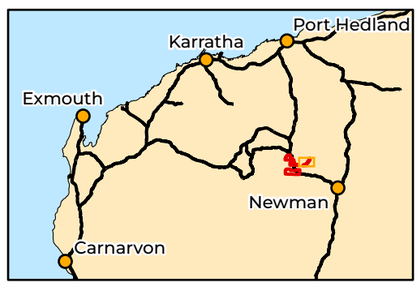
- *Sida* sp. Barlee Range (S. van Leeuwen 1642)

Biologic

Scale 1:86,000

0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.4b: Significant flora recorded in the Study Area

670000 680000 690000

7450000

7440000

Great Northern Hwy

Significant Flora

Priority 2

- *Eremophila* sp. West Angelas (S. van Leeuwen 4068)
- *Hibiscus* ?sp. Gurinbiddy Range (M.E. Trudgen MET 15708)
- *Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708)

Priority 3

- *Aristida jerichoensis* var. *subspinulifera*
- *Aristida lazaridis*
- *Eragrostis* sp. Mt Robinson (S. van Leeuwen 4109)
- *Eremophila magnifica* subsp. *velutina*
- *Eremophila naaykensii*
- *Indigofera gilesii*
- *Oxalis* sp. Pilbara (M.E. Trudgen 12725)
- *Pilbara trudgenii*
- *Rhagodia* sp. Hamersley (M. Trudgen 17794)
- *Rostellularia adscendens* var. *latifolia*
- *Solanum kentrocaule*
- *Triodia* sp. Mt Ella (M.E. Trudgen 12739)

Priority 4

- *Eremophila magnifica* subsp. *magnifica*
- *Lepidium catapycnon*
- *Sida* sp. Barlee Range (S. van Leeuwen 1642)

LEGEND

- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:93,000

0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.4c: Significant flora recorded in the Study Area

4.2.3.1 Flora of other significance

Seven taxa recorded in the Study Area are considered flora of other significance as they represent range extensions or hybrids (Table 4.8).

Table 4.8: Taxa of other significance recorded in the Study Area

Family	Taxon	Significance	Comments
Fabaceae	*Acacia rhodophloia* x *sibirica*	Other	Hybridisation is a common occurrence for many Fabaceae genera. These taxa are not recognised hybrids by WAH, nor are they considered to be locally or regionally significant.
	Senna artemisioides subsp. *helmsii* x *oligophylla*		
	Tephrosia sp. deserts (J.R. Maconochie 1403)	RE	Represents a range extension of approximately 93 km to the northwest. This taxon is distributed across the central deserts of WA and the Northern Territory. The closest known record is located 24 km northeast of Newman. *Tephrosia* sp. deserts (J.R. Maconochie 1403) was recorded twice, from mapping note CPHM-01 and opportunistically from the Pineapple Hill and Camp Hill area.
Oxalidaceae	*Oxalis perennans*	RE	Represents a range extension of approximately 175 km to the west of the closest known WAH record. There is another record within 5 km of the Study Area, however this specimen is held at the Northern Territory herbarium and has not been verified. In WA, *Oxalis perennans* is primarily distributed in the south-west, with scattered records further north, with only one record known from the Pilbara. This taxon was recorded once within quadrat CPH-128 from the Mudlark Well area.
Poaceae	**Bothriochloa pertusa*	RE	Represents a range extension of approximately 131 km to the southeast. **Bothriochloa pertusa* is a weed distributed across Northern Australia and tropical/ coastal QLD, with only two records known for the Pilbara. This taxon was recorded once in quadrat CPH-167 from the Pineapple Hill and Camp Hill area. The specimen collected may represent a new weed for the area or may have been present for many years but under collected.

Family	Taxon	Significance	Comments
	Thyridolepis mitchelliana	RE	Represents a slight range extension of 47 km to the west. *Thyridolepis mitchelliana* is a common grass throughout central Australia, but only one record is known for the Pilbara, close to Rhodes Ridge Airport. *Thyridolepis mitchelliana* was recorded twice, from quadrats CPH-128 in the Mudlark Well area and CPH-175 in the Pineapple Hill and Camp Hill area.
Scrophulariaceae	*Eremophila forrestii* x *latrobei*	Other	Hybridisation is a common occurrence for *Eremophila*. This taxon is not a recognised hybrid by WAH, nor is it considered to be locally or regionally significant.

4.2.4 Introduced flora

Twenty-one confirmed introduced taxa were recorded from the Study Area (Table 4.9; Figure 4.5). None of the 21 introduced flora are listed as WoNS, but one, **Datura leichhardtii*, is listed as a Declared Pest in Western Australia under the BAM Act. This taxon was recorded from one location at quadrat CPH-231 from the southern portion of the Pineapple Hill and Camp Hill area of the Study Area. The closest known location for this taxon is 20 km to the south-southwest of this record (WAH, 1998 -). The ecological impact and invasiveness of **Datura leichhardtii* is unrated (DPIRD, 2022).

The dominant weed species was **Bidens bipinnata* with approximately 19,700 individuals recorded and is distributed throughout the entire Study Area. Cover was generally less than 2% in quadrats, but many occurrences extended outside of quadrat boundaries. The number of individuals recorded in the Study Area was 266 for **Cenchrus ciliaris*, 194 for **Malvastrum americanum* and 159 for **C. setiger*. The number of individuals recorded for **C. ciliaris* and **C. setiger* are an under representation of both taxa in the Study Area. **Cenchrus ciliaris* was a dominant understorey component of vegetation type MA CcCs Aci EcrEv (Table 4.13). The remaining 17 introduced flora taxa were present in lower numbers (from 1 – 61 individuals) and lower cover (≤ 0.1%). Four of the introduced flora, **Cenchrus ciliaris*, **C. setiger,* **Malvastrum americanum* and **Setaria verticillata*, are rated as having a high ecological impact and invasiveness rating (DPIRD, 2022) (Appendix D). Two introduced taxa, **Bothriochloa pertusa* and **Datura leichhardtii,* were not identified in the database searches.

Introduced flora were distributed primarily within drainage line, floodplain, and stony plain vegetation types, while the upper landscapes (i.e., hillcrests, summits, upper hillslopes) had lower introduced flora presence. Introduced flora are known to be more prevalent along drainage lines and floodplains, due to dispersal of seeds by water movement as well as the higher water availability these landforms provide for germination and growth (Hill *et al.*, 2005; van der Meulen & Sindel, 2008). Furthermore, weed spread via cattle is more prevalent on the lower landforms, compared to rocky, breakaway country and large hills and ranges.

Table 4.9: Introduced taxa recorded in the Study Area

Family	Taxon	Extent
Amaranthaceae	**Aerva javanica*	3 individuals from 2 locations
Asteraceae	**Bidens bipinnata*	19,700 individuals from 124 locations
	**Erigeron bonariensis*	3 individuals from 1 location
	**Sigesbeckia orientalis*	20 individuals from 1 location
	**Sonchus oleraceus*	3 individuals from 3 locations
Fabaceae	**Stylosanthes hamata*	1 individual from 1 location
	**Vachellia farnesiana*	1 individual from 1 location
Malvaceae	**Malvastrum americanum*	194 individuals from 20 locations
Poaceae	**Bothriochloa pertusa*	1 individual from 1 location
	**Cenchrus ciliaris*	266 individuals from 10 locations
	**Cenchrus setiger*	159 individuals from 5 locations
	**Chloris barbata*	1 individual from 1 location
	**Chloris virgata*	53 individuals from 15 locations
	**Digitaria ciliaris*	2 individuals from 2 locations
	**Echinochloa colona*	31 individuals from 2 locations
	**Melinis repens*	61 individuals from 2 locations
	**Setaria verticillata*	46 individuals from 3 locations
Portulacaceae	**Portulaca pilosa*	1 individual from 1 location
Solanaceae	**Datura leichhardtii* (DP)	1 individual from 1 location
	**Solanum nigrum*	1 individual from 1 location
Zygophyllaceae	**Tribulus terrestris*	15 individuals from 5 locations

660000 670000 680000 690000 700000

7480000

7470000

Great Northern Hwy

Introduced Flora

- *Bidens bipinnata
- *Bothriochloa pertusa
- *Cenchrus ciliaris
- *Cenchrus setiger
- *Chloris barbata
- *Chloris virgata
- *Datura leichhardtii
- *Echinochloa colona
- *Erigeron bonariensis
- *Malvastrum americanum
- *Melinis repens
- *Portulaca pilosa
- *Setaria verticillata
- *Solanum nigrum
- *Sonchus oleraceus
- *Tribulus terrestris

LEGEND

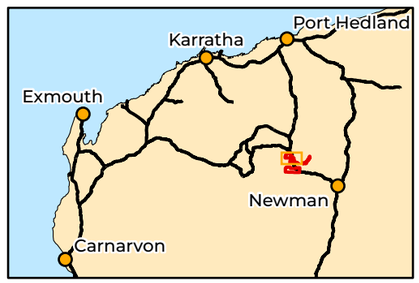
- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:116,000

0 1 2 3 4 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 23/04/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.5a: Introduced flora recorded in the Study Area

700000
710000
720000
730000
7480000
7470000

LEGEND

Study Area
Approval Boundary
Rail

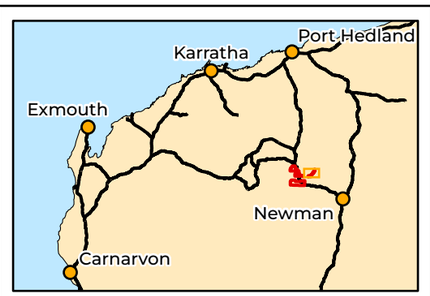
Introduced Flora

*Aerva javanica
*Bidens bipinnata
*Cenchrus ciliaris
*Digitaria ciliaris
*Malvastrum americanum
*Setaria verticillata

Biologic

Scale 1:86,000
0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 23/04/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.5b: Introduced flora recorded in the Study Area

670000
680000
690000
7450000
7440000

Introduced Flora

- *Bidens bipinnata
- *Cenchrus ciliaris
- *Chloris virgata
- *Digitaria ciliaris
- *Malvastrum americanum
- *Melinis repens
- *Sigesbeckia orientalis
- *Sonchus oleraceus
- *Stylosanthes hamata
- *Tribulus terrestris
- *Vachellia farnesiana

Great Northern Hwy

LEGEND

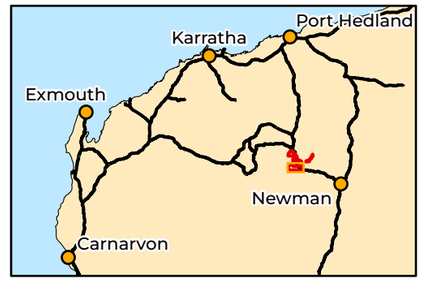
- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:93,000

0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 23/04/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.5c: Introduced flora recorded in the Study Area

4.2.5 Review of assessment of occurrence

Likelihoods for most of the potential significant flora taxa have been downgraded post-survey. Likelihoods were downgraded if species would have been flowering during survey times (March, April, May, June, July and/ or November), were medium-large shrubs/ trees that were easily observable and identifiable without flowering or fruiting material, or where limited or no suitable habitat was present within the Study Area (Table 4.10; Appendix E). Survey effort was focused on the priority areas within the Study Area. While suitable habitats for significant flora were targeted during the field surveys, there is the potential that not all landforms, habitats, and vegetation were traversed (i.e. the entire Study Area was not able to be traversed). Determination of post-survey likelihood took this into account.

Twenty-six significant flora taxa were confirmed to occur within the Study Area pre-survey by the desktop assessment. Nineteen of these taxa were recorded during the current field survey and their likelihoods remain as Confirmed (see Section 4.2.3). The remaining seven were not recorded by the current field survey. These seven species were reviewed for habitat, location and distribution, and it is assumed that the records are accurate and still exist; thus, their likelihoods also remain as Confirmed.

In addition, one taxon assessed as likely to occur (*Eremophila magnifica* subsp. *velutina* (P3)) and one assessed as Possible to occur (*Ipomoea racemigera* (P3)) in the Study Area pre-survey were upgraded to Confirmed as they were recorded during the survey. In total, 28 significant flora are listed as Confirmed to occur within the Study Area.

Of those taxa considered Highly Likely, Likely or Possible to occur pre-survey, 11 remain Possible to occur (for the reasons outlined in Table 4.10). The remaining 53 taxa have post-survey likelihoods of Unlikely (23) or Highly Unlikely (30) (Appendix E).

Table 4.10: Summary of the review of assessment of occurrence

Taxon	Post Survey Likelihood	Reasoning
Pre-Survey Likelihood - Confirmed		
Aristida lazaridis (P3)	Confirmed	Confirmed by survey.
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109) (P3)	Confirmed	Confirmed by survey.
Eremophila sp. West Angelas (S. van Leeuwen 4068) (P2)	Confirmed	Confirmed by survey.
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)	Confirmed	Confirmed by survey.
Oxalis sp. Pilbara (M.E. Trudgen 12725) (P3)	Confirmed	Confirmed by survey.
Triodia karijini (P2)	Confirmed	Confirmed by survey.
Aristida jerichoensis var. *subspinulifera* (P3)	Confirmed	Confirmed by survey.
Dampiera metallorum (P3)	Confirmed	All records occurred outside of the priority areas and so were not visited during the current survey. It is assumed that previous records are accurate and are still confirmed within the Study Area.
Eremophila naaykensii (P3)	Confirmed	Confirmed by survey.
Goodenia lyrata (P3)	Confirmed	All records occurred outside of the priority areas and so were not visited during the current survey. It is assumed that previous records are accurate and are still confirmed within the Study Area.
Goodenia sp. East Pilbara (A.A. Mitchell PRP 727) (P3)	Confirmed	All records occurred outside of the priority areas and so were not visited during the current survey. It is assumed that previous records are accurate and are still confirmed within the Study Area.
Grevillea saxicola (P3)	Confirmed	All records occurred outside of the priority areas and so were not visited during the current survey. It is assumed that previous records are accurate and are still confirmed within the Study Area.
Indigofera gilesii (P3)	Confirmed	Confirmed by survey.
Pilbara trudgenii (P3)	Confirmed	Confirmed by survey.

Taxon	Post Survey Likelihood	Reasoning
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	Confirmed	Confirmed by survey.
Rostellularia adscendens var. *latifolia* (P3)	Confirmed	Confirmed by survey.
Solanum kentrocaule (P3)	Confirmed	Confirmed by survey.
Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	Confirmed	Confirmed by survey.
Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	Confirmed	Confirmed by survey.
Vittadinia sp. Coondewanna Flats (S. van Leeuwen 4684) (P3)	Confirmed	Confirmed by survey.
Xerochrysum boreale (P3)	Confirmed	All records occurred outside of the priority areas and so were not visited during the current survey. It is assumed that previous records are accurate and are still confirmed within the Study Area.
Acacia bromilowiana (P4)	Confirmed	DBCA records occurred outside of priority areas, so were not visited. Two BHP records fell within Biologic walking traverses but there were no individuals recorded in the vicinity of these records during the current survey. It is assumed that other previous records occurring within the Study Area are still present, and so the likelihood remains Confirmed.
Eremophila magnifica subsp. *magnifica* (P4)	Confirmed	Confirmed by survey.
Lepidium catapycnon (P4)	Confirmed	Confirmed by survey.
Ptilotus mollis (P4)	Confirmed	All records occurred outside of the priority areas and so were not visited during the current survey. It is assumed that previous records are accurate and are still confirmed within the Study Area.
Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	Confirmed	Confirmed by survey.
Pre-survey likelihood – Highly Likely		
Dolichocarpa sp. Hamersley Station (A.A. Mitchell PRP 1479) (P3)	Possible	May or may not have been present at time of survey. Taxon is best known from cracking-clays, which were not present in the Study Area.
Olearia mucronata (P3)	Possible	Taxon would not have been flowering but is a distinctively aromatic medium-sized shrub and is easily recognisable.

Taxon	Post Survey Likelihood	Reasoning
Triodia basitricha (P3)	Unlikely	Taxon would have been flowering at time of survey. Forms a dominant part of the vegetation and has distinctive curly leaves and would have been easily noticed.
Pre-Survey Likelihood - Likely		
Eremophila magnifica subsp. *velutina* (P3)	Confirmed	Confirmed by survey.
Arthropodium vanleeuwenii (P2)	Possible	Taxon would not have been flowering but is distinctive (no other *Arthropodium* is known from the Pilbara).
Eremophila pusilliflora (P2)	Possible	Taxon would have been flowering at time of survey and is a conspicuous medium-sized shrub.
Acacia effusa (P3)	Possible	Taxon would have been flowering (or fruiting) during survey and is a medium shrub with distinctive 'minni-ritchi' bark.
Isotropis parviflora (P3)	Possible	Taxon is a small shrub which would have been flowering during Trips 1 and 2. Limited suitable habitat present within the priority areas. Taxon is more prevalent following fires.
Streptoglossa sp. Cracking clays (S. van Leeuwen *et al.* PBS 7353) (P3)	Possible	Taxon is unlikely to have been present at time of survey, but there was a lack of suitable habitat (cracking-clay).
Pre-Survey Likelihood - Possible		
Ipomoea racemigera (P3)	Confirmed	Confirmed by survey.
Rhodanthe ascendens (P1)	Possible	Taxon is a small annual herb which would not have been present at time of survey.
Tetratheca fordiana (P2)	Possible	Limited suitable habitat traversed during the survey. This taxon could potentially occur on ridges and large rock faces that were not surveyed, particularly in the Mudlark Well, and Pineapple Hill and Camp Hill areas.
Euphorbia inappendiculata var. *queenslandica* (P3)	Possible	Taxon is a small and inconspicuous herb and would not have been flowering at time of survey. An indeterminate *Euphorbia* specimen was collected.

Taxon	Post Survey Likelihood	Reasoning
Euphorbia stevenii (P3)	Possible	Taxon is a small and inconspicuous herb, may not have been flowering at time of survey. Suitable habitat was present. An indeterminate *Euphorbia* specimen was collected.
Synostemon hamersleyensis (T)	Unlikely	Taxon would not have been flowering but is a medium-sized shrub and is easily recognisable. Predominantly occurs north of Yandi, near Gudai-Darri.
Thryptomene wittweri (T)	Unlikely	Taxon may have been flowering during Trips 3 and 6 and is a distinctive medium-large shrub. No other *Thryptomene* is known from the Pilbara.
Teucrium pilbaranum (P2)	Unlikely	Taxon may have been flowering during Trip 3 but only limited suitable habitat present (no calcrete or cracking clay, but some clay floodplain).
Acacia daweana (P3)	Unlikely	Taxon would not have been flowering but is a distinctive medium-large shrub and easily recognisable.
Acacia subtiliformis (P3)	Unlikely	Taxon may have been flowering during Trips 4 and 7 and is also easily recognisable without flowers and/ or fruit. Limited suitable habitat present (calcrete).
Amaranthus centralis (P3)	Unlikely	Taxon may have been present and flowering at time of survey, but only marginal habitat was present.
Euphorbia clementii (P3)	Unlikely	Taxon is a small-medium annual herb which is likely to have been present and flowering at time of survey.
Fimbristylis sieberiana (P3)	Unlikely	Taxon would have been flowering and is known from pool edges and sandstone cliffs (not present in Study Area). An indeterminate *Fimbristylis* was collected but this is most likely the common *F. dichotoma*.
Gymnanthera cunninghamii (P3)	Unlikely	Taxon is a large conspicuous shrub and is easily recognisable.
Iotasperma sessilifolium (P3)	Unlikely	Taxon would not have been flowering but there was a lack of suitable habitat in the Study Area.

Taxon	Post Survey Likelihood	Reasoning
Sida sp. Hamersley Range (K. Newbey 10692) (P3)	Unlikely	Taxon may have been flowering during Trip 3. Some suitable habitat was present. Most records are known from further west (>60 km).
Stackhousia clementii (P3)	Unlikely	Taxon likely to have been flowering and is an uncommon genus in the Pilbara.
Stylidium weeliwolli (P3)	Unlikely	Taxon would not have been flowering but there is limited suitable habitat present.
Swainsona thompsoniana (P3)	Unlikely	Taxon may have been present and flowering at time of survey. Limited suitable habitat traversed during the survey. This taxon occurs primarily on cracking-clay which was not present in Study Area.
Cladium procerum (P2)	Highly Unlikely	Taxon is a large perennial sedge known from perennial pools, which were not present in the Study Area.
Gompholobium karijini (P2)	Highly Unlikely	Taxon would not have been flowering but is a medium-sized shrub and is easily recognisable. Mostly restricted to the northern ranges of Karijini National Park.

4.2.6 Vegetation

A total of 77 vegetation types were described from the Study Area, excluding the mapping units Rehabilitation and Cleared. Vegetation types were based on the dendrogram and hierarchical cluster analysis (Appendix L), review of floristic assemblages, review of aerial imagery, and the consolidation and incorporation of previous vegetation mapping for the Study Area (Figure 4.6). The majority of the Study Area (58,566.6 ha / 97.8%) was vegetated, including rehabilitated areas. The remaining area was devoid of vegetation due to mining and mining related disturbances and mapped as Cleared.

The 77 vegetation types were recorded from 10 broad landforms (Table 4.11). The dominant landform was Stony Plain (15,354.4 ha / 25.6%), followed by Footslopes (12,430.7 ha / 20.8%) and Drainage Area/ Floodplain (9,480.7 ha / 15.8%). Drainage Area/ Floodplains supported the highest number of vegetation types (13), with Stony Plains and Hillslopes supporting 12 and 11 vegetation types, respectively (Table 4.11).

The vegetation types were described from 28 broad floristic formations in the Study Area (Table 4.12). Broad floristic formations are based on the dominant growth form and land cover genus for the dominant stratum. The dominant broad floristic formation based on extent across the Study Area was *Triodia* Hummock Grassland (67.3%). The *Triodia* Hummock Grassland broad floristic formation also supported the highest number of vegetation types (33) followed by *Acacia* Low Open Woodland (five vegetation types and 8.5% extent in the Study Area), *Acacia* Low Open Forest (five and 5.5% extent), and *Themeda* Tussock Grassland (five and 2.7% extent).

Two additional mapping categories were delineated from the Study Area: “Cleared” and “Rehabilitation”. They are defined as follows:

- Cleared – cleared areas coinciding with roads and tracks; and
- Rehabilitation – areas undergoing rehabilitation (occurred in proximity to Mining Area C); contained native vegetation but did not resemble any of the native vegetation types.

Table 4.11: Landforms Recorded from the Study Area

Landform	Number of Vegetation Types	Extent within Study Area	
		ha	%
Claypan	1	140.3	0.2
Drainage Area/ Floodplain	13	9,480.7	15.8
Footslope	8	12,430.7	20.8
Gorge Gully^	5	1,572.6	2.6

Landform	Number of Vegetation Types	Extent within Study Area	
		ha	%
Hillcrest/ Upper Hillslope	6	6,889.6	11.5
Hillslope	11	9,054.1	15.1
Major Drainage Line	6	249.4	0.4
Medium Drainage Line	8	2,502.7	4.2
Minor Drainage Line	7	892.2	1.5
Stony Plain	12	15,354.4	25.6
Rehabilitation / Cleared	n/a	1,315.8	2.2
Total	**77**	**59882.3**	**100**

^ The Gorge Gully landform is a combination of both the Gorge and Gully landforms

Table 4.12: Broad Floristic Information from the Study Area

Broad Category	Broad Floristic Formation	Number of Vegetation Types	Extent within Study Area	
			ha	%
Acacia-dominated	*Acacia* Low Open Forest	5	3,277.3	5.5
	Acacia Low Open Woodland	5	5,087.8	8.5
	Acacia Low Woodland	3	1542.8	2.6
	Acacia Mid Open Shrubland	1	153.6	0.3
	Acacia Open Scrub	2	795.4	1.3
	Acacia Shrubland	1	33.3	0.1
Subtotal		**17**	**10,890.2**	**18.2**
Callitris-dominated	*Callitris* Low Open Forest	1	317.8	0.5
	Callitris Low Open Woodland	1	9.6	0.02
Subtotal		**2**	**327.4**	**0.5**
Eucalyptus-Corymbia dominated	*Corymbia* Low Scattered Trees	1	0.6	0.001
	Corymbia Low Woodland	1	432.0	0.7
	Eucalyptus Low Open Forest	1	193.8	0.3
	Eucalyptus Open Forest	1	10.4	0.02
	Eucalyptus Woodland	2	26.2	0.04
	Eucalyptus Woodland to Open Woodland	1	6.5	0.01
Subtotal		**7**	**669.5**	**1.1**
Hummock grassland	*Triodia* Closed Hummock Grassland	1	62.0	0.1
	Triodia Hummock Grassland	33	40,318.9	67.3
	Triodia Mid Open Hummock Grassland	1	757.1	1.3

Broad Category	Broad Floristic Formation	Number of Vegetation Types	Extent within Study Area	
			ha	%
	Triodia Mid to Low Open Hummock Grassland	1	2,201.3	3.7
	Triodia Open Hummock Grassland	1	54.1	0.1
Subtotal		**37**	**43,393.4**	**72.5**
Tussock grassland	*Enneapogon* Tussock Grassland	1	159.8	0.3
	Bothriochloa Mid Tussock Grassland	1	65.1	0.1
	Eulalia Tussock Grassland	1	10.9	0.02
	Themeda Closed Tussock Grassland	1	63.4	0.1
	Themeda Mid Tussock Grassland	2	764.5	1.3
	Themeda Open Tussock Grassland	1	578.0	1.0
	Themeda Tussock Grassland	5	1,630.9	2.7
Subtotal		**12**	**3,272.5**	**5.5**
Cenchrus-dominated	*Cenchrus* Closed Tussock Grassland	1	12.5	0.02
Typha-dominated	*Typha* Tall Thicket	1	1.0	0.002
Cleared and Rehabilitation Mapping Units	N/A	-	1,315.8	2.2
Total		**77**	**59,882.3**	**100**

Table 4.13: Vegetation types in the Study Area

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
Calcrete Plain					
CP TwTrag Ese AbPlApyp Hummock Grassland of *Triodia wiseana* and *Triodia angusta* with Open Mallee of *Eucalyptus socialis* subsp. *eucentrica* and Open Shrubland of *Acacia bivenosa*, *Petalostylis labicheoides* and *Acacia pyrifolia* var. *pyrifolia* on light brown clay loam on calcrete plains.	MAC to Yandi Rail Corridor	28.1 / 0.7	Not sampled in current survey	Overall condition: Good to Excellent	No photograph available.
	Mudlark Well	103.1 / 0.3			
	Pineapple Hill & Camp Hill	9.1 / 0.04			
	Overall	140.3 / 0.2			
Drainage Area/ Floodplain					
FP Aa TtAri Pto Low Open Forest of *Acacia aptaneura* over Tussock Grassland of *Themeda triandra* and *Aristida inaequiglumis* with Low Open Shrubland of *Ptilotus obovatus* on drainage zones.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3) • *Vittadinia* sp. Coondewanna Flats (P3) Overall condition: Very Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	366.6 / 1.6	1 quadrat: CPH-092		
	Overall	366.6 / 0.6			
FP AaAcaoAp ErlnSolPto ArcErdiArj Low Open Woodland of *Acacia aptaneura*, *Acacia catenulata* subsp. *occidentalis* and *Acacia paraneura* over Low Open Shrubland of *Eremophila lanceolata*, *Solanum lasiophyllum* and *Ptilotus obovatus* over Very Open Tussock Grassland of *Aristida contorta*, *Eragrostis dielsii* and *Aristida jerichoensis* subsp. *subspinulifera* on brown clayey loam on floodplains and drainage areas.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Good to Excellent	
	Mudlark Well	1,664.3 / 5.1	1 quadrat: CPH-205 1 relevé: CPH-159 1 vegetation mapping note		
	Pineapple Hill & Camp Hill	1,068.1 / 4.6	4 quadrats: CPH-170, CPH-172, CPH-180, CPH-190		
	Overall	2,732.4 / 4.6			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
FP AaApr Ptoo Tt Low Open Woodland of *Acacia aptaneura* and *Acacia pruinocarpa* over Low Open Shrubland of *Ptilotus obovatus* var. *obovatus* over Tussock Grassland of *Themeda triandra* on floodplains and drainage areas.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Very Good	
	Mudlark Well	426.8 / 1.3	3 quadrats: CPH-118, CPH-119, CPH-121 1 vegetation mapping note		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	426.8 / 0.7			
FP AaApr Tm(Tp) ArcTtChf Low Open Woodland of *Acacia aptaneura* and *Acacia pruinocarpa* over Sparse Hummock Grassland of *Triodia melvillei* (*Triodia pungens*) over Tussock Grassland of *Aristida contorta*, *Themeda triandra*, *Chrysopogon fallax* on red brown loam on floodplains and drainage areas.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) Overall condition: Very Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	819.5 / 3.6	10 quadrats: CPH-169, CPH-171, CPH-173, CPH-174, CPH-175, CPH-176, CPH-178, CPH-179, CPH-199, CPH-232 2 relevés: CVR-01, EMR-01		
	Overall	819.5 / 1.4			
FP AaApApt TtChfErb Low Open Forest of *Acacia aptaneura*, *Acacia paraneura* and *Acacia pteraneura* over Open Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Eriachne benthamii* on red brown clay loam on floodplains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Very Good	
	Mudlark Well	435.7 / 1.3	2 quadrats: CPH-128, CPH-131		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	435.7 / 0.7			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
FP AaApr PtoErln ArcArobTt Low Woodland of *Acacia aptaneura* and *Acacia pruinocarpa* over Low Shrubland of *Ptilotus obovatus* and *Eremophila lanceolata* over Open Tussock Grassland of *Aristida contorta*, *Aristida obscura* and *Themeda triandra* on plains.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	768.6 / 3.3	Not sampled in current survey		
	Overall	768.6 / 1.3			
FP AaApt SeaaPtooSisl Arc Low Open Woodland of *Acacia aptaneura*, *Acacia pteraneura* over Low Open Shrubland of *Senna artemisioides* subsp. x *artemisioides*, *Ptilotus obovatus* var. *obovatus*, *Sida* sp. L (A.M. Ashby 4202) over Open Tussock Grassland of *Aristida contorta* on floodplains and hardpan plains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Very Good to Excellent	
	Mudlark Well	483.3 / 1.5	7 quadrats: CPH-124, CPH-127, CPH-129, CPH-133, CPH-138, CPH-143, CPH-156 4 relevés: CPH-125, CPH-134, CPH-141, CPHR-125		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	483.3 / 0.8			
FP AaCoas Mav Tm Low Open Forest of *Acacia aptaneura* and *Corymbia aspera* over Low Open Shrubland of *Maireana villosa* over Open Hummock Grassland of *Triodia melvillei* on red brown cracking clays and alluvial loams on floodplains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Excellent	
	Mudlark Well	459.3 / 1.4	2 quadrats: CPH-140, CPH-142		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	459.3 / 0.8			
FP AcaoAaEx Erff Tp Low Woodland of *Acacia catenulata* subsp. *occidentalis*, *Acacia aptaneura* and *Eucalyptus xerothermica* over Open Shrubland of *Eremophila forrestii* subsp. *forrestii* over Open Hummock Grassland of *Triodia pungens* on red sandy loam on floodplains.	MAC to Yandi Rail Corridor	3.6 / 0.1	Not sampled in current survey	Overall condition: Poor	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	3.6 / 0.01			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
FP Thhs Coas PtoSaa Closed Tussock Grassland of *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) with Low Open Woodland of *Corymbia aspera* over Low Open Shrubland of *Ptilotus obovatus* and *Salsola australis* on orange light clay on floodplains.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Very Good	No photograph available.
	Mudlark Well	63.4 / 0.2	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	63.4 / 0.1			
FP TpTm AaApaAcao Hummock Grassland of *Triodia pungens* and *Triodia melvillei* with Low Open Woodland of *Acacia aptaneura*, *Acacia pachyacra* and *Acacia catenulata* subsp. *occidentalis* on floodplains and hardpan plains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Excellent	
	Mudlark Well	1,894.6 / 5.8	7 quadrats: CPH-122, CPH-123, CPH-126, CPH-151, CPH-155, CPH-157, CPH-158		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	1,894.6 / 3.2			
FP TtArcArob AmacAinApr PtooAbff Mid Tussock Grassland of *Themeda triandra*, *Aristida contorta* and *Aristida obscura* with Low Open Woodland of *Acacia macraneura*, *Acacia incurvaneura* and *Acacia pruinocarpa* over Low Shrubs of *Ptilotus obovatus* subsp. *obovatus* and *Abutilon fraseri* subsp. *fraseri* on hardpan plains and floodplains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3) Overall condition: Very Good	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	639.8 / 2.8	2 quadrats: CPH-059, CPH-066		
	Overall	639.8 / 1.1			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
FP TtEua ExAa AprAtpErlo Tussock Grassland of *Themeda triandra* and *Eulalia aurea* with Low Woodland of *Eucalyptus xerothermica* and *Acacia aptaneura* over Open Shrubland of *Acacia pruinocarpa*, *Acacia tumida* var. *pilbarensis* and *Eremophila longifolia* on red brown clay loam on unincised drainage channels and floodplains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) Overall condition: Very Good	
	Mudlark Well	387.1 / 1.2	1 quadrat: CPH-153		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	387.1 / 0.6			
Footslopes					
FS Tp EgEll Aat Hummock Grassland of *Triodia pungens* with Scattered Trees of *Eucalyptus gamophylla* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia atkinsiana* on brown silty loam on footslopes and hillslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	253.1 / 1.1	3 quadrats: CPH-049, CPH-057, CPH-193		
	Overall	253.1 / 0.4			
FS Tp(Tv) Eg AeAd Mid to Low Hummock Grassland of *Triodia pungens* (+/- *Triodia vanleeuwenii*) with Low Mallee Trees of *Eucalyptus gamophylla* over Tall Shrubs of *Acacia elachantha* and *Acacia dictyophleba* over Low Shrubs of *Seringia exastia* on footslopes and hillslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Very Good to Excellent	
	Mudlark Well	1,155.1 / 3.5	1 quadrat: CPH-203		
	Pineapple Hill & Camp Hill	1,046.2 / 4.5	5 quadrats: CPH-051, CPH-076, CPH-079, CPH-094, CPH-096		
	Overall	2,201.3 / 3.7			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
FS Tv CddHc AancAiGrwh Hummock Grassland of *Triodia vanleeuwenii* with Low Open Woodland of *Corymbia deserticola* subsp. *deserticola* and *Hakea chordophylla* over Open Shrubland of *Acacia ancistrocarpa*, *Acacia inaequilatera* and *Grevillea wickhamii* subsp. *hispidula* on footslopes and hillslopes.	MAC to Yandi Rail Corridor	462.7 / 10.9	1 vegetation mapping note	Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Eremophila magnifica* subsp. *velutina* (P3) • *Eremophila naaykensii* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Degraded to Excellent	
	Mudlark Well	1,616.4 / 5	2 quadrats: CPH-144, CPH-146 1 vegetation mapping note		
	Pineapple Hill & Camp Hill	1,765.4 / 7.7	6 quadrats: CPH-046, CPH-053, CPH-056, CPH-166, CPH-192, CPH-229 1 vegetation mapping note		
	Overall	3,844.5 / 6.4			
FS TvTp CdEll AatAtenAanc Hummock Grassland of *Triodia vanleeuwenii* and *Triodia pungens* with Low Open Woodland of *Corymbia deserticola* and *Eucalyptus leucophloia* subsp. *leucophloia* over High Open Shrubland of *Acacia atkinsiana*, *Acacia tenuissima* and *Acacia ancistrocarpa* on footslopes and hillslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	1,781.1 / 7.7	5 quadrats: CPH-060, CPH-063, CPH-075, CPH-081, CPH-501 1 vegetation mapping note		
	Overall	1,781.1 / 3			
FS Tv EllCdd AbSolAten Hummock Grassland of *Triodia vanleeuwenii* with Scattered Trees of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia deserticola* subsp. *deserticola* over Open Shrubland of *Acacia bivenosa*, *Solanum lasiophyllum* and *Acacia tenuissima* on footslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Eremophila naaykensii* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Lepidium catapycnon* (P4) Overall condition: Excellent	
	Mudlark Well	3,779 / 11.6	12 quadrats: CPH-101, CPH-104, CPH-111, CPH-113, CPH-115, CPH-116, CPH-181, CPH-182, CPH-184, CPH-185, CPH-186, CPH-210 1 relevé: CPHR-109 1 vegetation mapping note		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	3,779 / 6.3			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
FS TvTp Eg Ell Hummock Grassland of *Triodia vanleeuwenii* and *Triodia pungens* with Open Mallee of *Eucalyptus gamophylla* and Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* on footslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	548 / 2.4	3 quadrats: CPH-054, CPH-069, CPH-095		
	Overall	548 / 0.9			
FS TvTpTw Ell AbApaAanc Hummock Grassland of *Triodia vanleeuwenii*, *Triodia pungens* and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and Open Shrubland *of Acacia bivenosa*, *Acacia pachyacra* and *Acacia ancistrocarpa* on footslopes.	MAC to Yandi Rail Corridor	13.7 / 0.3	Not sampled in current survey	Overall condition: Poor and Very Good	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	13.7 / 0.02			
FS Tw Ell Hummock Grassland of *Triodia wiseana* with Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* on red silty clay on hillslopes and footslopes.	MAC to Yandi Rail Corridor	9.9 / 0.2	Not sampled in current survey	Overall condition: Very Good	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	9.9 / 0.02			
Hillslopes					
HS EnlCya ErfrAte InmDiau Tussock Grassland of *Enneapogon lindleyanus* and *Cymbopogon ambiguus* with Shrubland of *Eremophila fraseri* and *Acacia tetragonophylla* over Low Shrubland of *Indigofera monophylla* and *Dipteracanthus australasicus* on brown sandy clay loam on mudstone outcrops.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Very Good	No photograph available.
	Mudlark Well	159.8 / 0.5	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	159.8 / 0.3			
HS Tbr Ell Er Hummock Grassland of *Triodia brizoides* with Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Mallee of *Eucalyptus repullulans* on red brown sandy loam on hillslopes and breakaway scree slopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	27.5 / 0.1	Not sampled in current survey		
	Pineapple Hill & Camp Hill	3.7 / 0.02			
	Overall	31.3 / 0.1			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
HS TbrTw Ell Hummock Grassland of *Triodia brizoides* and/or *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* on brown sandy loam on steep hillslopes.	MAC to Yandi Rail Corridor	106.1 / 2.5	Not sampled in current survey	Significant flora present: • *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2) • *Eremophila naaykensii* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) Overall condition: Good to Excellent	
	Mudlark Well	2,369.8 / 7.3	2 relevés: CPH-206, CPHR-103 1 vegetation mapping note		
	Pineapple Hill & Camp Hill	188.9 / 0.8	2 relevés: CPH-194, CPH-198		
	Overall	2,664.8 / 4.5			
HS TbrTw Ell CyaThmbErmu Hummock Grassland of *Triodia brizoides* and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and Very Open Tussock Grassland of *Cymbopogon ambiguus*, *Themeda* sp. Mt Barricade (M.E. Trudgen 2471) and *Eriachne mucronata* on sandy loam on hillslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	148.3 / 0.6	Not sampled in current survey		
	Overall	148.3 / 0.2			
HS Tv(Tw) Ell AbAancSegg Hummock Grassland of *Triodia vanleeuwenii* (*Triodia wiseana*) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia bivenosa*, *Acacia ancistrocarpa* and *Senna glutinosa* subsp. *glutinosa* with Scattered Low Trees of *Hakea lorea* subsp. *lorea* on hillslopes.	MAC to Yandi Rail Corridor	274.6 / 6.5	8 quadrats: CPH-002, CPH-010, CPH-015, CPH-017, CPH-018, CPH-023, CPH-025, CPH-026 1 vegetation mapping note	Overall condition: Poor, Very Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	274.6 / 0.5			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
HS Tv(Tw) EllCdd AhiAaa Hummock Grassland of *Triodia vanleeuwenii* (+/- *Triodia wiseana*) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia deserticola* subsp. *deserticola* over Low Open Shrubland of *Acacia hilliana* and *Acacia adoxa* var. *adoxa* on hillslopes.	MAC to Yandi Rail Corridor	838 / 19.7	10 quadrats: CPH-003, CPH-007, CPH-009, CPH-013, CPH-019, CPH-020, CPH-027, CPH-029, CPH-038, CPH-039 2 vegetation mapping notes	Significant flora present: • *Rostellularia adscendens* var. *latifolia* (P3) Overall condition: Completely Degraded, Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	838 / 1.4			
HS TvTwTp EllCh AhiAaa Hummock Grassland of *Triodia vanleeuwenii*, *Triodia wiseana* and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana* and *Acacia adoxa* var. *adoxa* on hillslopes.	MAC to Yandi Rail Corridor	237.7 / 5.6	Not sampled in current survey	Significant flora present: • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Good to Excellent	
	Mudlark Well	670.2 / 2.1	1 quadrat: CPH-220		
	Pineapple Hill & Camp Hill	53.2 / 0.2	Not sampled in current survey		
	Overall	961.2 / 1.6			
HS Tw(Tv) EllCh AaaAhiAm Hummock Grassland of *Triodia wiseana* (*Triodia vanleeuwenii*) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* and Low Open Shrubland of *Acacia adoxa* var. *adoxa*, *Acacia hilliana* and *Acacia monticola* on ironstone hills.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Eremophila naaykensii* (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) • *Eremophila magnifica subsp. magnifica* (P4) Overall condition: Very Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	2,582.1 / 11.2	11 quadrats: CPH-047, CPH-070, CPH-077, CPH-082, CPH-084, CPH-085, CPH-087, CPH-089, CPH-090, CPH-093, CPH-099 2 vegetation mapping notes		
	Overall	2,582.1 / 4.3			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
HS TwTbr Ai Inr Hummock Grassland of *Triodia wiseana* and *Triodia brizoides* with High Open Shrubland of *Acacia inaequilatera* over Low Open Shrubland of *Indigofera rugosa* on dolerite hills.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Rostellularia adscendens* var. *latifolia* (P3) Overall condition: Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	648.1 / 2.8	2 quadrats: CPH-086, CPH-088		
	Overall	648.1 / 1.1			
HS TwTpTbr Ell Ep Hummock Grassland of *Triodia wiseana*, *Triodia pungens* and *Triodia brizoides* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Mallee of *Eucalyptus pilbarensis* on red brown loam on steep hillslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	347.2 / 1.1	Not sampled in current survey		
	Pineapple Hill & Camp Hill	37.9 / 0.2			
	Overall	385.1 / 0.6			
HS TwTpTv Ell AprAaAanc Hummock Grassland of *Triodia wiseana*, *Triodia pungens* and *Triodia vanleeuwenii* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia pruinocarpa*, *Acacia aptaneura* and *Acacia ancistrocarpa* on hillslopes.	MAC to Yandi Rail Corridor	30.2 / 0.7	Not sampled in current survey	Overall condition: Very Good to Excellent	No photograph available.
	Mudlark Well	330.6 / 1			
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	360.8 / 0.6			
Hillcrest/ Upper Hillslope					
HC Tp(TvTw) Ell Segg Hummock Grassland of *Triodia pungens* (*Triodia vanleeuwenii*, *Triodia wiseana*) with Low Isolated Trees of *Eucalyptus leucophloia* subsp. *leucophloia* over Mid to Low Shrubs of *Senna glutinosa* subsp. *glutinosa* on hillcrests and upper hillslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Eragrostis* sp. Mt Robinson (S. van Leeuwen 4109) (P3) • *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2) • *Eremophila naaykensii* (P3) • *Indigofera gilesii* (P3) • *Pilbara trudgenii* (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Solanum kentrocaule* (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) Overall condition: Excellent	
	Mudlark Well	104.2 / 0.3	3 quadrats: CPH-107, CPH-150, CPH-152 1 relevé: CPH-108		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	104.2 / 0.2			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
HC TpTw Ell NehrOls Closed Hummock Grassland of *Triodia pungens* and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Scattered Shrubs of *Newcastelia* sp. Hamersley Range (S. van Leeuwen 4264) and *Olearia stuartii* on brown silty loam on hillcrests and upper hillslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	62 / 0.2	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	62 / 0.1			
HC Tw Ah EkkEgCh Hummock Grassland of *Triodia wiseana* with Shrubland of *Acacia hamersleyensis* and Open Mallee of *Eucalyptus kingsmillii* subsp. *kingsmillii*, *Eucalyptus gamophylla* and *Corymbia hamersleyana* (mallee form) on red brown loam and silty loam on hill crests.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Eremophila naaykensii* (P3) • *Solanum kentrocaule* (P3) • *Eremophila magnifica* subsp. *magnifica* (P4) Overall condition: Excellent	
	Mudlark Well	1,572 / 4.8	2 quadrats: CPH-226, CPH-228		
	Pineapple Hill & Camp Hill	70.9 / 0.3	Not sampled in current survey		
	Overall	1,642.9 / 2.7			
HC Tw AiAb InrSeao Hummock Grassland of *Triodia wiseana* with High Open Shrubland of *Acacia inaequilatera* and *Acacia bivenosa* over Low Open Shrubland of *Indigofera rugosa* and *Senna artemisioides* subsp. *oligophylla* on red silty loam on dolerite hill crests.	MAC to Yandi Rail Corridor	226.2 / 5.3	3 quadrats: CPH-006, CPH-032, CPH-040 3 vegetation mapping notes	Significant flora present: • *Aristida lazaridis* (P3) Overall condition: Very Good to Excellent	
	Mudlark Well	442.8 / 1.4	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	669 / 1.1			
HC TwTbrTp EllCh AmaGrwhAb Hummock Grassland of *Triodia wiseana*, *Triodia brizoides* and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over High Open Shrubland of *Acacia maitlandii*, *Grevillea wickhamii* subsp. *hispidula* and *Acacia bivenosa* on hill crests and upper hillslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	703 / 2.2	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	703 / 1.2			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
HC TwTvTp EllCh Ah Hummock Grassland of *Triodia wiseana*, *Triodia vanleeuwenii* and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Open Shrubland of *Acacia hamersleyensis* on red silty loam on hillcrests and upper hillslopes.	MAC to Yandi Rail Corridor	426.4 / 10	Not sampled in current survey	Significant flora present: • *Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2) • *Eremophila magnifica* subsp. *velutina* (P3) • *Eremophila naaykensii* (P3) • *Indigofera gilesii* (P3) • *Solanum kentrocaule* (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) • *Lepidium catapycnon* (P4) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) Overall condition: Good to Excellent	
	Mudlark Well	1,879.4 / 5.8	4 quadrats: CPH-212, CPH-216, CPH-217, CPH-219 4 relevés: CPH-200, CPH-201, CPH-224, CPHR-106 1 vegetation mapping note		
	Pineapple Hill & Camp Hill	1,402.6 / 6.1	4 quadrats: CPH-189, CPH-191, CPH-195, CPH-196 1 vegetation mapping note		
	Overall	3,708.4 / 6.2			
Gorge Gully					
GG AaAcaoEll DopErtiErjp TpTw Low Woodland of *Acacia aptaneura*, *Acacia catenulata* subsp. *occidentalis* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Dodonaea pachyneura*, *Eremophila tietkensii* and *Eremophila jucunda* subsp. *pulcherrima* over Open Hummock Grassland of *Triodia pungens* and *Triodia wiseana* in gorges and gullies.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Eremophila* sp. West Angelas (S. van Leeuwen 4068) (P2) • *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2) • *Pilbara trudgenii* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Solanum kentrocaule* (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) Overall condition: Very Good to Excellent	
	Mudlark Well	709.7 / 2.2	2 quadrats: CPH-149, CPH-221 2 relevés: CPH-105, CPHR-110		
	Pineapple Hill & Camp Hill	60.8 / 0.3	Not sampled in current survey		
	Overall	770.6 / 1.3			
GG CcolCfEll ErmuThmbCya Low Open Forest of *Callitris columellaris*, *Corymbia ferriticola* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Tussock Grassland of *Eriachne mucronata*, *Themeda* sp. Mt Barricade (M.E. Trudgen 2471) and *Cymbopogon ambiguus* and Very Open Hummock Grassland in gorges and gullies.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2) • *Oxalis* sp. Pilbara (M.E. Trudgen 12725) (P3) • *Eremophila naaykensii* (P3) • *Pilbara trudgenii* (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Solanum kentrocaule* (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) Overall condition: Excellent	No photograph available.
	Mudlark Well	317.8 / 1	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	317.8 / 0.5			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
GG CcollCfFib ErhrDopDovm CyaTtErmu Low Open Woodland of *Callitris columellaris*, *Corymbia ferriticola* and *Ficus brachypoda* over High Open Shrubland of *Eremophila* sp. Hamersley Range (K. Walker KW136), *Dodonaea pachyneura* and *Dodonaea viscosa* subsp. *mucronata* over Very Open Tussock Grassland of *Cymbopogon ambiguus*, *Themeda triandra* and *Eriachne mucronata* in gorges and gullies.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Rostellularia adscendens* var. *latifolia* (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) Overall condition: Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	9.6 / 0.04	1 quadrat: CPH-071		
	Overall	9.6 / 0.02			
GG CfEllFib AhDovmAsha CyaErmuThmb Low Woodland of *Corymbia ferriticola*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Ficus brachypoda* over Open Shrubland of *Acacia hamersleyensis*, *Dodonaea viscosa* subsp. *mucronata* and *Astrotricha hamptonii* over Open Tussock Grassland of *Cymbopogon ambiguus, Eriachne mucronata* and *Themeda* sp. Mt Barricade (M.E. Trudgen 2471) in gorges and gullies.	MAC to Yandi Rail Corridor	6.2 / 0.1	Not sampled in current survey	Significant flora present: • *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2) • *Eremophila naaykensii* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Solanum kentrocaule* (P3) • *Eremophila magnifica* subsp. *magnifica* (P4) Overall condition: Excellent	
	Mudlark Well	417.1 / 1.3	1 quadrat: CPH-204		
	Pineapple Hill & Camp Hill	8.7 / 0.04	Not sampled in current survey		
	Overall	432 / 0.7			
GG TtErmuThmb EllChCf AtpGoroPl Tussock Grassland of *Themeda triandra*, *Eriachne mucronata* and *Themeda* sp. Mt Barricade (M.E. Trudgen 2471) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* and *Corymbia ferriticola* over High Shrubland of *Acacia tumida* var. *pilbarensis, Gossypium robinsonii* and *Petalostylis labicheoides* in gorges and gullies.	MAC to Yandi Rail Corridor	32.6 / 0.8	1 relevé: CPHR-003	Significant flora present: • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) Overall condition: Very Good to Excellent	
	Mudlark Well	10 / 0.03	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	42.6 / 0.1			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
Major Drainage Line					
MA CcCs Aci EcrEv Closed Tussock Grassland of **Cenchrus ciliaris* and **Cenchrus setiger* with Low Open Forest of *Acacia citrinoviridis* and Scattered Low Trees of *Eucalyptus camaldulensis* subsp. *refulgens* and *Eucalyptus victrix* on banks and floodplains of major drainage line with brown sandy loam.	MAC to Yandi Rail Corridor	12.5 / 0.3	Not sampled in current survey	Overall condition: Poor	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	12.5 / 0.02			
MA EcrEv AciApypMg CcEuaTt Woodland of *Eucalyptus camaldulensis* subsp. *refulgens* and *Eucalyptus victrix* over High Open Shrubland of *Acacia citrinoviridis*, *Acacia pyrifolia* var. *pyrifolia* and *Melaleuca glomerata* over Tussock Grassland of **Cenchrus ciliaris*, *Eulalia aurea* and *Themeda triandra* along major drainage lines.	MAC to Yandi Rail Corridor	0.9 / 0.02	Not sampled in current survey	Overall condition: Good	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	0.9 / 0.002			
MA EcrEv AcpAtheEv TpTlo Woodland to Open Woodland of *Eucalyptus camaldulensis* subsp. *refulgens* and *Eucalyptus victrix* over Low Woodland of *Acacia coriacea* subsp. *pendens*, *Atalaya hemiglauca* and *Eucalyptus victrix* over Open Hummock Grassland of *Triodia pungens* and *Triodia longiceps* on brown sand along major drainage lines.	MAC to Yandi Rail Corridor	6.5 / 0.2	Not sampled in current survey	Overall condition: Good	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	6.5 / 0.01			
MA EcrEvEx ApypAtpGoro TtEuaCyp Low Open Forest of *Eucalyptus camaldulensis* subsp. *refulgens*, *Eucalyptus victrix* and *Eucalyptus xerothermica* over High Shrubland of *Acacia pyrifolia* var. *pyrifolia*, *Acacia tumida* var. *pilbarensis* and *Gossypium robinsonii* over Open Tussock Grassland of *Themeda triandra, Eulalia aurea* and *Cymbopogon procerus* along major drainage lines.	MAC to Yandi Rail Corridor	12.4 / 0.3	Not sampled in current survey	Significant flora present: • *Aristida lazaridis* (P3) Overall condition: Good to Excellent	
	Mudlark Well	181.5 / 0.6	1 quadrat: CPH-211		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	193.8 / 0.3			
MA EcrEvMa AcpAamAthe TydCyv Open Forest of *Eucalyptus camaldulensis* var. *refulgens*, *Eucalyptus victrix* and *Melaleuca argentea* over Low Open Forest of *Acacia coriacea* subsp. *pendens*, *Acacia ampliceps* and *Atalaya hemiglauca* over Open Sedgeland of *Typha domingensis* and *Cyperus vaginatus* along major drainage lines.	MAC to Yandi Rail Corridor	10.4 / 0.2	Not sampled	Overall condition: Good	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	10.4 / 0.02			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
MA EvAciEcr TercCocrApyp CcEuaTt Woodland of *Eucalyptus victrix*, *Acacia citrinoviridis* and *Eucalyptus camaldulensis* subsp. *refulgens* over Low Open Shrubland of *Tephrosia rosea* var. *clementii*, *Corchorus crozophorifolius* and *Acacia pyrifolia* var. *pyrifolia* over Very Open Tussock Grassland of **Cenchrus ciliaris*, *Eulalia aurea* and *Themeda triandra* along major drainage lines.	MAC to Yandi Rail Corridor	25.2 / 0.6	Not sampled in current survey	Overall condition: Very Good to Excellent	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	25.2 / 0.04			
Medium Drainage Line					
ME AtpAmAma TtEuaTp ChEllEx Mid Open Shrubland of *Acacia tumida* var. *pilbarensis*, *Acacia monticola* and *Acacia maitlandii* over Open Tussock Grassland of *Themeda triandra* and *Eulalia aurea* with Hummock Grasses of *Triodia pungens* with Low *Corymbia hamersleyana*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Eucalyptus xerothermica* along medium drainage lines.	MAC to Yandi Rail Corridor	153.6 / 3.6	4 quadrats: CPH-011, CPH-024, CPH-028, CPH-035 2 relevés: CPHR-001, CPHR-002 1 vegetation mapping note	Overall condition: Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	153.6 / 0.3			
ME BoeTtChf AaEv Sal Mid Tussock Grassland of *Bothriochloa ewartiana*, *Themeda triandra* and *Chrysopogon fallax* with Low Woodland of *Acacia aptaneura* and *Eucalyptus victrix* over Scattered Tall Shrubs of *Santalum lanceolatum* on brown clayey sand on medium drainage lines.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Oxalis* sp. Pilbara (M.E. Trudgen 12725) (P3) • *Rostellularia adscendens* var. *latifolia* (P3) Overall condition: Very Good	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	65.1 / 0.3	1 quadrat: CPH-231 1 vegetation mapping note		
	Overall	65.1 / 0.1			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
ME EuaTtErt EvEx GoroAeAma Tussock Grassland of *Eulalia aurea*, *Themeda triandra* and *Eriachne tenuiculmis* with Low Open Woodland of *Eucalyptus victrix* and *Eucalyptus xerothermica* over High Open Shrubland of *Gossypium robinsonii*, *Acacia elachantha* and *Acacia maitlandii* in medium drainage lines.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	10.9 / 0.05	Not sampled in current survey		
	Overall	10.9 / 0.02			
ME Tp(Tv) AaAprEx Pl Hummock Grassland of *Triodia pungens* (+/- *Triodia vanleeuwenii*) with Low Woodland of *Acacia aptaneura*, *Acacia pruinocarpa* and *Eucalyptus xerothermica* over Tall Open Shrubland of *Petalostylis labicheoides* along medium drainage lines.	MAC to Yandi Rail Corridor	161.8 / 3.8	4 quadrats: CPH-022, CPH-030, CPH-031, CPH-033 1 vegetation mapping note	Overall condition: Good to Very Good	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	161.8 / 0.3			
ME TpTlo ExAciCh PlApypGoro Hummock Grassland of *Triodia pungens* and *Triodia longiceps* with Low Woodland of *Eucalyptus xerothermica*, *Acacia citrinoviridis* and *Corymbia hamersleyana* over High Shrubland of *Petalostylis labicheoides*, *Acacia pyrifolia* var. *pyrifolia* and *Gossypium robinsonii* along major drainage lines.	MAC to Yandi Rail Corridor	36.9 / 0.9	Not sampled in current survey	Overall condition: Good to Excellent	No photograph available.
	Mudlark Well	302.8 / 0.9			
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	339.7 / 0.6			
ME TtAriCya ChEll AmPlAnl Open Tussock Grassland of *Themeda triandra*, *Aristida inaequiglumis* and *Cymbopogon ambiguus* with Low Open Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia monticola*, *Petalostylis labicheoides* and *Androcalva luteiflora* along medium drainage lines.	MAC to Yandi Rail Corridor	5.7 / 0.1	Not sampled in current survey	Overall condition: Very Good to Excellent	
	Mudlark Well	396.2 / 1.2	1 relevé: CPH-112		
	Pineapple Hill & Camp Hill	176.1 / 0.8	Not sampled in current survey		
	Overall	578 / 1			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
ME TtChfEua ExEvCh PlApaApyp Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Eulalia aurea* with Low Open Woodland of *Eucalyptus xerothermica*, *Eucalyptus victrix* and *Corymbia hamersleyana* over Shrubland of *Petalostylis labicheoides*, *Acacia pachyacra* and *Acacia pyrifolia* var. *pyrifolia* along medium drainage lines.	MAC to Yandi Rail Corridor	51 / 1.2	2 quadrats: CPH-001, CPH-021	Significant flora present: • *Aristida lazaridis* (P3) Overall condition: Very Good	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	51 / 0.1			
ME TtEuaCya ExCh AnlApyErlo Tussock Grassland of *Themeda triandra*, *Eulalia aurea* and *Cymbopogon ambiguus* with Low Open Woodland of *Eucalyptus xerothermica* and *Corymbia hamersleyana* over High Open Shrubland of *Androcalva luteiflora*, *Acacia pyrifolia* and *Eremophila longifolia* in medium drainage lines.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Ipomoea racemigera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) Overall condition: Very Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	1,142.4 / 5	6 quadrats: CPH-058, CPH-062, CPH-091, CPH-097, CPH-098, CPH-100 1 vegetation mapping note		
	Overall	1,142.4 / 1.9			
Minor Drainage Line					
MI AbAdAma Tp TtPamuEua Shrubland of *Acacia bivenosa*, *Acacia dictyophleba* and *Acacia maitlandii* over Open Hummock Grassland of *Triodia pungens* over Open Tussock Grassland of *Themeda triandra*, *Paraneurachne muelleri* and *Eulalia aurea* on brown sandy loam on minor drainage lines.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	33.3 / 0.1	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	33.3 / 0.1			
MI AmAancAe TpTw TtPamuEua Open Scrub of *Acacia monticola*, *Acacia ancistrocarpa* and *Acacia elachantha* over Open Hummock Grassland of *Triodia pungens* and *Triodia wiseana* over Open Tussock Grassland of *Themeda triandra*, *Paraneurachne muelleri* and *Eulalia aurea* in minor drainage lines.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	126.6 / 0.5	Not sampled in current survey		
	Overall	126.6 / 0.2			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
MI AtpPlAm TpTv ChEll Open Scrub of *Acacia tumida* var. *pilbarensis*, *Petalostylis labicheoides* and *Acacia monticola* over Open Hummock Grassland of *Triodia pungens* and *Triodia vanleeuwenii* with Low Open Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* in minor drainage lines.	MAC to Yandi Rail Corridor	155.6 / 3.7	6 quadrats: CPH-008, CPH-012, CPH-014, CPH-016, CPH-034, CPH-036	Significant flora present: • *Aristida lazaridis* (P3) • *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2) Overall condition: Good to Excellent	
	Mudlark Well	502.2 / 1.5	3 quadrats: CPH-183, CPH-187, CPH-188 2 relevés: CPHR-102, CPHR-114		
	Pineapple Hill & Camp Hill	11 / 0	Not sampled in current survey		
	Overall	668.8 / 1.1			
MI AtpApypPl AlTrfMa CcTtCam Low Scattered Trees of *Corymbia hamersleyana* and *Eucalyptus xerothermica*, with occasional Mid Scattered Trees of *Eucalyptus victrix* over Tall Open Shrubland of *Acacia tumida* var. *pilbarensis*, *Acacia pyrifolia* var. *pyrifolia* and *Petalostylis labicheoides* over Open Shrubland of *Acacia ligulata*, *Tribulus forrestii* and *Melaleuca argentea* over Open Tussock Grassland of **Cenchrus ciliaris*, *Themeda triandra* and *Cajanus marmoratus* over Very Open Hummock Grassland of Triodia pungens on minor drainage lines.	MAC to Yandi Rail Corridor	0.6 / 0.02	Not sampled in current survey	Overall condition: Very Good	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	0.6 / 0.001			
MI Td Acow ExAaApr Tall Thicket of *Typha domingensis* with Tall Sparse Shrubland of *Acacia cowleana* over Low Sparse Shrubs of *Stemodia grossa* with Low Scattered Trees of *Eucalyptus xerothermica*, *Acacia aptaneura* and *Acacia pruinocarpa* on minor drainage lines.	MAC to Yandi Rail Corridor	Not present	n/a	Mine water discharge Overall condition: Good	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	1 / 0.004	1 relevé: CPH-045		
	Overall	1 / 0.002			
MI Tp TtCya Ch Open Hummock Grassland of *Triodia pungens* with Open Tussock Grassland of *Themeda triandra* and *Cymbopogon ambiguus* and Low Open Woodland of *Corymbia hamersleyana* in minor drainage lines.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	54.1 / 0.2	Not sampled in current survey		
	Overall	54.1 / 0.1			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
MI TtErmu ChEll AmaAmAnl Tussock Grassland of *Themeda triandra* and *Eriachne mucronata* with Low Open Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over Low Open Shrubland of *Acacia maitlandii*, *Acacia monticola* and *Androcalva luteiflora* on minor drainage lines.	MAC to Yandi Rail Corridor	7.7 / 0.2	3 quadrats: CPH-004, CPH-005, CPH-037 2 vegetation mapping notes	Overall condition: Very Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	7.7 / 0.01			
Stony Plain					
SP Aa Arc(ChfTt) AboSisl Low Open Woodland of *Acacia aptaneura* over Open Tussock Grassland of *Aristida contorta* (*Chrysopogon fallax*, *Themeda triandra*) with Low Open Shrubs of *Abutilon otocarpum* and *Sida* sp. L (A.M. Ashby 4202) on stony plains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Good to Very Good	
	Mudlark Well	625.8 / 1.9	6 quadrats: CPH-154, CPH-160, CPH-161, CPH-163, CPH-164, CPH-165 1 vegetation mapping note		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	625.8 / 1			
SP AaApr TmTwTp TtChfAri Low Open Forest of *Acacia aptaneura* and *Acacia pruinocarpa* over Open Hummock Grassland of *Triodia melvillei*, *Triodia wiseana* and *Triodia pungens* over Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Aristida inaequiglumis* on red brown loam on stony plains.	MAC to Yandi Rail Corridor	16.5 / 0.4		Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Good to Excellent	
	Mudlark Well	1,551.1 / 4.8	6 quadrats: CPH-130, CPH-132, CPH-139, CPH-145, CPH-147, CPH-148 1 relevé: CPH-136 1 vegetation mapping note		
	Pineapple Hill & Camp Hill	423.3 / 1.8	1 relevé: CPHR-177		
	Overall	1,991 / 3.3			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
SP AcaoAa ArobDiaChf Low Open Forest of *Acacia catenulata* subsp. *occidentalis* and *Acacia aptaneura* over Very Open Tussock Grassland of *Aristida obscura*, *Digitaria ammophila* and *Chrysopogon fallax* on red brown clay loam on lower stony plains.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	24.7 / 0.1	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	24.7 / 0.04			
SP TbTp HallAancAi Ch Hummock Grassland of *Triodia basedowii* and *Triodia pungens* with High Open Shrubland of *Hakea lorea* subsp. *lorea*, *Acacia ancistrocarpa* and *Acacia inaequilatera* and Scattered Low Trees of *Corymbia hamersleyana* on red brown loamy sand on stony plains.	MAC to Yandi Rail Corridor	17.1 / 0.4	Not sampled in current survey	Overall condition: Good to Very Good	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	17.1 / 0.03			
SP Tm(ArcTt) AaApr Mid Open Hummock Grassland of *Triodia melvillei* (+/- Tussock Grasses of *Aristida contorta* and *Themeda triandra*) with Low Isolated Clumps of Trees of *Acacia aptaneura* and *Acacia pruinocarpa* on stony plains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Completely Degraded, Very Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	757.1 / 3.3	6 quadrats: CPH-041, CPH-044, CPH-050, CPH-072, CPH-167, CPH-168 1 vegetation mapping note		
	Overall	757.1 / 1.3			
SP TmTp AatAk AaCdApr Hummock Grassland of *Triodia melvillei* and *Triodia pungens* with High Shrubland of *Acacia atkinsiana* and *Acacia kempeana* and Low Open Woodland of *Acacia aptaneura*, *Corymbia deserticola* and *Acacia pruinocarpa* on stony plains.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Very Good to Excellent	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	680.8 / 3	1 quadrat: CPH-061		
	Overall	680.8 / 1.1			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
SP TmTp EtEg AtenAmiAd Hummock Grassland of *Triodia melvillei* and *Triodia pungens* with Open Mallee of *Eucalyptus trivalva* and *Eucalyptus gamophylla* over High Open Shrubland of *Acacia tenuissima*, *Acacia minyura* and *Acacia dictyophleba* on stony plains.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Excellent	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	68.4 / 0.3	Not sampled in current survey		
	Overall	68.4 / 0.1			
SP TpTb Eg PlAbAanc Hummock Grassland of *Triodia pungens* and *Triodia basedowii* with Open Mallee of *Eucalyptus gamophylla* over Shrubland of *Petalostylis labicheoides*, *Acacia bivenosa* and *Acacia ancistrocarpa* on red brown loamy sand on stony plains and footslopes.	MAC to Yandi Rail Corridor	Not present	n/a	Overall condition: Very Good to Excellent	No photograph available.
	Mudlark Well	133.9 / 0.4	Not sampled in current survey		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	133.9 / 0.2			
SP TpTm AaExAcao ApaErffAads Hummock Grassland of *Triodia pungens* and *Triodia melvillei* with Low Open Woodland of *Acacia aptaneura*, *Eucalyptus xerothermica* and *Acacia catenulata* subsp. *occidentalis* over Open Shrubland of *Acacia pachyacra*, *Eremophila forrestii* subsp. *forrestii* and *Acacia adsurgens* on stony plains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Eremophila magnifica* subsp. *velutina* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Eremophila magnifica* subsp. *magnifica* (P4) Overall condition: Very Good to Excellent	
	Mudlark Well	5,464.8 / 16.8	5 quadrats: CPH-117, CPH-120, CPH-209, CPH-218, CPH-227 3 relevés: CPH-135, CPH-214, CPHR-162		
	Pineapple Hill & Camp Hill	2,098.4 / 9.1	3 quadrats: CPH-048, CPH-230, CPH-233 2 vegetation mapping notes		
	Overall	7,563.2 / 12.6			
SP Tp(Tm) Eg(Ex) AeAa Hummock Grassland of *Triodia pungens* (+/-*Triodia melvillei*) with Low Open Mallee Woodland *Eucalyptus gamophylla* (*Eucalyptus xerothermica*) over High Open Shrubland of *Acacia elachantha* and *Acacia aptaneura* on plains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3) Overall condition: Excellent	
	Mudlark Well	283.3 / 0.9	1 relevé: CPH-202		
	Pineapple Hill & Camp Hill	2,840.3 / 12.3	6 quadrats: CPH-064, CPH-067, CPH-068, CPH-074, CPH-078, CPH-080 1 relevé: CPHR-065 2 vegetation mapping notes		
	Overall	3,123.6 / 5.2			

Vegetation Code and Description	Study Area	Extent (ha / %)	Sample Sites	Features of Interest & Condition	Representative Photo
SP Tt(ArcEua) Hall(Aan) Mid Tussock Grassland of *Themeda triandra* (+/- *Aristida contorta*, *Eulalia aurea*) with Low Isolated Clumps of Trees of *Hakea lorea* subsp. *lorea* (+/- *Acacia aneura* group) on stony plains.	MAC to Yandi Rail Corridor	Not present	n/a	Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) Overall condition: Very Good	
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	124.7 / 0.5	3 quadrats: CPH-042, CPH-043, CPH-055		
	Overall	124.7 / 0.2			
SP TvTwTp EgEt AbApaApr Hummock Grassland of *Triodia vanleeuwenii*, *Triodia wiseana* and *Triodia pungens* with Very Open Mallee of *Eucalyptus gamophylla* and *Eucalyptus trivalva* over Open Shrubland of *Acacia bivenosa*, *Acacia pachyacra* and *Acacia pruinocarpa* on stony plains.	MAC to Yandi Rail Corridor	84.2 / 2	Not sampled in current survey	Overall condition: Excellent	No photograph available.
	Mudlark Well	125.2 / 0.4			
	Pineapple Hill & Camp Hill	34.7 / 0.2			
	Overall	244.1 / 0.4			
Mapping Units					
Cleared Cleared areas – tracks and drilling pads	MAC to Yandi Rail Corridor	785.2 / 18.5	Not sampled in current survey	Significant flora present: • *Aristida lazaridis* (P3) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) • *Lepidium catapycnon* (P4) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) Overall condition: Cleared	No photograph available.
	Mudlark Well	352.2 / 1.1			
	Pineapple Hill & Camp Hill	168.7 / 0.7	1 vegetation mapping note		
	Overall	1,306.1 / 2.2			
Rehabilitation Rehabilitation – areas undergoing rehabilitation from mining-related vegetation clearing	MAC to Yandi Rail Corridor	9.7 / 0.2	Not sampled in current survey	Overall condition: Degraded	No photograph available.
	Mudlark Well	Not present	n/a		
	Pineapple Hill & Camp Hill	Not present	n/a		
	Overall	9.7 / 0.02			

660000 670000 680000 690000 700000

7480000

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Great Northern Hwy

Vegetation Type

- CP TwTrag Ese AbPlApyp
- Cleared
- FP Aa TtAri Pto
- FP AaAcaoAp ErlnSolPto ArcErdiArj
- FP AaApr PtoErln ArcArobTt
- FP AaApr Tm(Tp) ArcTtChf
- FP TtArcArob AmacAinApr PtooAbff
- FS Tp EgEll Aat
- FS Tp(Tv) Eg AeAd
- FS Tv CddHc AancAiGrwh
- FS TvTp CdEll AatAtenAanc
- FS TvTp Eg Ell
- GG AaAcaoEll DopErtiErjp TpTw
- GG CcollCfFib ErhrDopDovm CyaTtErmu
- GG CfEllFib AhDovmAsha CyaErmuThmb
- HC Tw Ah EkkEgCh
- HC TwTvTp EllCh Ah
- HS Tbr Ell Er
- HS TbrTw Ell
- HS TbrTw Ell CyaThmbErmu
- HS TvTwTp EllCh AhiAaa
- HS Tw(Tv) EllCh AaaAhiAm
- HS TwTbr Ai Inr
- HS TwTpTbr Ell Ep
- ME BoeTtChf AaEv Sal
- ME EuaTtErt EvEx GoroAeAma
- ME TtAriCya ChEll AmPlAnl
- ME TtEuaCya ExCh AnlApyErlo
- MI AmAancAe TpTw TtPamuEua
- MI AtpPlAm TpTv ChEll
- MI Td Acow ExAaApr
- MI Tp TtCya Ch
- SP AaApr TmTwTp TtChfAri
- SP Tm(ArcTt) AaApr
- SP TmTp AatAk AaCdApr
- SP TmTp EtEg AtenAmiAd
- SP Tp(Tm) Eg(Ex) AeAa
- SP TpTm AaExAcao ApaErffAads
- SP Tt(ArcEua) Hall(Aan)
- SP TvTwTp EgEt AbApaApr

LEGEND

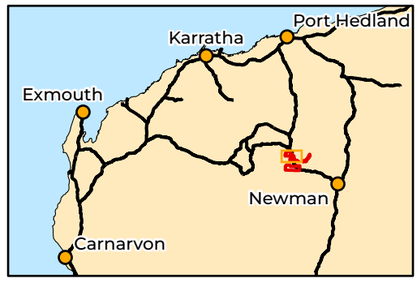
- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:116,000

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Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 22/11/2024



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CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.6a: Vegetation types in the Study Area

700000 710000 720000 730000

7480000 7470000

Vegetation Type

- CP TwTrag Ese AbPlApyp
- Cleared
- FP AcaoAaEx Erff Tp
- FS Tv CddHc AancAiGrwh
- FS TvTpTw Ell AbApaAanc
- FS Tw Ell
- GG CfEllFib AhDovmAsha CyaErmuThmb
- GG TtErmuThmb EllChCf AtpGoroPl
- HC Tw AiAb InrSeao
- HC TwTvTp EllCh Ah
- HS TbrTw Ell
- HS Tv(Tw) Ell AbAancSegg
- HS Tv(Tw) EllCdd AhiAaa
- HS TvTwTp EllCh AhiAaa
- HS TwTpTv Ell AprAaAanc
- MA CcCs Aci EcrEv
- MA EcrEv AciApypMg CcEuaTt
- MA EcrEv AcpAtheEv TpTlo
- MA EcrEvEx ApypAtpGoro TtEuaCyp
- MA EcrEvMa AcpAamAthe TydCyv
- MA EvAciEcr TercCocrApyp CcEuaTt
- ME AtpAmAma TtEuaTp ChEllEx
- ME Tp(Tv) AaAprEx Pl
- ME TpTlo ExAciCh PlApypGoro
- ME TtAriCya ChEll AmPlAnl
- ME TtChfEua ExEvCh PlApaApyp
- MI AtpPlAm TpTv ChEll
- MI AtpApypPl AlTrfMa CcTtCam
- MI TtErmu ChEll AmaAmAnl
- Rehabilitation
- SP AaApr TmTwTp TtChfAri
- SP TbTp HallAancAi Ch
- SP TvTwTp EgEt AbApaApr

LEGEND

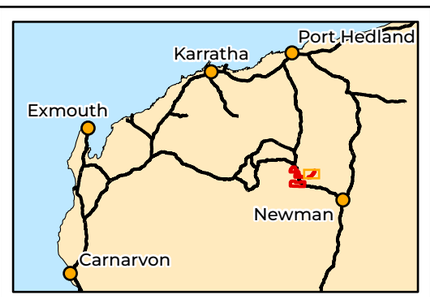
- Study Area
- Approval Boundary
- Rail

Biologic

Scale 1:86,000

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Coordinate System: GDA 1994 MGA Zone 50 Transverse Mercator Created: 22/11/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.6b: Vegetation types in the Study Area

670000 680000 690000

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7440000

Vegetation Type

- CP TwTrag Ese AbPlApyp
- Cleared
- FP AaAcaoAp ErlnSolPto ArcErdiArj
- FP AaApApt TtChfErb
- FP AaApr Ptoo Tt
- FP AaApt SeaaPtooSisl Arc
- FP AaCoas Mav Tm
- FP Thhs Coas PtoSaa
- FP TpTm AaApaAcao
- FP TtEua ExAa AprAtpErlo
- FS Tp(Tv) Eg AeAd
- FS Tv CddHc AancAiGrwh
- FS Tv EllCdd AbSolAten
- GG AaAcaoEll DopErtiErjp TpTw
- GG CcolCfEll ErmuThmbCya
- GG CfEllFib AhDovmAsha CyaErmuThmb
- GG TtErmuThmb EllChCf AtpGoroPl
- HC Tp(TvTw) Ell Segg
- HC TpTw Ell NehrOls
- HC Tw Ah EkkEgCh
- HC Tw AiAb InrSeao
- HC TwTbrTp EllCh AmaGrwhAb
- HC TwTvTp EllCh Ah
- HS EnlCya ErfrAte InmDiau
- HS Tbr Ell Er
- HS TbrTw Ell
- HS TvTwTp EllCh AhiAaa
- HS TwTpTbr Ell Ep
- HS TwTpTv Ell AprAaAanc
- MA EcrEvEx ApypAtpGoro TtEuaCyp
- ME TpTlo ExAciCh PlApypGoro
- ME TtAriCya ChEll AmPlAnl
- MI AbAdAma Tp TtPamuEua
- MI AtpPlAm TpTv ChEll
- SP Aa Arc(ChfTt) AboSisl
- SP AaApr TmTwTp TtChfAri
- SP AcaoAa ArobDiaChf
- SP Tp(Tm) Eg(Ex) AeAa
- SP TpTb Eg PlAbAanc
- SP TpTm AaExAcao ApaErffAads
- SP TvTwTp EgEt AbApaApr

Great Northern Hwy

LEGEND

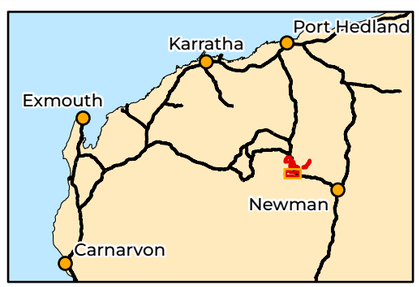
- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:93,000

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Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 22/11/2024



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Figure 4.6c: Vegetation types in the Study Area

4.2.6.1 Significant vegetation

None of the vegetation types described and delineated from the Study Area are considered to be analogous with any TECs known to occur in the Pilbara region.

Two PECs, 'Coolibah – Lignum Flats: subtype 2' (P1) and 'West Angelas Cracking-Clays' (P1), have buffers overlapping with the Study Area, but the location of these PECs are not directly within the Study Area. Vegetation of the Study Area recorded within the buffer areas of these PECs did not align with the PEC descriptions (see Table 4.14). It is considered that none of the vegetation types within the Study Area are analogous with any PECs known to occur in the Pilbara region (Table 4.14).

Table 4.14: Assessment of PEC occurrence within the Study Area

Community	Status	Present in Study Area	Reasoning
Coolibah-lignum flats: *Eucalyptus victrix* over lignum community in the Pilbara Subtype 2	P1	No	One area within the Study Area was previously mapped as FP ErbEuaTt Ev Duf, containing key indicator taxa for both PEC sub-types: *Eucalyptus victrix*, *Duma florulenta*, *Eriachne benthamii*, and *Eulalia aurea*. This occurred within a narrow floodplain/ drainage area in the southwestern corner of Pineapple Hill and Camp Hill area and was approximately 2.3 km northwest of the buffer for Coolibah – Lignum Flats: subtype 2. This area was sampled via a quadrat in 2023 during the current survey, and vegetation was mapped as ME BoeTtChf AaEv Sal, with only *E. victrix* recorded. There are no BHP flora records for *D. florulenta* within this vegetation type. As such, the vegetation does not align with the PEC.
Coolibah-lignum flats: *Eucalyptus victrix* over lignum community in the Pilbara Subtype 3	P1	No	
West Angelas Cracking-Clays	P1	No	Only one indicator taxon, *Sida fibulifera*, was recorded. *S. fibulifera* is common and was found throughout multiple landforms. The Jerrinah formation (associated with this PEC) overlaps the south-eastern boundary of Mudlark Well, but the vegetation, soils and landforms in this area do not match the PEC description. Furthermore, no *Astrebla* (key indicator species) were recorded in the Study Area.
Brockman Iron cracking clay communities of the Hamersley Range	P1	No	Cracking clay and *Astrebla lappacea* not present.
Weeli Wolli Spring Community	P1	No	There were no permanent pools or springs recorded during the current survey. This PEC is restricted to permanent springs along Weeli Wolli Creek to the east of the Study Area and does not occur within the Study Area.

Community	Status	Present in Study Area	Reasoning
Riparian flora and plant communities of springs and river pools with high water permanence of the Pilbara Region	P2	No	This PEC was identified by (Biologic, 2021) within Yandicoogina Gorge approximately 0.4 km east of the Study Area. Vegetation type MA EcrEvMa AcpAamAthe TydCyv overlaps with the gorge and also extends into parts of the Study Area. This vegetation type was not visited during the current survey, however, previous survey work completed by Biologic (2021) suggests that permanent pools do not occur within the portion of the vegetation type occurring in the Study Area. Although the PEC does occur adjacent to the Study Area, it is likely only the extremities of the PEC would overlap with the Study Area, or an area representing a buffer zone for the PEC.
Kumina Land System	P3	No	This Land System does not occur within the Study Area.
Fortescue Marsh (Marsh Land System)	P1	No	This Land System does not occur within the Study Area.
Freshwater claypans of the Fortescue Valley	P1	No	There were three vegetation types with *Eriachne* spp. as part of the dominant tussock grassland layer (GG TtErmuThmb EllChCf AtpGoroPl, ME EuaTtErt EvEx GoroAeAma, MI TtErmu ChEll AmaAmAnl), but none of these occurred on claypans.
Vegetation of sand dunes of the Hamersley Range/Fortescue Valley	P3	No	There were no sand dunes present within the Study Area.

Vegetation of other significance

Thirty-nine vegetation types (out of a total of 77) from nine of the 10 landforms across the Study Area, supported one or more priority plants (Table 4.15). These vegetation types provide some limited local significance due to suitable habitat for significant flora taxa being presence, however, the priority flora can occur across numerous habitats and vegetation types and are known to occur relatively extensively across the Pilbara (see Section 4.2.2).

Table 4.15: Vegetation types supporting priority flora

Landform	Vegetation type	Taxon	Number of point-locations	Number of individuals
Drainage Area/ Floodplain	FP Aa TtAri Pto	*Aristida lazaridis* (P3)	2	200
		Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	1	2
		Vittadinia sp. Coondewanna Flats (S. van Leeuwen 4684) (P3)	1	1
	FP AaAcaoAp ErlnSolPto ArcErdiArj	*Aristida jerichoensis* var. *subspinulifera* (P3)	6	400
		Aristida lazaridis (P3)	56	1,001
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	24	55
	FP AaApr Ptoo Tt	*Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3)	27	61
	FP AaApr Tm(Tp) ArcTtChf	*Aristida jerichoensis* var. *subspinulifera* (P3)	1	3
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	31	61
		Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	1	1
	FP AaApApt TtChfErb	*Aristida jerichoensis* var. *subspinulifera* (P3)	1	1
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	4	23
	FP AaApt SeaaPtooSisl Arc	*Aristida jerichoensis* var. *subspinulifera* (P3)	14	73
		Aristida lazaridis (P3)	16	62
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	13	28
	FP AaCoas Mav Tm	*Aristida jerichoensis* var. *subspinulifera* (P3)	2	36
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	3	18
	FP TpTm AaApaAcao	*Aristida jerichoensis* var. *subspinulifera* (P3)	24	581
		Aristida lazaridis (P3)	1	4
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	57	100

Landform	Vegetation type	Taxon	Number of point-locations	Number of individuals
Drainage Area/ Floodplain cont.	FP TtArcArob AmacAinApr PtooAbff	*Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3)	2	53
	FP TtEua ExAa AprAtpErlo	*Aristida jerichoensis* var. *subspinulifera* (P3)	5	192
		Aristida lazaridis (P3)	2	5
Footslope	FS Tp EgEll Aat	*Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3)	2	5
	FS Tv CddHc AancAiGrwh	*Aristida jerichoensis* var. *subspinulifera* (P3)	1	10
		Aristida lazaridis (P3)	10	70
		Eremophila magnifica subsp. *velutina* (P3)	11	34
		Eremophila naaykensii (P3)	4	4
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	12	14
	FS Tv EllCdd AbSolAten	*Eremophila naaykensii* (P3)	1	1
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	2	2
		Lepidium catapycnon (P4)	1	1
Hillslope	HS TbrTw Ell	*Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2)	6	41
		Eremophila naaykensii (P3)	46	327
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	1	1
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	19	698
		Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	10	17
	HS Tv(Tw) EllCdd AhiAaa	*Rostellularia adscendens* var. *latifolia* (P3)	1	10
	HS TvTwTp EllCh AhiAaa	*Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3)	1	1

Landform	Vegetation type	Taxon	Number of point-locations	Number of individuals
Hillslope cont.	HS Tw(Tv) EllCh AaaAhiAm	*Eremophila naaykensii* (P3)	1	2
		Rostellularia adscendens var. *latifolia* (P3)	11	52
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	72	1,854
		Eremophila magnifica subsp. *magnifica* (P4)	33	72
	HS TwTbr Ai Inr	*Rostellularia adscendens* var. *latifolia* (P3)	1	4
Hillcrest/ Upper Hillslope	HC Tp(TvTw) Ell Segg	*Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2)	6	135
		Eragrostis sp. Mt Robinson (S. van Leeuwen 4109) (P3)	1	1
		Eremophila naaykensii (P3)	1	1
		Indigofera gilesii (P3)	1	1
		Pilbara trudgenii (P3)	2	6
		Rostellularia adscendens var. *latifolia* (P3)	1	4
		Solanum kentrocaule (P3)	1	1
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	7	145
		Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	1	1
	HC Tw Ah EkkEgCh	*Eremophila naaykensii* (P3)	13	294
		Solanum kentrocaule (P3)	1	1
		Eremophila magnifica subsp. *magnifica* (P4)	2	6
	HC Tw AiAb InrSeao	*Aristida lazaridis* (P3)	2	12

Landform	Vegetation type	Taxon	Number of point-locations	Number of individuals
Hillcrest/ Upper Hillslope cont.	HC TwTvTp EllCh Ah	*Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2)	1	3
		Eremophila magnifica subsp. *velutina* (P3)	14	37
		Eremophila naaykensii (P3)	8	35
		Indigofera gilesii (P3)	1	1
		Solanum kentrocaule (P3)	2	2
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	2	230
		Lepidium catapycnon (P4)	1	50
		Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	20	90
Gorge Gully	GG AaAcaoEll DopErtiErjp TpTw	*Eremophila* sp. West Angelas (S. van Leeuwen 4068) (P2)	5	21
		Hibiscus sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2)	6	168
		Pilbara trudgenii (P3)	4	42
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	6	28
		Solanum kentrocaule (P3)	4	11
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	4	280
		Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	1	1
	GG CcolCfEll ErmuThmbCya	*Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2)	37	433
		Eremophila naaykensii (P3)	14	142
		Oxalis sp. Pilbara (M.E. Trudgen 12725) (P3)	2	3
		Pilbara trudgenii (P3)	1	25
		Rostellularia adscendens var. *latifolia* (P3)	2	21
		Solanum kentrocaule (P3)	4	9
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	2	70

Landform	Vegetation type	Taxon	Number of point-locations	Number of individuals
Gorge Gully cont.	GG CcollCfFib ErhrDopDovm CyaTtErmu	*Rostellularia adscendens* var. *latifolia* (P3)	14	163
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	55	774
	GG CfEllFib AhDovmAsha CyaErmuThmb	*Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2)	11	100
		Eremophila naaykensii (P3)	28	246
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	2	3
		Solanum kentrocaule (P3)	3	3
		Eremophila magnifica subsp. *magnifica* (P4)	9	31
	GG TtErmuThmb EllChCf AtpGoroPl	*Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4)	20	41
Major Drainage Line	MA EcrEvEx ApypAtpGoro TtEuaCyp	*Aristida lazaridis* (P3)	36	283
Medium Drainage Line	ME BoeTtChf AaEv Sal	*Oxalis* sp. Pilbara (M.E. Trudgen 12725) (P3)	1	1
		Rostellularia adscendens var. *latifolia* (P3)	1	50
	ME TtAriCya ChEll AmPlAnl	*Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2)	1	2
		Eremophila naaykensii (P3)	8	351
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	4	170
	ME TtChfEua ExEvCh PlApaApyp	*Aristida lazaridis* (P3)	19	83
	ME TtEuaCya ExCh AnlApyErlo	*Aristida lazaridis* (P3)	14	67
		Ipomoea racemigera (P3)	13	177
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	1	1
		Rostellularia adscendens var. *latifolia* (P3)	62	267
		Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	10	231

Landform	Vegetation type	Taxon	Number of point-locations	Number of individuals
Minor Drainage Line	MI AtpPlAm TpTv ChEll	*Hibiscus* sp. Gurinbiddy Range (M. E. Trudgen MET 15708) (P2)	1	2
		Aristida lazaridis (P3)	1	1
Stony Plain	SP Aa Arc(ChfTt) AboSisl	*Aristida jerichoensis* var. *subspinulifera* (P3)	75	1,306
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	30	60
	SP AaApr TmTwTp TtChfAri	*Aristida jerichoensis* var. *subspinulifera* (P3)	4	70
		Aristida lazaridis (P3)	3	4
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	26	53
	SP Tm(ArcTt) AaApr	*Aristida lazaridis* (P3)	13	54
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	4	17
	SP TpTm AaExAcao ApaErffAads	*Aristida jerichoensis* var. *subspinulifera* (P3)	1	3
		Aristida lazaridis (P3)	46	417
		Eremophila magnifica subsp. *velutina* (P3)	5	11
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	36	56
		Eremophila magnifica subsp. *magnifica* (P4)	2	6
	SP Tp(Tm) Eg(Ex) AeAa	*Aristida lazaridis* (P3)	1	25
		Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	1	50
	SP Tt(ArcEua) Hall(Aan)	*Aristida jerichoensis* var. *subspinulifera* (P3)	6	409
		Aristida lazaridis (P3)	14	77
		Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	2	3

Fifteen vegetation types within the Study Area are analogous with 'ecosystems at risk' for the Hamersley IBRA subregion (Kendrick, 2003) (Table 4.16).

Vegetation types containing mulga species as the most dominant components (*Acacia aptaneura*, *Acacia paraneura* and/ or *Acacia pteraneura*) of either open forest, woodland, open woodland, are considered to be 'valley floor mulga', totalling nine vegetation types. Three of these are also considered to be 'grove/ inter-grove mulga'. The 'valley floor mulga' vegetation types also contained tussock/ bunch grasses as the grassland layer. These mulga over tussock grass ecosystems occur on loamy, friable soils susceptible to erosion, and are open to heavy grazing and fire, making them vulnerable to ecosystem degradation/ alteration.

All 'major ephemeral water courses' are described as being at risk by Kendrick (2003) and include the six vegetation types occurring on major drainage lines across the Study Area. Threatening processes for these ecosystems include stock trampling and grazing, weed ingress, frequent fires, and mining (Kendrick, 2003).

Table 4.16: Vegetation types resembling ecosystems at risk in the Study Area

Ecosystem at Risk	Analogous Vegetation Types	Landform(s)	Extent within Study Area	
			ha	%
Valley floor mulga	• FP Aa TtAri Pto • FP AaApr Ptoo Tt • FP AaApr PtoErln ArcArobTt • FP AaApt SeaaPtooSisl Arc • FP AaCoas Mav Tm • SP Aa Arc(ChfTt) AboSisl	Drainage Areas/ Floodplains, Stony Plains	3,130.4	5.2
Grove/ inter-grove mulga & Valley floor mulga	• FP AaApApt TtChfErb • FP AaAcaoAp ErlnSolPto ArcErdiArj • FP AaApr Tm(Tp) ArcTtChf	Drainage Areas/ Floodplains	3,987.6	6.7
Major ephemeral water courses	• MA CcCs Aci EcrEv • MA EcrEv AciApypMg CcEuaTt • MA EcrEv AcpAtheEv TpTlo • MA EcrEvEx ApypAtpGoro TtEuaCyp • MA EcrEvMa AcpAamAthe TydCyv • MA EvAciEcr TercCocrApyp CcEuaTt	Major Drainage Lines	249.4	0.4

Groundwater dependent ecosystems

Drainage lines occurring throughout the Study Area have the potential to support phreatophytic flora, or GDV. Drainage line vegetation types were assessed for their level of groundwater dependence based on the vegetation description, as well as presence or absence of riparian flora taxa. Eight drainage line vegetation types were rated across three groundwater dependence ratings (low to high) (Table 4.17 and Figure 4.7). The remaining 11 drainage line vegetation types were rated as negligible or no groundwater dependency (Table 4.17). The remainder of the Study Area occurring on other landforms is assumed to be negligible or none. The riparian taxa recorded from drainage line vegetation types and their level of groundwater dependency are detailed in Table 4.18.

The field surveys recorded two key riparian tree species, *Eucalyptus camaldulensis* subsp. *refulgens* and *Eucalyptus victrix*. *Eucalyptus camaldulensis* is primarily a facultative phreatophyte and is generally found near rivers and major creek systems with a shallow water table (2 – 5 m below ground) (Landman, 2001). In some locations, however, where soil moisture is consistently recharged by streamflow, *Eucalyptus camaldulensis* may not require groundwater at all and would be classed as a vadophyte (SKM, 2012). *Eucalyptus victrix* is primarily a vadophyte and generally occurs in drier areas than *E. camaldulensis*. Groundwater studies by Loomes (2010) have shown that the mean minimum water level depth occurring under *E. victrix* populations was somewhat greater than that for *E. camaldulensis*. The water use strategy of *E. victrix* appears to be highly plastic and opportunistic, enabling survival in a wide range of ecohydrological settings (Pfautsch *et al.*, 2014). *Eucalyptus camaldulensis* and/ or *E. victrix* were key taxa occurring in many of the drainage line vegetation types in the Study Area, with variations in their density indicating differing levels of potential groundwater dependence (Table 4.17).

Melaleuca argentea is a dominant overstorey taxon of vegetation type MA EcrEvMa AcpAamAthe TydCyv which has previously been mapped within Yandicoogina Gorge (Biologic, 2021), located within the outer eastern edge of the MAC to Yandi Railway Corridor. *Melaleuca argentea* is an obligate phreatophyte, uses groundwater almost exclusively, and is confined to the wettest positions in the landscape (McLean, 2014; O'Grady *et al.*, 2006). Records for this taxon are located outside of the Study Area, primarily within Yandicoogina Gorge to the east, and hence it is not listed in Table 4.18.

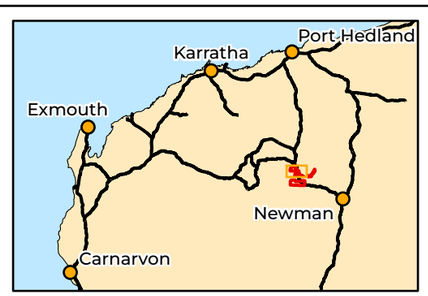
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Great Northern Hwy

LEGEND
- Study Area
- Approval Boundary
- State Road
- Rail

Biologic

Scale 1:116,000
0 1 2 3 4 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 18/11/2024



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Figure 4.7a: Groundwater dependent vegetation in the Study Area

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LEGEND

Study Area
Approval Boundary
Rail

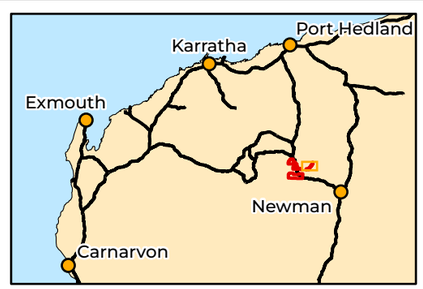
Groundwater Dependent Vegetation

MA EcrEv AciApypMg CcEuaTt
MA EcrEv AcpAtheEv TpTlo
MA EcrEvEx ApypAtpGoro TtEuaCyp
MA EcrEvMa AcpAamAthe TydCyv
MA EvAciEcr TercCocrApyp CcEuaTt

Biologic

Scale 1:86,000
0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024



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Figure 4.7b: Groundwater dependent vegetation in the Study Area

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Great Northern Hwy

LEGEND

Study Area

Approval Boundary

State Road

Rail

Groundwater Dependent Vegetation

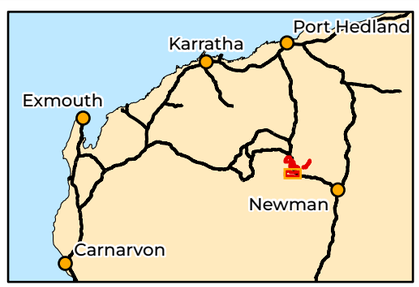
MA EcrEvEx ApypAtpGoro TtEuaCyp

Biologic

Scale 1:93,000

0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 19/11/2024



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CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.7c: Groundwater dependent vegetation in the Study Area

Table 4.17: Groundwater dependence ratings of drainage line vegetation types

Groundwater Dependence	Reasoning	Vegetation Types	Extent within Study Area	
			ha	%
High (GDV)	• Presence of mature obligate phreatophyte (*Melaleuca argentea*) and several taxa dependent upon permanent surface water (*Eleocharis geniculata*, *Fimbristylis sieberiana* (P3), *Imperata cylindrica*) • Major drainage line landform	• MA EcrEvMa AcpAamAthe TydCyv	10.4	0.02
Moderate (potential GDV)	• Obligate phreatophytes absent • Presence of mature facultative phreatophyte *Eucalyptus camaldulensis* subsp. *refulgens* • Mesic indicator taxa more prevalent • Major drainage line landform	• MA EcrEv AciApypMg CcEuaTt • MA EcrEv AcpAtheEv TpTlo • MA EcrEvEx ApypAtpGoro TtEuaCyp • MA EvAciEcr TercCocrApyp CcEuaTt	226.5	0.4
Low	• Obligate phreatophytes absent • Scattered presence of *Eucalyptus camaldulensis* subsp. *refulgens* (in one vegetation type only) • Mature *Eucalyptus victrix* present, but not dominant • Vadophytes more prevalent e.g., *Eucalyptus xerothermica* • Major and medium drainage line landforms	• MA CcCs Aci EcrEv • ME EuaTtErt EvEx GoroAeAma • ME TtChfEua ExEvCh PlApaApyp	74.4	0.1
Negligible	• Obligate/ facultative phreatophytes absent. Scattered/ occasional presence of *Eucalyptus victrix* (in one vegetation type only) • Other vadophytes present e.g., *Eucalyptus xerothermica*, *Corymbia hamersleyana* • Medium and minor drainage line landforms	• ME AtpAmAma TtEuaTp ChEllEx • ME BoeTtChf AaEv Sal • ME Tp(Tv) AaAprEx Pl • ME TpTlo ExAciCh PlApypGoro • ME TtAriCya ChEll AmPlAnl • ME TtEuaCya ExCh AnlApyErlo • MI AtpPlAm TpTv ChEll • MI AtpApypPl AlTrfMa CcTtCam • MI Td Acow ExAaApr • MI Tp TtCya Ch • MI TtErmu ChEll AmaAmAnl	2,833.3	4.7

Table 4.18: Riparian taxa recorded from drainage line vegetation the Study Area

Source: information collated from (Cook & Eamus, 2018; Masini, 1988; SKM, 2012; WAH, 1998 -)

Taxon	Lifeform	Ecohydrological Category/ Interpretation	Ecohydrological Notes	Level of Groundwater Dependence				
				High	Moderate	Low	Negligible	None
Eucalyptus camaldulensis	Tree	Facultative phreatophyte/ Vadophyte	Moderate to High groundwater dependence	x	x			
Eucalyptus victrix		Vadophyte/ Facultative phreatophyte	Moderate groundwater dependence	x	x	x		
Eucalyptus xerothermica			Low groundwater dependence			x	x	x
Melaleuca glomerata	Shrub or Tree	Vadophyte/ Facultative phreatophyte (inferred)	Moderate to High groundwater dependence	x	x			
Acacia aptaneura			Potentially dependent on groundwater				x	x
Acacia coriacea subsp. pendens			Potentially dependent on groundwater		x	x	x	
Schoenoplectus subulatus	Perennial Sedge	Emergent macrophyte	Taxon grows in swamps and pools. May be indirectly groundwater-dependent if growing in spring-fed pools.		x			
Typha domingensis					x	x		
Acacia ampliceps	Shrub or Tree	Mesic indicator - high level	Potentially dependent on groundwater		x			
Cyperus vaginatus	Perennial Sedge	Mesic indicator - moderate level	Not groundwater dependent		x	x		
Marsilea hirsuta	Perennial Fern				x		x	

Taxon	Lifeform	Ecohydrological Category/ Interpretation	Ecohydrological Notes	Level of Groundwater Dependence				
				High	Moderate	Low	Negligible	None
Schoenoplectiella dissachantha	Annual Sedge						x	
Abutilon amplum	Shrub	Mesic indicator - low level	Potentially dependent on groundwater		x			
Cyperus ixiocarpus	Perennial Sedge		Not groundwater dependent.				x	
Alternanthera nana	Perennial Herb or Shrub						x	x
Alternanthera denticulata var. *denticulata*	Annual/ Perennial Herb		Dependent on seasonal surface water flows for germination and growth. Dependent on groundwater when present, although most are annuals so will appear when sufficient recharge of subsurface water has occurred.				x	
Alternanthera angustifolia	Annual Herb							x
Ammannia baccifera					x			
Ammannia multiflora					x			x
Bergia pedicellaris					x		x	
Centipeda minima subsp. *macrocephala*					x			x
Bulbostylis barbata	Annual Sedge				x			x
Cyperus difformis					x			
Cyperus iria		Mesic indicator - low level			x			x
Fimbristylis microcarya					x			
Dactyloctenium radulans	Annual Grass							x
Setaria dielsii								x

Taxon	Lifeform	Ecohydrological Category/ Interpretation	Ecohydrological Notes	Level of Groundwater Dependence				
				High	Moderate	Low	Negligible	None
Acacia bivenosa	Shrub	Riparian taxon	Potentially dependent on groundwater (dependent on context)			x	x	x
Acacia maitlandii						x	x	x
Eremophila latrobei							x	x

Note: Shaded boxes indicate taxa that were present in the Study Area but not recorded during the current survey (i.e., data was from BHP flora records).

Sheet-flow dependent ecosystems

Mulga banding is observable on aerial imagery in two general areas within the Study Area, coinciding with the Wannamunna Land System, which is known to support groving and sheet flow. These two areas of mulga banding correspond with the vegetation types considered to represent the 'grove/ inter-grove mulga' ecosystem at risk (Table 4.16).

There was a small area on the southern boundary of Mudlark Well, coinciding with vegetation type FP AaApApt TtChfErb (Plate 4.1), with three mulga species present (A*cacia aptaneura*, *Acacia paraneura* and *Acacia pteraneura*). This vegetation type had been previously mapped (i.e., was present in the BHP WAIO geodatabase of previous vegetation mapping) but was also sampled by the current survey (quadrats CPH-128 & CPH-131). There was only one occurrence of this vegetation type, with strong and distinct banding across its entire extent.

Mulga groving was also present in the south-western section of Pineapple Hill and Camp Hill, coinciding with vegetation types FP AaAcaoAp ErlnSolPto ArcErdiArj and FP AaApr Tm(Tp) ArcTtChf. These vegetation types were dominated by *Acacia aptaneura* and other non-mulga *Acacia* species. The banding in this area was weaker, more scattered, and did not occur across the entire extent of the two vegetation types. This vegetation was sampled by several sites during the current survey with two of these placed within clearly observable groving/ intergroving (quadrats CPH-175 & CPH-232).

Vegetation types SP TpTm AaExAcao ApaErffAads and SP AaApr TmTwTp TtChfAri contained *Acacia aptaneura* and displayed a small amount of banding in the southeastern part of Pineapple Hill and Camp Hill, but the majority of their extent does not represent sheet-flow dependent vegetation. There were several other vegetation types on stony plains and drainage areas/ floodplains dominated by mulga, but this vegetation did not exhibit banding and is not likely to be subject to, or reliant on, sheet flow.

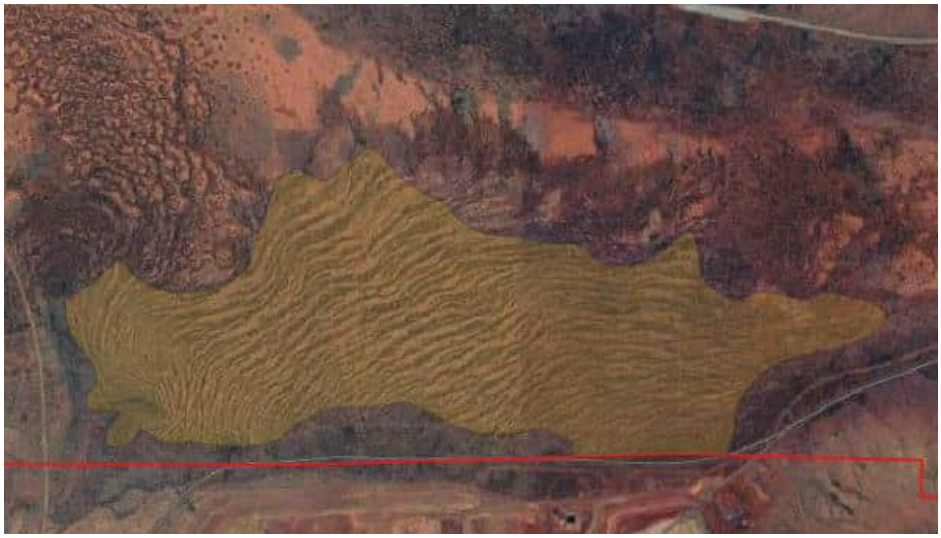


Plate 4.1: Mulga banding observable from aerial imagery – vegetation type FP AaApApt TtChfErb

4.2.7 Vegetation condition

The condition of the vegetation within the Study Area ranged from Completely Degraded to Excellent (Table 4.13, Figure 4.8). The majority of the mapped vegetation was in Good or higher condition (58,511.2 ha / 97.7%), with most of this being in Excellent condition (47,014.9 ha / 78.5%). The main disturbances observed were associated with pastoralism, mining and infrastructure, with the most common disturbance types being mining exploration and weed invasion.

Roads and tracks provide a pathway for weed seeds being introduced into new areas, via vehicle and machinery movement (Khan *et al.*, 2012; van der Meulen & Sindel, 2008). Extensive areas within Pineapple Hill and Camp Hill, and Mudlark Well lacked tracks and were only accessible via helicopter; although weeds were spread relatively uniformly throughout the entire Study Area, cover and number of individuals was substantially lower in the remote, inaccessible areas, and was more extensive along tracks and drainage lines.

Table 4.19: Vegetation condition and extent in the Study Area

Condition	Extent			Comment
	Study Area	ha	%	
Excellent	MAC to Yandi Rail Corridor	1,480.0	34.8	Excellent vegetation was distributed across the entire Study Area but was most widespread across the more remote parts of Pineapple Hill and Camp Hill, and Mudlark Well. In these areas, even the drainage lines were in Excellent condition, and only contained minor weeds in small numbers/ cover.
	Mudlark Well	25,712.4	78.9	
	Pineapple Hill & Camp Hill	19,821.5	85.9	
	Overall	47,014.9	78.5	
Very Good	MAC to Yandi Rail Corridor	1,504.9	35.4	Vegetation in Very Good condition was found across all three areas of the Study Areas but was most prevalent in MAC to
	Mudlark Well	5,892.9	18.1	

Condition	Extent			Comment
	Study Area	ha	%	
	Pineapple Hill & Camp Hill	2,834.2	12.3	Yandi Rail Corridor, and along drainage lines where weeds were more common. Vegetation structure (i.e., understorey, mid-storey and overstorey) was intact, but some minor disturbances were present.
	Overall	10,232.0	17.1	
Good	MAC to Yandi Rail Corridor	414.8	9.8	Good condition vegetation was found across each area of the Study Area, in areas closer to infrastructure and tracks, as well as along drainage lines which were more weed infested. Vegetation structure was intact (i.e., understorey, mid-storey and overstorey) but disturbances were prevalent and clearly observable.
	Mudlark Well	610.5	1.9	
	Pineapple Hill & Camp Hill	239.0	1.0	
	Overall	1,264.3	2.1	
Poor	MAC to Yandi Rail Corridor	36.3	0.9	Vegetation in Poor condition was found only in the MAC to Yandi Railway Corridor, in areas where vegetation structure had been impacted by tracks, infrastructure and weed invasion.
	Mudlark Well	-	-	
	Pineapple Hill & Camp Hill	-	-	
	Overall	36.3	0.1	
Degraded	MAC to Yandi Rail Corridor	19.2	0.5	A small Degraded area was located within the southern portion of the MAC to Yandi Rail Corridor area adjacent to the north of Mining Area C and were undergoing rehabilitation.
	Mudlark Well	-	-	
	Pineapple Hill & Camp Hill	-	-	
	Overall	19.2	0.03	
Completely Degraded	MAC to Yandi Rail Corridor	8.4	0.2	Two small Completely Degraded areas, one in the MAC to Yandi Rail Corridor and one in the Pineapple Hill and Camp Hill area, were within weedy cattle yards with only scattered native shrubs.
	Mudlark Well	-	-	
	Pineapple Hill & Camp Hill	1.2	0.01	
	Overall	9.6	0.02	
Cleared	MAC to Yandi Rail Corridor	785.5	18.5	The cleared mapping unit was associated with roads, tracks, drill lines/ pads, and mining infrastructure.
	Mudlark Well	352.2	1.1	
	Pineapple Hill & Camp Hill	168.7	0.7	
	Overall	1,306.1	2.2	
TOTAL		**59,882.3**	**100**	

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Great Northern Hwy

LEGEND

Study Area
Approval Boundary
State Road
Rail

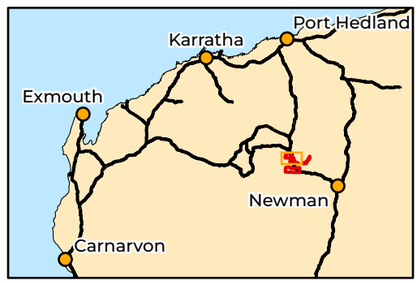
Vegetation Condition
Excellent
Very Good
Good
Completely Degraded

Cleared

Biologic

Scale 1:116,000
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Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 24/04/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.8a: Vegetation condition in the Study Area

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LEGEND

- Study Area
- Approval Boundary
- Rail

Vegetation Condition

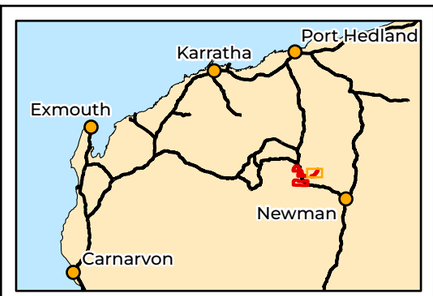
- Excellent
- Very Good
- Good
- Poor
- Degraded
- Completely Degraded
- Cleared

Biologic

Scale 1:86,000

0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 24/04/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.8b: Vegetation condition in the Study Area

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LEGEND

- Study Area
- Approval Boundary
- State Road
- Rail

Vegetation Condition

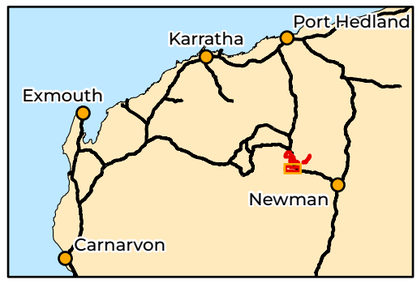
- Excellent
- Very Good
- Good
- Cleared

Biologic

Scale 1:93,000

0 1 2 3 Km

Coordinate System: GDA 1994 MGA Zone 50
Transverse Mercator Created: 24/04/2024



BHP WAIO

CPH Detailed and Targeted Flora and Vegetation Assessment

Figure 4.8c: Vegetation condition in the Study Area

4.3 Limitations and constraints

There are a number of possible limitations and constraints that can impinge on the adequacy of vegetation and flora surveys. The limitations of the current assessment are presented in accordance with EPA Technical Guidance (EPA, 2016b) (Table 4.20).

Table 4.20: Potential limitations and constraints

Limitation	Constraint	Comment
Availability of contextual information at a regional and local scale	None	Sufficient contextual information was available for the Study Area, including broad information on land systems and vegetation associations. The Study Area is located in the central Pilbara where an extensive amount of biological survey work has occurred. A comprehensive literature review was completed. Numerous flora and vegetation records were available through the eight databases reviewed as part of the desktop assessment.
Competency/ experience of the team carrying out the survey, including experience in the bioregion surveyed	None	Each survey trip was led by a Senior Botanist who met or exceeded the minimum requirements (i.e., five years field experience in the Pilbara region; see Section 4.1.1) to manage a flora and vegetation field survey in the Pilbara bioregion (EPA, 2016b).
Proportion of flora recorded and/or collected, any identification issues	None	The survey intensity (detailed and targeted) was designed to capture most of the flora within the Study Area. A total of 88.5% of taxa observed and collected from the field were able to be identified, with a moderate number of taxa (71 taxa or 11.5%) difficult to confidently identify to species or infraspecies level. These unconfirmed taxa were from many different genera and families, as well as different lifeforms (annual/ perennial, tree/ shrub/ herb/ grass/ sedge). It is unlikely that any of these unconfirmed taxa represent significant flora not previously confirmed from the Study Area.
Was the appropriate area fully surveyed (effort and extent)	None	Sampling was focused on the priority areas in line with the scope of the survey (i.e., areas that had either previously not been surveyed or where historical quadrat data was greater than five years old). Forty-seven out of a total of 77 vegetation types were visited during the current survey, most of which were sampled with a minimum of three sites (with additional sites assigned to larger units to ensure spatial coverage). Vegetation types not visited or which contained less than three sites had been sampled by previous flora and vegetation surveys (as detailed in Appendix B). The current survey aligns with EPA (2016b) guidance for a detailed survey and species accumulation curves suggest that the survey captured up to 101.3% of the expected native species richness (see Section 4.2.1). Survey trips were interrupted by personnel changes and early demobilisation, but the anticipated coverage was still achieved, and thus is not considered to be a constraint.

Limitation	Constraint	Comment
Access restrictions within the survey area	None	The Study Area was accessed via mining, exploration and pastoral tracks which provided access across much of the Study Area. Walking traverses were limited to a maximum distance of 2 km from the vehicle for safety reasons. Helicopter access was used for the more remote inaccessible areas.
Survey timing, rainfall, season of survey	None	The field survey was conducted over eight separate trips. The detailed survey trips occurred within the optimal survey period for the Eremaean Botanical Province (March – June) (EPA, 2016b). The two targeted survey trips occurred in November (Trip 1) and July (Trip 8) and concentrated on perennial taxa that could be identifiable outside of the optimal survey period. Conditions were variable prior to and during each survey trip (see Section 4.1.2 and Figure 4.1). Trip 1 (November 2021) was carried out in the dry season and no rainfall was recorded 3-months prior to the survey; however, only perennial taxa were targeted. While rainfall in the 6-months prior to the other seven trips was lower than the LTA rainfall, substantial rain events in February 2022 and April 2023 made conditions adequate for wet season and dry season sampling for the remaining seven trips (March 2022, April 2022, June 2022, April 2023, June 2023 and July 2023).
Disturbance that may have affected the results of the survey such as fire, flood or clearing	None	Disturbances within the Study Area were mainly associated with mining and pastoralism, such as cleared tracks, weed infestation and cattle grazing. There was a small area on the south side of Mt Robinson showing recent signs of fire. These disturbances are typical for the central Pilbara and did not affect the results.

5 Conclusion

Six single-phase detailed flora and vegetation surveys were completed for the CPH Study Area, where previous surveys were more than five years old or non-existent. In addition, two targeted flora surveys were undertaken where surveys had occurred recently (within five years). Eight separate trips were conducted from November 2021 to July 2023, over a total of 175 person days. There were no substantial limitations to any of the eight survey trips. The surveys and reporting have been completed in line with EPA and BHP WAIO guidelines, with survey adequacy being consistent with the level of a detailed survey. The key findings of the field surveys are;

- A total of 195 quadrats, 33 relevés, 33 mapping notes, opportunistic sampling, and targeted searches were sampled across the entire Study Area;
- A total of 548 confirmed vascular flora taxa from 63 families and 195 genera, comprising 527 native and 21 introduced taxa;
- Twenty-one significant flora taxa were recorded during the field surveys, with one of these recorded only from outside the Study Area (*Triodia karijini* [P2]):
    - *Eremophila* sp. West Angelas (S. van Leeuwen 4068) (P2) – 72 individuals from seven point-locations;
    - *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2) – 1,161 individuals from 130 point-locations;
    - *Triodia karijini* (P2) – 440 individuals from nine point-locations;
    - *Aristida jerichoensis* var. *subspinulifera* (P3) – 3,104 individuals from 141 point-locations;
    - *Aristida lazaridis* (P3) – 2,412 individuals from 240 point-locations;
    - *Eragrostis* sp. Mt Robinson (S. van Leeuwen 4109) (P3) – one individual from one point-location;
    - *Eremophila magnifica* subsp. *velutina* (P3) – 82 individuals from 30 point locations
    - *Eremophila naaykensii* (P3) – 1,846 individuals from 205 point-locations;
    - *Indigofera gilesii* (P3) – two individuals from two point-locations;
    - *Ipomoea racemigera* (P3) – 177 individuals from 13 point-locations;
    - *Oxalis* sp. Pilbara (M.E. Trudgen 12725) (P3) – five individuals from four point-locations;
    - *Pilbara trudgenii* (P3) – 73 individuals from seven point-locations;
    - *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) – 612 individuals from 303 point-locations;

- *Rostellularia adscendens* var. *latifolia* (P3) – 672 individuals from 100 point-locations;
- *Solanum kentrocaule* (P3) – 27 individuals from 15 point-locations;
- *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3) – 105 individuals from four point-locations;
- *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) – 9,569 individuals from 208 point-locations;
- *Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684) (P3) – one individual from one point-location;
- *Eremophila magnifica* subsp. *magnifica* (P4) – 115 individuals from 46 point-locations;
- *Lepidium catapycnon* (P4) – 56 individuals from three point-location; and
- *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) – 214 individuals from 70 point-locations.

- An additional seven significant flora taxa are Confirmed from the Study Area, however, were not recorded during the current surveys;
- Seven taxa considered to be flora of "other" significance, including four range extensions, and three hybrids;
- Twenty-one confirmed introduced taxa were recorded within the Study Area, with none of these listed as WoNS, but one is listed as DP, **Datura leichhardtii*;
- Post-survey review of the likelihood of significant flora occurring in the Study Area assessed no taxa as Highly Likely or Likely to occur, and 11 taxa as still being Possible to occur within the Study Area;
- 77 vegetation types were described and delineated from 28 broad floristic formations across 10 landforms. The most dominant vegetation type was SP TpTm AaExAcao ApaErffAads (7,563.2 ha / 12.6%) which occurred on Stony Plains;
- There were no confirmed TECs or PECs recorded from the Study Area during the current survey;
- Two PECs, 'Coolibah – Lignum Flats: subtype 2' (P1) and 'West Angelas Cracking-Clays' (P1), have buffers overlapping with the Study Area, but the location of these PECs are not directly within the Study Area, and vegetation recorded in the buffer areas did not align with the PEC descriptions;
- Thirty-nine vegetation types, supported one or more of the priority taxa found, and thus hold local significance in providing habitat for these taxa;
- Fifteen vegetation types are considered an 'ecosystem at risk' for the Hamersley subregion, representing 'valley floor mulga', 'grove/ inter-grove mulga' and/ or 'major ephemeral water courses';

- Drainage line vegetation types were assessed for their level of dependence upon groundwater, with one considered to have High dependency on groundwater (MA EcrEvMa AcpAamAthe TydCyv) and seven considered to have Medium or Low potential to be groundwater-dependent vegetation (MA EcrEv AciApypMg CcEuaTt, MA EcrEv AcpAtheEv TpTlo, MA EcrEvEx ApypAtpGoro TtEuaCyp, MA EvAciEcr TercCocrApyp CcEuaTt, MA CcCs Aci EcrEv, ME EuaTtErt EvEx GoroAeAma, and ME TtChfEua ExEvCh PlApaApyp);
- Three vegetation types were considered to be dependent upon overland sheet-flow of water (Sheet-flow Dependent Ecosystems): FP AaApApt TtChfErb, FP AaAcaoAp ErlnSolPto ArcErdiArj and FP AaApr Tm(Tp) ArcTtChf; and
- The vegetation condition ranged from Completely Degraded to Excellent, with the majority (97.7%) of vegetation considered to be in Good or higher condition.

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Appendix A: Conservation Codes

Environment Protection and Biodiversity Conservation Act 1999

Category	Definition
Threatened Flora Species	
Extinct (EX)	A native species is eligible to be included in the Extinct category at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died.
Extinct in the Wild (EW)	A native species is eligible to be included in the Extinct in the Wild category at a particular time if, at that time: (a) it is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or (b) it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
Critically Endangered (CR)	A native species is eligible to be included in the critically endangered category at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
Endangered (EN)	A native species is eligible to be included in the endangered category at a particular time if, at that time: (a) it is not critically endangered; and (b) it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
Vulnerable (VU)	A native species is eligible to be included in the vulnerable category at a particular time if, at that time: (a) it is not critically endangered or endangered; and (b) it is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
Conservation Dependent (CD)	A native species is eligible to be included in the Conservation Dependent category at a particular time if, at that time: (a) the species is the focus of a specific conservation program the cessation of which would result in the species becoming Vulnerable, Endangered or Critically Endangered; or (b) the following subparagraphs are satisfied (i) the species is a species of fish; (ii) the species is the focus of a plan of management that provides for management actions necessary to stop the decline of, and support the recovery of, the species so that its chances of long-term survival in nature are maximised; (iii) the plan of management is in force under a law of the Commonwealth or of a State or Territory; and (iv) cessation of the plan of management would adversely affect the conservation status of the species.

Category	Definition
Threatened Ecological Communities (TEC)	
Critically Endangered	An ecological community is eligible to be included in the critically endangered category at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
Endangered	An ecological community is eligible to be included in the endangered category at a particular time if, at that time: (a) it is not critically endangered; and (b) it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
Vulnerable	An ecological community is eligible to be included in the vulnerable category at a particular time if, at that time: (a) it is not critically endangered nor endangered; and (b) it is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

Biodiversity Conservation Act 2016

Category	Definition
Threatened Flora Species	
Critically Endangered (CR)	Threatened species considered to be "facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines." Published under schedule 1 of the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.
Endangered (EN)	Threatened species considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines." Published under schedule 2 of the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.
Vulnerable (VU)	Threatened species considered to be "facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines." Published under schedule 3 of the Wildlife Conservation (Rare Flora) Notice 2018 for vulnerable flora.
Extinct (EX)	Species where "there is no reasonable doubt that the last member of the species has died," and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act). Published as presumed extinct under schedule 4 of the Wildlife Conservation (Rare Flora) Notice 2018 for extinct flora.

Category	Definition
Extinct in the Wild (EW)	Species that "is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act). Currently there are no threatened flora species listed as extinct in the wild.
Threatened Ecological Communities (TEC)	
Critically Endangered (CR)	An ecological community is eligible for listing in the category of critically endangered ecological community at a particular time if, at that time — (a) it is facing an extremely high risk of becoming eligible for listing as a collapsed ecological community in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines; and (b) listing in that category is otherwise in accordance with the ministerial guidelines.
Endangered (EN)	An ecological community is eligible for listing in the category of endangered ecological community at a particular time if, at that time — (a) it is not a critically endangered ecological community; and (b) it is facing a very high risk of becoming eligible for listing as a collapsed ecological community in the near future, as determined in accordance with criteria set out in the ministerial guidelines; and (c) listing in that category is otherwise in accordance with the ministerial guidelines.
Vulnerable (VU)	An ecological community is eligible for listing in the category of vulnerable ecological community at a particular time if, at that time — (a) it is not a critically endangered ecological community or an endangered ecological community; and (b) it is facing a high risk of becoming eligible for listing as a collapsed ecological community in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines; and (c) listing in that category is otherwise in accordance with the ministerial guidelines.
Collapsed	An ecological community is eligible for listing as a collapsed ecological community at a particular time if, at that time — (a) there is no reasonable doubt that the last occurrence of the ecological community has collapsed; or (b) the ecological community has been so extensively modified throughout its range that no occurrence of it is likely to recover — (i) its species composition or structure; or (ii) its species composition and structure.

Department of Biodiversity, Conservation and Attractions Priority Definitions

Category	Definition
Priority Flora Species	
Priority 1 (P1)	Poorly-known Species Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g., agricultural, or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
Priority 2 (P2)	Poorly-known Species Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g., national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
Priority 3 (P3)	Poorly-known Species Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
Priority 4 (P4)	Rare, Near Threatened and other species in need of monitoring (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands. (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent. (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Category	Definition
Priority Ecological Communities (PEC)	
Priority 1 (P1)	Poorly-known ecological communities Ecological communities that are known from very few occurrences with a very restricted distribution (generally ≤5 occurrences or a total area of ≤ 100ha). Occurrences are believed to be under threat either due to limited extent, or being on lands under immediate threat (e.g., within agricultural or pastoral lands, urban areas, active mineral leases) or for which current threats exist. May include communities with occurrences on protected lands. 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 (P2)	Poorly-known Ecological Communities Communities that are known from few occurrences with a restricted distribution (generally ≤10 occurrences or a total area of ≤200ha). At least some occurrences are not believed to be under immediate threat (within approximately 10 years) 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 (P3)	Poorly-known Ecological Communities (i) 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: (ii) communities known from a few widespread occurrences, which are either large or with significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat (within approximately 10 years), or; (iii) communities made up of large, and/or widespread occurrences, that may or may 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, inappropriate fire regimes, clearing, hydrological change etc. 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.

Category	Definition
Priority 4 (P4)	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. (i) Rare. Ecological communities known from few occurrences that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These communities are usually represented on conservation lands. (ii) Near Threatened. Ecological communities that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for a higher threat category. (iii) Ecological communities that have been removed from the list of threatened communities during the past five years.
Priority 5 (P5)	Conservation Dependent Ecological Communities 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.

Any species or ecological communities that may be rare but for which there is insufficient information available to allocate a threatened status under the BC Act, can also be listed as Priority species by the WA Department of Biodiversity, Conservation and Attractions (DBCA)

Significant flora may extend beyond the assigned codes and in line with EPA (2016b) may include:

- Being identified as Threatened, Critically Endangered, Endangered, Vulnerable, Extinct or Extinct in the Wild species (State listed BC Act and/or commonwealth listed EPBC Act);
- Being listed as Priority flora species (DBCA, 2023b);
- Locally endemic or associated with a restricted habitat type (e.g., surface water or groundwater dependent ecosystems);
- New species or anomalous features that indicate a potential new species;
- Range extensions or representative of outer population extent (particularly at the extremes of range, recently discovered range extensions or isolated outliers of the main range);
- Unusual species; restricted subspecies, varieties, naturally occurring hybrids, or complex taxonomic groups; or
- Relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

Significant vegetation may extend beyond the assigned codes and in line with EPA (2016b) may include:

- Being identified as Threatened Ecological Community (TEC), Critically Endangered, Endangered, Vulnerable or Collapsed ecological community (State listed BC Act and/or commonwealth listed EPBC Act)
- Identified as a Priority Ecological Community (PEC) (DBCA, 2023a);
- Restricted or endemic distribution;
- Degree of historical impact from threatening processes (such as mining or agricultural);
- A role as a refuge for significant flora; or
- Providing an important function required to maintain ecological integrity of a significant ecosystem.

Introduced flora

Legal Status Definitions of Listed Plants in Western Australia

Legal status	Definition
Declared Pest, Prohibited – s12	Prohibited organisms are declared pests by virtue of section 22(1) and many only be imported and keep subject to permits
Declared Pest – s22(2)	Declared pests must satisfy any applicable import requirements when imported and may be subject to control keeping requirements
Permitted – s11	Permitted organisms must satisfy applicable import requirements and import permits (where required)
Permitted Requires Permit – r73	Regulation 73 permitted organisms may be subject to restriction under legislation other and the BAM Act (2007)
Unlisted	Unlisted organisms are prohibited in WA
Control Categories	**Definition**
C1 Exclusion	Organisms should be excluded from parts or all of WA
C2 Eradication	Organisms should be eradicated from all or parts of WA
C3 Management	Organisms should have some form of management applied that will alleviate the harmful impact of the organism, reduce the numbers or distribution of the organism or prevent or contain the spread of the organism
Unassigned	Declared pests that are recognised a having a harmful impact under certain circumstances where their subsequent control requirements are determined by a plan or other legislative arrangements under the Act
Keeping Categories	**Definition**
Prohibited Keeping	Can only be kept under a permit or public display, education or scientific purposes
Restricted Keeping	Kept under a permit by private individuals due to low risk of becoming a problem for the environment
Exempt Keeping	No permit or conditions are required for keeping. Organism may be subject to restrictions under the Wildlife Conservation Act (1950)

Appendix B: Literature review

Yandi Ministers North and Mining Area C (MAC)		Area C West to Yandi Flora and Vegetation Assessment	Mines, Port, Rail & NPI – Weed Mapping & Control – Area C, April 2017	Mines, Port, Rail &NPI – Weed Mapping & Control – Rail, June 2017	Ministers North Miscellaneous Licence Area Amendment Surveys and Yandicoogina Creek Detailed Flora and Vegetation Assessment	Ministers North to Yandi Corridor Single Phase Level 2 Fauna and Detailed Flora and Vegetation Survey
Survey Details	**Reference**	Astron (2018)	(Astron, 2017a)	Astron (2017b)	Biologic (2021)	Biologic (2017)
	Type	Detailed Flora and Vegetation	Weed mapping survey	Weed mapping survey	Detailed flora and vegetation assessment	Detailed Flora and Vegetation
	Client	BHP Billiton Iron Ore	BHP Billiton Iron Ore	BHP Billiton Iron Ore	BHP WAIO	BHP Billiton Iron Ore
	Location	Ministers North to Yandi Corridor	Area C Mine	Rail Network (Yandi and Mac corridor)	Ministers North, Yandi Creel	Ministers North to Yandi Corridor
	Size (ha)	2,025 ha	~ 117 ha	~ 340 ha	3,756	2,025 ha
	Timing	October 2017	April and June 2017	June 2017	September 2019, March-April 2020	October 2017
Methods	**Desktop Assessment (Yes/No)**	Yes	Yes	Yes	Yes	Yes
	Quadrat #	32	n/a	n/a	34	32
	Relevé #	n/a	n/a	n/a	6	n/a
	Targeted Searching (Yes/No)	Yes	Yes –weed species only (to record and chemically treat)	Yes –weed species only (to record and chemically treat)	Yes	Yes
	Other Methods	n/a	Weed mapping via field notes	Weed mapping via field notes	22 mapping notes	n/a
Results	**Taxa**	260	7	12	279	260
	Families	44	6	8	51	44
	Genera	127	7	12	141	127
	Vegetation Types	12	n/a	n/a	35	12
	Vegetation Condition	Very good to excellent	n/a	n/a	Degraded to excellent	Very good to excellent
	Weeds #	8	7	12	17	8
Significant Findings	**Threatened/ Priority Flora**	Three priority flora recorded: • *Rostellularia adscendens* var. *latifolia* (P3) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) • *Goodenia nuda* (P4)[1]	None recorded	None recorded	Five priority flora recorded: • *Aristida lazaridis (P3)* • *Fimbristylis sieberiana* (P3) • *Gymnanthera cunninghamii* (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4)	Three priority flora recorded: • *Rostellularia adscendens* var. *latifolia* (P3) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) • *Goodenia nuda* (P4)[1]
	TECs/ PECs	None recorded	None recorded	None recorded	PEC: Riparian flora and plant communities of springs and river pools with high water permanence of the Pilbara (P2)	None recorded
	WoNS and DPs	None recorded	None recorded	None recorded	None recorded	None recorded
	Range Extensions	None recorded	None recorded	None recorded	*Imperata cylindrica* *Dodonaea viscosa* subsp. *angustissima* *Triodia biflora*	None recorded
	Other significant findings	*Hibiscus* cf. *campanulatus* (potential P1)	**Aerva javanica* had previously not been recorded within the survey area by Astron	**Melinis repens* was a new weed species, previously not recorded within the corridor	Groundwater dependent vegetation and permanent pools	*Hibiscus* cf. *campanulatus* (potential P1)
Other	**Limitations of Survey**	None recorded	Insufficient time to survey all weeds of concern and restricted access	None recorded	Access restrictions, recent fires	No substantial limitations
	Proximity	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area

[1] *Goodenia nuda* (P4) is no longer a priority taxon

Yandi Ministers North and Mining Area C (MAC)		Ministers North Detailed Flora and Vegetation Survey	Two Phase Assessment of the Flora and Vegetation of the Proposed Marillana Creek (Yandi) Mine extension Areas	Yandi Mine Extension RGP5 - EIA Flora Survey Interim Report Post Phase 1 Survey	Rapid Growth Project 5: M270SA Flora and Vegetation Assessment	Flora and Vegetation Survey – Yandi Lease M47/292 and E4 Drill Lines
Survey Details	**Reference**	Biota (2017)	Ecologia (2008)	Ecologia (2007)	ENV (2008b)	Maunsell Australia (2004)
	Type	Detailed flora and vegetation	Detailed flora and vegetation	Detailed flora and vegetation Interim review	Detailed	Targeted vegetation and flora
	Client	BHP Billiton Iron Ore	BHP Billon Iron Ore	BHP Billiton Iron Ore	Calibre Engenium Joint Venture	BHP Billiton Iron Ore
	Location	Ministers North	Yandi	Yandi Mine Extension RGP5	Mining Lease M270SA	Yandi M47/292 Lease & E4 Drill Lines
	Size (ha)	~ 3,030 ha	3 polygons of approx. 2,400 ha	~2,400 ha	106 ha	~ 13,160 ha
	Timing	September 2016, May and July 2017	November 2007 and March 2008	November 2007	April 2008	December 2003
Methods	**Desktop Assessment (Yes/No)**	Yes	Yes	Yes	Yes	Yes
	Quadrat #	22	102	60	7	n/a
	Relevé #	15	n/a	n/a	1	n/a
	Targeted Searching (Yes/No)	Yes	Yes	Yes	Yes	Yes
	Other Methods	Opportunistic collections	Opportunistic collections	Opportunistic collections	n/a	Opportunistic collections
Results	**Taxa**	361	333	212	114	n/a
	Families	53	52	38	30	n/a
	Genera	142	138	93	58	n/a
	Vegetation Types	10	10	n/a	5	7
	Vegetation Condition	Pristine to completely degraded	Not specified	n/a	Very good to poor	Good to excellent
	Weeds #	16	10	4	3	n/a
Significant Findings	**Threatened/ Priority Flora**	Three priority flora recorded: • *Fimbristylis sieberiana* (P3) • *Acacia bromilowiana* (P4) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4)	Recorded one species (*Tephrosia* sp. Cathedral Gorge (F.H. Mollemans 2420)) which is no longer of conservation significance	None recorded	None recorded	One previously listed priority species (*Olearia fluvialis*)
	TECs/ PECs	None recorded	None recorded	None recorded	None recorded	None recorded
	WoNS and DPs	None recorded	None recorded	None recorded	None recorded	None recorded
	Range Extensions	*Imperata cylindrica*	*Paspalidium reflexum* *Melaleuca leucadendra*	None recorded	None recorded	None recorded
	Other significant findings	*Peripleura hispidula* var. *hispidula*	*Sida* sp. – possible new species as could not be identified beyond genus level Flowering specimen of *Maytenus* sp. Mt Windell (S. van Leeuwen 846) to be used to write a formal description of this taxon	None recorded	Quite high species richness for the small size of the survey area (106 ha)	None recorded
Othe	**Limitations of Survey**	Three vegetation associations are considered to be of local importance	Access issues	Recent fires in the area	No substantial limitations	Sub-optimal survey timing
	Proximity	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area

Yandi Ministers North and Mining Area C (MAC)		Ministers North and Yandi Vegetation Association and Condition Mapping	Mining Area C Review of Flora and Vegetation Baseline Information	Flora and Vegetation Review – Yandi ML 270SA	Area C and Surrounds Study Area Level 2 Flora and Vegetation Survey	Area C to Jinayri to Mount Newman Railway Flora and Vegetation Survey
Survey Details	**Reference**	Onshore (2020)	Onshore (2014)	Onshore (2011a)	Onshore (2011b)	Woodman (2010)
	Type	Desktop assessment	Desktop Review	Reconnaissance and desktop	Detailed flora and vegetation	Detailed flora and vegetation
	Client	BHP Billiton Iron Ore	BHP Billiton Iron Ore	BHP Billiton Iron Ore	BHP Billiton Iron Ore	BHP Billiton Iron Ore
	Location	Ministers North & Yandi	Mining Area C	Yandi	Area C and Surrounds	Area C to Jinayri and Mt Newman Railway
	Size (ha)	~ 19,300 ha	~ 25,815 ha	~ 13,210 ha	29,411 ha	~ 19,020 ha
	Timing	June 2020	2008	December 2010	November and December 2009, and February and June 2010	May, June, and September 2009
Methods	**Desktop Assessment (Yes/No)**	Yes	Yes	Yes	Yes	Yes
	Quadrat #	n/a	n/a	Desktop review of 210 quadrats	510	203
	Relevé #	n/a	n/a	115	n/a	n/a
	Targeted Searching (Yes/No)	n/a	n/a	Yes	Yes	Yes
	Other Methods	n/a	n/a	n/a	Weed Survey and Mapping	n/a
Results	**Taxa**	n/a	n/a	452	497	379
	Families	n/a	n/a	56	53	53
	Genera	n/a	n/a	178	166	149
	Vegetation Types	40	28	24	37	19
	Vegetation Condition	Completely degraded to excellent	n/a	Good to excellent	Degraded to excellent	Good to excellent
	Weeds #	n/a	10	21	11	10
Significant Findings	**Threatened/ Priority Flora**	*Fimbristylis sieberiana* (P3)	Seven priority flora recorded: • *Acacia bromilowiana* (P4) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Aristida lazaridis (P3)* • *Eremophila magnifica* subsp. *magnifica* (P4) • *Nicotiana umbratica* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Rostellularia adscendens* var. *latifolia* (P3)	Five priority flora recorded: • *Acacia subtiliformis* (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Goodenia nuda* (P4)[1] • *Isotropis parviflora* (P2) • *Lepidium catapycnon* (P4)	Eleven priority flora recorded: • *Aristida jerichoensis* subsp. *subspinulifera* (P1) • *Aristida lazaridis (P3)* • *Acacia subtiliformis* (P3) • *Fimbristylis sieberiana* (P3) • *Goodenia* sp. East Pilbara (A.A. Mitchell PRP 727) (P3) • *Nicotiana umbratica* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) • *Eremophila magnifica* subsp. *magnifica* (P4) • *Lepidium catapycnon* (P4)	Eight priority flora recorded: • *Acacia subtiliformis* (P3) • *Fimbristylis sieberiana* (P3) • *Goodenia* sp. East Pilbara (A.A. Mitchell PRP 727) (P3) • *Stylidium weeliwolli* (P3) • *Goodenia nuda* (P4)[1] • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Lepidium catapycnon* (P4)
	TECs/ PECs	None recorded	None recorded	None recorded	PEC: Weeli Wolli Spring Community (P1)	None recorded
	WoNS and DPs	None recorded	None recorded	None recorded	None recorded	None recorded
	Range Extensions	None recorded	None recorded	None recorded	12 taxa represent extensions	Three locality holes and one range extension (*Halgania cyanea* var. Allambi Stn (B.W. Strong 676), 100 km north)

Yandi Ministers North and Mining Area C (MAC)		Ministers North and Yandi Vegetation Association and Condition Mapping	Mining Area C Review of Flora and Vegetation Baseline Information	Flora and Vegetation Review – Yandi ML 270SA	Area C and Surrounds Study Area Level 2 Flora and Vegetation Survey	Area C to Jinayri to Mount Newman Railway Flora and Vegetation Survey
	Other significant findings	Feature of vegetation association MA EcrEvMa AcpAamAthe TydCyv is the occurrence of semi-permanent and/or permanent water bodies, and contains species, *Fimbristylis sieberiana* (P3)	None	The Priority 1 PEC Weeli Wolli Spring occurs approximately 9 km south-east of the Yandi Study area, but did not occur within the desktop survey area	None	One undescribed and potentially conservation significant flora species recorded, described as *Grevillea* aff. *nematophylla*
Other	**Limitations of Survey**	Four vegetation associations noted as being potentially significant	No substantial limitations	None recorded	Recent fire in the area	Some access issues
	Proximity	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area

[1] *Goodenia nuda* (P4) is no longer a priority taxon

Yandi Ministers North and Mining Area C (MAC)		Marillana Creek Riparian Flora and Vegetation Survey	Area C Mining Operations Environmental Management Plan (Revision 4) A, D, P1 and P3 Deposits Flora and Vegetation assessment
Survey Details	**Reference**	Onshore (2015)	Woodman (2009)
	Type	Detailed flora and vegetation	Detailed flora and vegetation and gaps analysis
	Client	BHP Billiton Iron Ore	BHP Billiton Iron Ore
	Location	Marillana Creek	Area C
	Size (ha)	~1,028 ha	~ 17,800 ha
	Timing	June 2015	April, May and June 2008
Methods	**Desktop Assessment (Yes/ No)**	Yes	Yes
	Quadrat #	40	62
	Relevé #	237	n/a
	Targeted Searching (Yes/No)	Yes	Yes
	Other Methods	n/a	n/a
Results	**Taxa**	399	262
	Families	58	44
	Genera	186	120
	Vegetation Types	22	15
	Vegetation Condition	Degraded to excellent	Pristine to excellent
	Weeds #	22	5
Significant Findings	**Threatened/ Priority Flora**	Six priority flora recorded: • *Aristida lazaridis* (P3) • *Ipomoea racemigera* (P3) • *Amaranthus centralis* (P3) • *Goodenia* sp. East Pilbara (A.A. Mitchell PRP 727) (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Goodenia nuda* (P4)[1]	Three priority flora recorded: • *Eremophila magnifica* subsp. *magnifica* (P4) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Rostellularia adscendens* var. *latifolia* (P3)
	TECs/ PECs	None recorded	None recorded
	WoNS and DPs	None recorded	None recorded
	Range Extensions	None recorded	None recorded
	Other significant findings	None recorded	None recorded
Other	**Limitations of Survey**	No substantial limitations	No substantial limitations
	Proximity	> 10 km N	> 10 km NW

[1] *Goodenia nuda* (P4) is no longer a priority taxon

Mudlark Well		Level 2 Flora and Vegetation Survey Mudlark Leases	Alligator Jaws Exploration Lease Flora and Vegetation Assessment
Survey Details	**Reference**	Onshore (2013a)	(ENV, 2008a)
	Type	Detailed	Detailed
	Client	BHP Billiton Iron Ore	BHP Billiton Iron Ore
	Location	Mudlark Leases	Alligator Jaws Exploration Lease
	Size (ha)	Not specified	~ 2,035 ha
	Timing	2011 – 2012 (over 5 months)	July 2007
Methods	**Desktop Assessment (Yes/No)**	Yes	Yes
	Quadrat #	259	46
	Relevé #	n/a	n/a
	Targeted Searching (Yes/No)	Yes	Yes
	Other Methods	Vegetation mapping notes and opportunistic collections	Traversing of proposed drill pads
Results	**Taxa**	534	264
	Families	61	48
	Genera	191	109
	Vegetation Types	38	10
	Vegetation Condition	Very good to excellent	Good to excellent
	Weeds #	12	5
Significant Findings	**Threatened/ Priority Flora**	24 species including three Priority 1 taxa, three Priority 2 species, 13 Priority 3 taxa, and five Priority 4 taxa	One priority flora recorded: • *Eremophila magnifica* subsp. *magnifica* (P4)
	TECs/ PECs	None recorded	None recorded
	WoNS and DPs	None recorded	None recorded
	Range Extensions	None recorded	None recorded
	Other significant findings	n/a	n/a
No substantial limitations	**Limitations of Survey**	None recorded	No substantial limitations
	Proximity	Intersecting the Study Area	60 km WSW

CPH surrounds		Summary of Important Findings from Rapid Growth Project 5 Railway Project – Biological Assessments	Flora and Vegetation on the Hope Downs 4 Mine and Infrastructure Corridor	Level 2 Flora and Vegetation Survey – South Flank	Coondewanna Flats Flora and Vegetation Assessment	Flora and Vegetation Survey, Jinidi to Mainline Study Area
Survey Details	**Reference**	ENV (2008c)	Mattiske (2008)	Onshore (2012b)	Astron (2011)	Onshore (2012a)
	Type	Detailed flora and vegetation	Detailed flora and vegetation	Detailed flora and vegetation	Detailed flora and vegetation	Detailed flora and vegetation
	Client	Calibre Engenium Joint Venture	Pilbara Iron	BHP Billiton Iron Ore	BHP Billiton Iron Ore	BHP Billiton Iron Ore
	Location	Rapid Growth Project 5 Railway Project	Hope Downs 4 Infrastructure Corridor	South Flank	Coondewanna Flats	Jinidi
	Size (ha)	~ 31,110 ha	~29,700 ha	18,627 ha	6,756 ha	n/a
	Timing	April 2008	April, May & September 2008	March, April, May and September 2010, and June 2011	September 2010 and May 2011	February, March, April and September 2011
Methods	**Desktop Assessment (Yes/No)**	Yes	Yes	Yes	Yes	Yes
	Quadrat #	141	139	220	40	395
	Relevé #	18	n/a	n/a	3	n/a
	Targeted Searching (Yes/No)	Yes	Yes	Yes	Yes	Yes
	Other Methods	n/a	Foot and vehicle traverses	Opportunistic collections/records	Opportunistic collections	Weed Survey and Mapping
Results	**Taxa**	n/a	392	386	308	471
	Families	n/a	54	50	48	59
	Genera	n/a	155	160	132	178
	Vegetation Types	n/a	25	34	17	28
	Vegetation Condition	Completely Degraded to very good	Degraded to good	Degraded to excellent	Good to excellent	Degraded to excellent
	Weeds #	10	9	8	6	20
Significant Findings	**Threatened/ Priority Flora**	One priority flora recorded: • *Rostellularia adscendens* var. *latifolia* (P3)	Four priority flora recorded: • *Eremophila forrestii* subsp. *viridis* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Stylidium weeliwolli* (P3) • *Eremophila youngii* subsp. *lepidota* (P4)	14 priority flora recorded: • *Aristida lazaridis (P3)* • *Pilbara trudgenii* (P2) • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Dampiera metallorum* (P3) • *Grevillea saxicola* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Sida* sp. Barlee Range (S van Leeuwen 1642) (P4) • *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3) • *Triodia* sp. Mt. Ella (ME Trudgen 12739) (P3) • *Acacia bromilowiana* (P4) • *Lepidium catapycnon* (P4) • *Eremophila magnifica* subsp. *magnifica* (P4) • *Ptilotus mollis* (P4)	Four priority flora recorded: • *Aristida lazaridis* (P3) • *Goodenia nuda* (P4)[1] • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3)	Five priority flora recorded:

CPH surrounds		Summary of Important Findings from Rapid Growth Project 5 Railway Project – Biological Assessments	Flora and Vegetation on the Hope Downs 4 Mine and Infrastructure Corridor	Level 2 Flora and Vegetation Survey – South Flank	Coondewanna Flats Flora and Vegetation Assessment	Flora and Vegetation Survey, Jinidi to Mainline Study Area
	TECs/ PECs	None recorded	None recorded	PEC: Coolibah-lignum flats: Eucalyptus victrix over Muehlenbeckia florulenta • Coolibah woodland over Lignum over Swamp Wandiree (Eriachne benthamii) (P1) • Coolibah and Mulga (*Acacia aneura*) woodland over Lignum and tussock grasses on clay plains (P3)	P1 PEC sub-type "Coolibah woodlands over lignum (Muehlenbeckia florulenta) over swamp wanderrie" P3 PEC sub-type "Coolibah and Mulga (*Acacia aneura*) woodland over lignum and tussock grasses on clay plains"	PECs • Weeli Wolli Spring Community (P1) • Vegetation of sand dunes of the Hamersley Range/Fortescue Valley (previously 'Fortescue Valley Sand Dunes') (P3)
	WoNS and DPs	None recorded	None recorded	None recorded	None recorded	None recorded
	Range Extensions	None recorded	*Atriplex vesicaria* *Eucalyptus? sheathiana* *Frankenia? magnifica* *Sclerolaena eriacantha*	**Stylosanthes hamata*	None recorded	None recorded
	Other significant findings	None recorded	None recorded	None recorded	12 vegetation associations analogous to 'Ecosystems at Risk' for the broader Pilbara, including Valley floor Mulga, Hill-top floras of the Hamersley Range, and one major ephemeral watercourse.	None recorded
No substantial limitations	**Limitations of Survey**	No substantial limitations	Recent fires in the area Some access limitations	Poor seasonal conditions	Sub-optimal seasonal conditions prior to the survey, some access issues	No substantial limitations
	Proximity	Intersecting the Study Area	Intersecting the Study Area	Intersecting the Study Area	Adjacent to the north of Mudlark Well	11 km E

[1] *Goodenia nuda* (P4) is no longer a priority taxon

CPH surrounds		UMC Area A and Additional Areas: Vegetation and Flora Survey	Targeted Survey for Lepidium catapycnon at Karijini National Park	Fibre Optic Cable Flora and Fauna Assessment
Survey Details	**Reference**	Ecologia (2009)	Onshore (2013b)	AECOM (2020)
	Type	Detailed flora and vegetation	Targeted flora	Reconnaissance flora and vegetation
	Client	United Minerals Corporation NL	BHP Billiton Iron Ore	Pilbara Iron
	Location	Tenement E47/1429	Karijini National Park	Fibre Optic Cable north of West Angelas mine
	Size (ha)	~3,310 ha	n/a	21.7 ha
	Timing	May & September 2008	November 2011	November 2019
Methods	**Desktop Assessment (Yes/No)**	Yes	Yes	Yes
	Quadrat #	132	n/a	n/a
	Relevé #	n/a	n/a	8
	Targeted Searching (Yes/No)	Yes	Yes	Yes
	Other Methods	Opportunistic collections	n/a	Opportunistic collections/records
Results	**Taxa**	353	n/a	52
	Families	47	n/a	18
	Genera	145	n/a	30
	Vegetation Types	6	n/a	4
	Vegetation Condition	Poor to excellent	n/a	Excellent
	Weeds #	11	n/a	0
Significant Findings	**Threatened/ Priority Flora**	Four priority flora recorded: • *Aristida jerichoensis* var. *subspinulifera* (P3) • *Rostellularia adscendens* var. *latifolia* (P3) • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3) • *Goodenia nuda* (P4)[1]	Eight populations of *Lepidium catapycnon* (P4) from 42 point locations	One priority flora recorded: • *Rhagodia* sp. Hamersley (M. Trudgen 17794) (P3)
	TECs/ PECs	None recorded	None recorded	None recorded
	WoNS and DPs	None recorded	None recorded	None recorded
	Range Extensions	None recorded	None recorded	None recorded
	Other significant findings	None recorded	None recorded	None recorded
Other	**Limitations of Survey**	No substantial limitations	No substantial limitations	Not ideal survey timing
	Proximity	25 km W	75 km W	100 km W

[1] *Goodenia nuda* (P4) is no longer a priority taxon

Appendix C: Database search results

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Acanthaceae	*Dicladanthera forrestii*	x	x	x								
	Dicladanthera glabra	x	x						P2			
	Dipteracanthus australasicus		x									
	Dipteracanthus australasicus subsp. *australasicus*	x		x								
	Dipteracanthus australasicus subsp. *corynothecus*	x										
	Harnieria kempeana		x	x								
	Harnieria kempeana subsp. *muelleri*	x										
	Rostellularia adscendens	x	x									
	Rostellularia adscendens var. *latifolia*	x		x	x				P3			
Aizoaceae	*Trianthema glossostigmum*	x	x									
	Trianthema pilosum	x	x									
	Trianthema triquetrum		x									
	Trianthema turgidifolium		x									
Alismataceae	*Sagittaria platyphylla*							x				Y
Amaranthaceae	*Achyranthes aspera*		x	x								
	Aerva javanica	x	x	x								Y
	Alternanthera denticulata var. *denticulata*	x	x	x								
	Alternanthera nana	x	x	x								
	Alternanthera nodiflora	x		x								
	Alternanthera pungens		x									Y
	Amaranthus centralis	x	x		x				P3			
	Amaranthus cochleitepalus	x	x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Amaranthaceae cont.	*Amaranthus cuspidifolius*	x	x	x								
	Amaranthus interruptus	x		x								
	Amaranthus mitchellii	x	x	x								
	Amaranthus undulatus	x	x	x								
	Gomphrena affinis		x									
	Gomphrena canescens	x	x									
	Gomphrena canescens subsp. *canescens*	x		x								
	Gomphrena cunninghamii	x	x	x								
	Gomphrena kanisii	x	x	x								
	Gomphrena lanata		x									
	Gomphrena sordida		x									
	Ptilotus aervoides	x	x	x								
	Ptilotus arthrolasius		x									
	Ptilotus astrolasius	x	x	x								
	Ptilotus auriculifolius	x	x	x								
	Ptilotus calostachyus	x	x	x								
	Ptilotus carinatus	x	x									
	Ptilotus clementii	x	x	x								
	Ptilotus decipiens	x	x									
	Ptilotus drummondii	x	x									
	Ptilotus exaltatus	x	x	x								
	Ptilotus fusiformis	x	x	x								
	Ptilotus gaudichaudii	x	x	x								
	Ptilotus gomphrenoides	x	x									
	Ptilotus helipteroides	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Amaranthaceae cont.	*Ptilotus incanus*	x	x	x								
	Ptilotus mollis	x	x	x	x				P4			
	Ptilotus obovatus	x	x	x								
	Ptilotus polystachyus	x	x	x								
	Ptilotus roei	x	x	x								
	Ptilotus rotundifolius	x	x	x								
	Ptilotus schwartzii	x	x									
	Ptilotus schwartzii var. *schwartzii*	x		x								
	Ptilotus xerophilus		x	x								
Apiaceae	*Cyclospermum leptophyllum*	x	x									Y
	Daucus glochidiatus	x	x									
Apocynaceae	*Calotropis procera*							x				Y
	Catharanthus roseus		x									Y
	Cryptostegia madagascariensis							x				Y
	Cynanchum floribundum	x	x	x								
	Cynanchum pedunculatum	x	x									
	Cynanchum viminale		x									
	Cynanchum viminale subsp. *australe*	x		x								
	Gymnanthera cunninghamii	x	x	x	x				P3			
	Leichhardtia australis	x	x	x								
	Vincetoxicum flexuosum		x	x								
	Vincetoxicum lineare	x	x	x								
Araceae	*Pistia stratiotes*							x				Y
	Zantedeschia aethiopica							x				Y

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Araliaceae	*Astrotricha hamptonii*	x	x	x								
	Hydrocotyle ranunculoides							x				Y
	Trachymene oleracea	x	x	x								
	Trachymene oleracea subsp. *oleracea*	x		x								
	Trachymene pilbarensis	x	x									
Arecaceae	*Phoenix dactylifera*		x									Y
Asparagaceae	*Arthropodium vanleeuwenii*	x			x				P2			
	Asparagus asparagoides							x				Y
	Thysanotus exiliflorus	x	x									
	Thysanotus manglesianus	x	x									
	Thysanotus sp. Eremaean (S. van Leeuwen 1067)	x	x									
Asphodelaceae	*Bulbine pendula*	x	x									
Asteraceae	*Angianthus tomentosus*		x									
	Apowollastonia hamersleyensis	x	x									
	Bidens bipinnata	x	x	x								Y
	Bidens pilosa var. *pilosa*		x									Y
	Bidens subalternans var. *simulans*	x										
	Blumea tenella	x	x	x								
	Brachyscome ciliaris	x	x									
	Brachyscome iberidifolia		x	x								
	Calocephalus beardii	x	x									
	Calocephalus francisii	x	x									
	Calocephalus knappii	x	x									
	Calocephalus multiflorus	x	x	x								
	Calocephalus pilbarensis	x	x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Asteraceae cont.	*Calotis hispidula*	x	x	x								
	Calotis latiuscula		x	x								
	Calotis multicaulis	x	x									
	Calotis plumulifera	x	x	x								
	Calotis porphyroglossa	x	x									
	Calotis squamigera		x		x				P1			
	Centipeda crateriformis subsp. *crateriformis*			x								
	Centipeda minima		x	x								
	Centipeda minima subsp. *macrocephala*	x		x								
	Centipeda minima subsp. *minima*	x										
	Centipeda thespidioides	x	x									
	Chondrilla juncea							x				Y
	Chrysocephalum apiculatum		x	x								
	Chrysocephalum apiculatum subsp. *pilbarense*	x		x								
	Chrysocephalum gilesii	x	x	x								
	Chrysocephalum pterochaetum	x	x	x								
	Dichromochlamys dentatifolia	x	x									
	Erigeron bonariensis	x	x	x								Y
	Flaveria trinervia	x	x	x								Y
	Gnephosis arachnoidea	x	x	x								
	Gnephosis brevifolia		x									
	Iotasperma sessilifolium	x	x		x				P3			
	Ixiochlamys cuneifolia	x	x									
	Lactuca saligna		x									Y

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Asteraceae cont.	*Lactuca serriola*	x	x	x								Y
	Lactuca serriola forma *serriola*	x										
	Leiocarpa semicalva	x	x									
	Leiocarpa semicalva subsp. *semicalva*	x		x								
	Leiocarpa tomentosa	x	x									
	Minuria leptophylla	x	x									
	Myriocephalus oldfieldii	x	x	x								
	Olearia fluvialis	x	x	x								
	Olearia mucronata	x	x	x	x	x			P3			
	Olearia plucheacea		x									
	Olearia stuartii	x	x	x								
	Olearia xerophila	x	x	x								
	Onopordum acaulon							x				Y
	Pentalepis trichodesmoides		x									
	Pentalepis trichodesmoides subsp. *hispida*				x				P2			
	Peripleura arida	x	x	x								
	Peripleura obovata	x	x	x								
	Peripleura virgata	x	x	x								
	Pilbara trudgenii	x	x	x	x	x			P3			
	Pluchea dentex	x	x	x								
	Pluchea dunlopii		x	x								
	Pluchea ferdinandi-muelleri	x	x									
	Pluchea rubelliflora		x	x								
	Pluchea tetranthera			x								
	Podolepis eremaea	x	x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Asteraceae cont.	*Podolepis remota*	x	x									
	Pseudognaphalium luteoalbum	x	x	x								
	Pterocaulon serrulatum		x	x								
	Pterocaulon serrulatum var. *velutinum*	x		x								
	Pterocaulon sphacelatum	x	x	x								
	Pterocaulon sphaeranthoides	x	x	x								
	Rhodanthe ascendens	x	x		x	x			P1			
	Rhodanthe cf. *margarethae*			x								
	Rhodanthe charsleyae	x	x	x								
	Rhodanthe citrina	x	x									
	Rhodanthe floribunda	x	x	x								
	Rhodanthe frenchii	x	x						P2			
	Rhodanthe humboldtiana	x	x									
	Rhodanthe margarethae	x	x	x								
	Rhodanthe polakii	x	x									
	Rhodanthe propinqua	x	x	x								
	Rhodanthe sterilescens	x	x	x								
	Roebuckiella ciliocarpa		x	x								
	Roebuckiella oncocarpa		x									
	Roebuckiella similis	x	x	x								
	Rutidosis helichrysoides	x	x	x								
	Rutidosis helichrysoides subsp. *helichrysoides*	x		x								
	Schoenia ayersii	x	x									
	Schoenia cassiniana	x	x									
	Senecio hamersleyensis	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Asteraceae cont.	*Senecio magnificus*	x	x									
	Senecio pinnatifolius		x									
	Sigesbeckia orientalis	x	x	x								Y
	Silybum marianum							x				Y
	Sonchus hydrophilus		x									
	Sonchus oleraceus		x	x								Y
	Streptoglossa adscendens	x	x									
	Streptoglossa bubakii	x	x	x								
	Streptoglossa cylindriceps	x	x									
	Streptoglossa decurrens	x	x	x								
	Streptoglossa liatroides			x								
	Streptoglossa odora	x	x									
	Streptoglossa sp. Cracking clays (S. van Leeuwen *et al.* PBS 7353)				x				P3			
	Streptoglossa tenuiflora	x	x									
	Symphyotrichum squamatum	x	x									Y
	Taplinia saxatilis	x	x									
	Taraxacum khatoonae	x	x									Y
	Tridax procumbens	x	x	x								Y
	Vittadinia dissecta		x									
	Vittadinia dissecta var. *hirta*	x		x								
	Vittadinia eremaea	x	x									
	Vittadinia sp. Coondewanna Flats (S. van Leeuwen 4684)	x	x	x	x	x			P3			
	Xanthium spinosum							x				Y
	Xanthium strumarium							x				Y
	Xerochrysum boreale	x	x		x				P3			

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Asteraceae cont.	*Xerochrysum interiore*	x	x	x								
	Xerochrysum macranthum		x									
Bignoniaceae	*Pandorea doratoxylon*	x	x	x								
Boraginaceae	*Echium plantagineum*							x				Y
	Ehretia saligna		x	x								
	Euploca chrysocarpa	x	x									
	Euploca conocarpa		x									
	Euploca cunninghamii	x	x	x								
	Euploca glabella		x									
	Euploca heterantha	x	x	x								
	Euploca inexplicita	x	x	x								
	Euploca ovalifolia		x									
	Euploca pachyphylla	x	x									
	Euploca skeleton		x									
	Euploca tenuifolia		x	x								
	Euploca ventricosa	x	x									
	Halgania cyanea	x	x									
	Halgania cyanea var. Allambi Stn (B.W. Strong 676)	x										
	Halgania gustafsenii	x	x									
	Halgania gustafsenii var. *gustafsenii*	x		x								
	Halgania gustafsenii var. Mid West (G. Perry 370)	x		x								
	Halgania solanacea		x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Boraginaceae cont.	*Halgania solanacea* var. Mt Doreen (G.M. Chippendale 4206)	x										
	Heliotropium crispatum	x	x									
	Trichodesma zeylanicum	x	x	x								
	Trichodesma zeylanicum var. *zeylanicum*			x								
Brassicaceae	*Cuphonotus andraeanus*	x	x	x								
	Lepidium catapycnon	x	x	x	x	x			P4			
	Lepidium echinatum	x	x	x								
	Lepidium muelleri-ferdinandii	x	x	x								
	Lepidium oxytrichum	x	x	x								
	Lepidium pedicellosum	x	x	x								
	Lepidium phlebopetalum	x	x	x								
	Lepidium pholidogynum	x	x	x								
	Lepidium platypetalum		x	x								
	Menkea villosula	x	x									
	Sisymbrium orientale			x								
	Stenopetalum anfractum	x	x	x								
	Stenopetalum decipiens	x	x									
	Stenopetalum nutans	x	x	x								
	Stenopetalum pedicellare	x	x	x								
	Stenopetalum velutinum	x	x									
Cactaceae	*Austrocylindropuntia cylindrica*							x				Y
	Austrocylindropuntia subulata							x				Y
	Cylindropuntia fulgida							x				Y
	Cylindropuntia imbricata							x				Y
	Cylindropuntia kleiniae							x				Y

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Cactaceae cont.	*Cylindropuntia pallida*							x				Y
	Cylindropuntia tunicata							x				Y
	Opuntia elata							x				Y
	Opuntia elatior							x				Y
	Opuntia engelmannii							x				Y
	Opuntia ficus-indica							x				Y
	Opuntia microdasys							x				Y
	Opuntia monacantha							x				Y
	Opuntia polyacantha							x				Y
	Opuntia puberula							x				Y
	Opuntia stricta							x				Y
	Opuntia tomentosa							x				Y
Campanulaceae	*Isotoma petraea*	x	x									
	Lobelia arnhemiaca	x	x									
	Lobelia heterophylla	x	x									
	Lobelia heterophylla subsp. *heterophylla*	x										
	Lobelia heterophylla subsp. *pilbarensis*	x		x								
	Wahlenbergia caryophylloides		x									
	Wahlenbergia gracilenta	x	x	x								
	Wahlenbergia tumidifructa	x	x	x								
Capparaceae	*Capparis lasiantha*	x	x	x								
	Capparis mitchellii	x	x	x								
	Capparis spinosa	x	x	x								
	Capparis umbonata	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Caryophyllaceae	*Polycarpaea corymbosa*	x	x	x								
	Polycarpaea corymbosa var. *corymbosa*	x		x								
	Polycarpaea holtzei	x	x	x								
	Polycarpaea longiflora	x	x	x								
Celastraceae	*Maytenus* sp. Mt Windell (S. van Leeuwen 846)	x	x	x								
	Stackhousia clementii	x	x		x				P3			
	Stackhousia intermedia	x	x	x								
	Stackhousia muricata	x	x	x								
	Stackhousia muricata subsp. *annual (W.R. Barker 2172)*	x										
	Stackhousia sp. swollen gynophore (W.R. Barker 2041)	x	x	x								
Chenopodiaceae	*Atriplex amnicola*		x									
	Atriplex bunburyana		x									
	Atriplex codonocarpa		x									
	Atriplex flabelliformis		x		x				P3			
	Atriplex lindleyi		x									
	Chenopodium auricomum	x	x									
	Chenopodium gaudichaudianum			x								
	Dissocarpus paradoxus	x	x									
	Dysphania congestiflora				x				P3			
	Dysphania glomulifera		x									
	Dysphania glomulifera subsp. *eremaea*	x		x								
	Dysphania kalpari	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Chenopodiaceae cont.	*Dysphania melanocarpa*	x	x	x								
	Dysphania melanocarpa forma *leucocarpa*	x										
	Dysphania melanocarpa forma *melanocarpa*	x										
	Dysphania plantaginella			x								
	Dysphania rhadinostachya	x	x	x								
	Dysphania rhadinostachya subsp. *inflata*	x										
	Dysphania rhadinostachya subsp. *rhadinostachya*	x		x								
	Dysphania saxatilis		x	x								
	Enchylaena tomentosa	x	x									
	Enchylaena tomentosa var. *tomentosa*			x								
	Maireana carnosa	x	x									
	Maireana georgei	x	x	x								
	Maireana luehmannii		x									
	Maireana melanocoma		x									
	Maireana planifolia	x	x	x								
	Maireana planifolia x *villosa*	x										
	Maireana platycarpa		x									
	Maireana pyramidata		x									
	Maireana thesioides	x	x									
	Maireana tomentosa			x								
	Maireana triptera	x	x	x								
	Maireana villosa	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Chenopodiaceae cont.	*Rhagodia eremaea*	x	x	x								
	Rhagodia preissii	x	x									
	Rhagodia sp. Hamersley (M. Trudgen 17794)	x	x	x	x	x			P3			
	Salsola australis	x	x	x								
	Sclerolaena burbidgeae		x									
	Sclerolaena convexula	x	x	x								
	Sclerolaena cornishiana	x	x	x								
	Sclerolaena costata	x	x	x								
	Sclerolaena cuneata		x									
	Sclerolaena densiflora		x									
	Sclerolaena deserticola	x	x									
	Sclerolaena diacantha		x									
	Sclerolaena eriacantha	x	x									
	Sclerolaena lanicuspis		x									
	Sclerolaena tetragona	x	x	x								
	Tecticornia auriculata		x									
	Tecticornia disarticulata		x									
	Tecticornia globulifera				x	x			P1			
	Tecticornia halocnemoides		x									
	Tecticornia indica		x									
	Tecticornia medusa		x		x				P3			
	Tecticornia sp. Christmas Creek (K.A. Shepherd & T. Colmer *et al.* KS 1063)				x				P1			
	Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)		x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Cleomaceae	*Areocleome oxalidea*	x	x									
	Arivela viscosa	x	x	x								
Commelinaceae	*Commelina ensifolia*	x	x	x								
Convolvulaceae	*Bonamia erecta*	x	x	x								
	Bonamia media	x	x	x								
	Bonamia pilbarensis	x	x	x								
	Bonamia rosea	x	x	x								
	Convolvulus clementii	x	x	x								
	Convolvulus remotus		x	x								
	Cuscuta victoriana	x	x									
	Distimake dissectus		x									Y
	Duperreya commixta	x	x	x								
	Evolvulus alsinoides	x	x	x								
	Evolvulus alsinoides var. *decumbens*			x								
	Evolvulus alsinoides var. *villosicalyx*	x		x								
	Ipomoea calobra		x									
	Ipomoea lonchophylla	x	x									
	Ipomoea muelleri	x	x	x								
	Ipomoea plebeia	x	x	x								
	Ipomoea polymorpha	x	x									
	Ipomoea racemigera	x	x		x				P3			
	Operculina aequisepala		x									
	Polymeria ambigua	x	x	x								
	Polymeria calycina	x		x								
	Polymeria lanata	x	x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Convolvulaceae cont.	*Polymeria longifolia*	x	x									
	Polymeria mollis		x	x								
Crassulaceae	*Crassula peduncularis*	x	x									
	Crassula tetramera		x									
Cucurbitaceae	*Austrobryonia pilbarensis*	x	x									
	Citrullus amarus	x	x	x								Y
	Citrullus colocynthis			x								
	Coccinia grandis							x				Y
	Cucumis melo	x	x	x								
	Cucumis myriocarpus		x	x								Y
	Cucumis myriocarpus subsp. *myriocarpus*	x										
	Cucumis picrocarpus	x	x									
	Cucumis variabilis	x	x	x								
Cupressaceae	*Callitris columellaris*	x	x	x								
Cyperaceae	*Bulbostylis barbata*	x	x	x								
	Bulbostylis turbinata	x	x									
	Cladium procerum		x		x				P2			
	Cyperus bifax	x	x	x								
	Cyperus bulbosus	x	x									
	Cyperus cunninghamii	x	x	x								
	Cyperus cunninghamii subsp. *cunninghamii*	x		x								
	Cyperus dactylotes			x								
	Cyperus difformis	x	x	x								
	Cyperus hesperius	x	x									
	Cyperus iria	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Cyperaceae cont.	*Cyperus ixiocarpus*	x	x	x								
	Cyperus leptocarpus			x								
	Cyperus pulchellus		x									
	Cyperus squarrosus		x									
	Cyperus vaginatus	x	x	x								
	Eleocharis atropurpurea	x	x									
	Eleocharis geniculata	x	x	x								
	Eleocharis pallens		x									
	Eleocharis papillosa				x				P3			
	Fimbristylis depauperata	x	x									
	Fimbristylis dichotoma	x	x	x								
	Fimbristylis littoralis	x	x									
	Fimbristylis microcarya	x	x	x								
	Fimbristylis sieberiana	x	x		x	x			P3			
	Fimbristylis simulans	x	x	x								
	Fuirena ciliaris		x									
	Machaerina rubiginosa		x									
	Schoenoplectiella dissachantha	x	x	x								
	Schoenoplectiella laevis		x									
	Schoenoplectus subulatus	x	x	x								
	Schoenus falcatus		x									
Dilleniaceae	*Hibbertia glaberrima*	x	x	x								
Droseraceae	*Drosera finlaysoniana*			x								
Elaeocarpaceae	*Tetratheca fordiana*	x	x		x	x			P2			
Elatinaceae	*Bergia pedicellaris*		x	x								
	Bergia trimera		x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Euphorbiaceae	*Adriana tomentosa*	x	x									
	Adriana tomentosa var. *hookeri*	x										
	Adriana tomentosa var. *tomentosa*	x										
	Euphorbia australis	x	x	x								
	Euphorbia australis var. *glabra*	x			x	x			P3			
	Euphorbia australis var. *hispidula*	x		x								
	Euphorbia australis var. *subtomentosa*	x		x								
	Euphorbia biconvexa	x	x	x								
	Euphorbia boophthona	x	x	x								
	Euphorbia careyi		x									
	Euphorbia clementii	x				x			P3			
	Euphorbia coghlanii	x	x	x								
	Euphorbia drummondii	x	x	x								
	Euphorbia ferdinandi	x	x									
	Euphorbia ferdinandi var. *ferdinandi*	x		x								
	Euphorbia hirta			x								
	Euphorbia inappendiculata		x									
	Euphorbia inappendiculata var. *inappendiculata*				x				P2			
	Euphorbia inappendiculata var. *queenslandica*	x			x				P2			
	Euphorbia myrtoides	x										
	Euphorbia prostrata		x									Y
	Euphorbia stevenii	x	x		x				P3			
	Euphorbia tannensis		x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Euphorbiaceae cont.	*Euphorbia tannensis* subsp. *eremophila*	x		x								
	Euphorbia trigonosperma	x	x	x								
	Euphorbia vaccaria		x									
	Euphorbia vaccaria var. *vaccaria*	x										
	Euphorbia wheeleri		x									
	Jatropha gossypiifolia							x				Y
	Mercurialis annua	x	x									Y
Fabaceae	*Acacia* ? *arida* x *hilliana*			x								
	Acacia acradenia	x	x									
	Acacia adoxa	x	x	x								
	Acacia adoxa var. *adoxa*	x		x								
	Acacia adsurgens	x	x	x								
	Acacia adsurgens x ?			x								
	Acacia adsurgens x *rhodophloia*	x	x									
	Acacia aff. *ayersiana*	x										
	Acacia aff. *hamersleyensis*	x										
	Acacia ampliceps	x	x	x								
	Acacia ancistrocarpa	x	x	x								
	Acacia aneura	x	x	x								
	Acacia aneura x *ayersiana*			x								
	Acacia aneura x *incurvaneura*	x										
	Acacia aptaneura	x	x	x								
	Acacia aptaneura x *ayersiana*			x								
	Acacia aptaneura x *incurvaneura*	x										
	Acacia aptaneura x *paraneura*	x										

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Acacia aptaneura* x *pteraneura*	x										
	Acacia arida	x	x	x								
	Acacia arrecta		x									
	Acacia atkinsiana	x	x	x								
	Acacia ayersiana	x	x	x								
	Acacia ayersiana (hybrid)	x										
	Acacia bivenosa	x	x	x								
	Acacia bromilowiana	x	x	x	x	x			P4			
	Acacia catenulata	x	x									
	Acacia catenulata subsp. *occidentalis*	x		x								
	Acacia citrinoviridis	x	x	x								
	Acacia colei		x									
	Acacia colei var. *colei*	x										
	Acacia colei var. *ileocarpa*			x								
	Acacia coriacea		x									
	Acacia coriacea subsp. *pendens*	x		x								
	Acacia cowleana	x	x	x								
	Acacia cuthbertsonii subsp. *cuthbertsonii*			x								
	Acacia daweana		x		x	x			P3			
	Acacia dictyophleba	x	x	x								
	Acacia effusa	x	x	x	x	x			P3			
	Acacia elachantha	x	x	x								
	Acacia eriopoda		x									
	Acacia exigua	x	x									
	Acacia hamersleyensis	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Acacia hilliana*	x	x	x								
	Acacia inaequilatera	x	x	x								
	Acacia incurvaneura	x	x	x								
	Acacia kempeana	x	x	x								
	Acacia ligulata	x	x									
	Acacia macraneura	x	x	x								
	Acacia maitlandii	x	x	x								
	Acacia marramamba	x	x	x								
	Acacia melleodora	x	x									
	Acacia minyura	x	x	x								
	Acacia monticola	x	x	x								
	Acacia mulganeura	x	x	x								
	Acacia orthocarpa			x								
	Acacia pachyacra	x	x	x								
	Acacia paraneura	x	x	x								
	Acacia pruinocarpa	x	x	x								
	Acacia pteraneura	x	x	x								
	Acacia pyrifolia	x	x	x								
	Acacia pyrifolia var. *morrisonii*	x										
	Acacia pyrifolia var. *pyrifolia*	x		x								
	Acacia retivenea		x									
	Acacia retivenea subsp. *clandestina*	x										
	Acacia rhodophloia	x	x	x								
	Acacia rhodophloia x *sibirica*	x	x	x								
	Acacia sclerosperma		x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Acacia sclerosperma* subsp. *sclerosperma*	x										
	Acacia sericophylla	x	x	x								
	Acacia sibilans		x									
	Acacia sibirica	x	x	x								
	Acacia sphaerostachya		x									
	Acacia spondylophylla	x	x	x								
	Acacia steedmanii		x									
	Acacia steedmanii subsp. *borealis*	x		x								
	Acacia subcontorta		x									
	Acacia subtiliformis	x	x		x	x			P3			
	Acacia synchronicia	x	x	x								
	Acacia tenuissima	x	x	x								
	Acacia tetragonophylla	x	x	x								
	Acacia trachycarpa	x	x	x								
	Acacia trudgeniana	x	x	x								
	Acacia tumida		x									
	Acacia tumida var. *pilbarensis*	x		x								
	Acacia victoriae	x	x									
	Acacia victoriae subsp. *victoriae*	x										
	Acacia wanyu		x	x								
	Acacia xiphophylla		x									
	Alhagi maurorum							x				Y
	Alysicarpus muelleri		x									
	Cajanus cinereus		x									
	Cajanus marmoratus	x	x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Crotalaria cunninghamii*		x									
	Crotalaria dissitiflora		x									
	Crotalaria dissitiflora subsp. *benthamiana*	x										
	Crotalaria medicaginea	x	x	x								
	Crotalaria medicaginea var. *neglecta*	x		x								
	Crotalaria novae-hollandiae	x	x									
	Crotalaria novae-hollandiae subsp. *novae-hollandiae*	x										
	Cullen cinereum	x	x									
	Cullen graveolens	x	x									
	Cullen lachnostachys		x									
	Cullen leucanthum		x									
	Cullen leucochaites	x	x	x								
	Cullen martinii	x	x									
	Cullen pallidum	x	x									
	Cullen pogonocarpum	x	x	x								
	Daviesia eremaea	x	x									
	Desmodiopsis campylocaulon	x	x									
	Gastrolobium grandiflorum	x	x	x								
	Glycine canescens	x	x	x								
	Glycine falcata	x	x		x	x			P3			
	Glycine tabacina		x									
	Gompholobium karijini		x		x				P2			
	Gompholobium oreophilum	x	x	x								
	Gompholobium polyzygum	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Grona muelleri*	x	x									
	Indigastrum parviflorum		x									
	Indigofera colutea		x									
	Indigofera fractiflexa	x	x	x								
	Indigofera fractiflexa subsp. *fractiflexa*	x		x								
	Indigofera georgei	x	x	x								
	Indigofera gilesii	x	x	x	x	x			P3			
	Indigofera hirsuta		x									
	Indigofera ixocarpa		x		x	x			P2			
	Indigofera linifolia	x	x									
	Indigofera linnaei		x	x								
	Indigofera monophylla	x	x	x								
	Indigofera rugosa	x	x	x								
	Indigofera trita	x	x									
	Isotropis atropurpurea	x	x	x								
	Isotropis forrestii		x						P1			
	Isotropis iophyta	x	x	x								
	Isotropis parviflora	x	x		x				P2			
	Kennedia prorepens			x								
	Labichea cassioides		x									
	Lotus cruentus	x	x									
	Mirbelia viminalis	x	x	x								
	Muelleranthus stipularis		x									
	Neptunia dimorphantha	x	x									
	Neptunia gracilis	x	x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Neptunia gracilis* forma *gracilis*	x										
	Parkinsonia aculeata							x				Y
	Petalostylis cassioides		x									
	Petalostylis labicheoides	x	x	x								
	Prosopis glandulosa x *velutina*							x				Y
	Rhynchosia australis	x	x									
	Rhynchosia bungarensis	x	x		x				P4			
	Rhynchosia minima	x	x	x								
	Senna alata							x				Y
	Senna artemisioides	x	x									
	Senna artemisioides subsp. ×*artemisioides*	x		x								
	Senna artemisioides subsp. ×*sturtii*	x		x								
	Senna artemisioides subsp. *filifolia*	x		x								
	Senna artemisioides subsp. *helmsii*	x		x								
	Senna artemisioides subsp. *oligophylla*	x		x								
	Senna artemisioides subsp. *oligophylla* x *glutinosa* subsp. *glutinosa*	x										
	Senna artemisioides subsp. *oligophylla* x *helmsii*	x		x								
	Senna artemisioides subsp. *petiolaris*	x		x								
	Senna cf. *glaucifolia*			x								
	Senna curvistyla		x									
	Senna cuthbertsonii		x									
	Senna ferraria	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Senna glaucifolia*	x	x	x								
	Senna glaucifolia x *glutinosa* subsp. *×luerssenii*	x										
	Senna glaucifolia x *glutinosa* subsp. *glutinosa*	x										
	Senna glutinosa	x	x									
	Senna glutinosa subsp. *×luerssenii*	x		x								
	Senna glutinosa subsp. *×luerssenii* x *stricta*	x										
	Senna glutinosa subsp. *chatelainiana*	x										
	Senna glutinosa subsp. *glutinosa*	x		x								
	Senna glutinosa subsp. *glutinosa* x *glutinosa* subsp. *×luerssenii*	x										
	Senna glutinosa subsp. *glutinosa* x *stricta*	x										
	Senna glutinosa subsp. *pruinosa*	x		x								
	Senna hamersleyensis	x	x	x								
	Senna notabilis	x	x	x								
	Senna obtusifolia							x				Y
	Senna pleurocarpa		x	x								
	Senna pleurocarpa var. *angustifolia*	x		x								
	Senna sericea	x	x	x								
	Senna sp. Karijini (M.E. Trudgen 10392)	x	x									
	Senna sp. Meekatharra (E. Bailey 1-26)		x	x								
	Senna stricta	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Senna symonii*	x	x	x								
	Senna venusta	x	x	x								
	Sesbania cannabina	x	x									
	Stylosanthes hamata	x	x									Y
	Swainsona canescens	x	x	x								
	Swainsona complanata	x	x	x								
	Swainsona decurrens	x	x									
	Swainsona elegantoides	x	x									
	Swainsona formosa	x	x									
	Swainsona kingii	x	x	x								
	Swainsona leeana	x	x									
	Swainsona maccullochiana	x	x									
	Swainsona oroboides	x	x									
	Swainsona paucifoliolata		x									
	Swainsona thompsoniana	x	x		x				P3			
	Swainsona unifoliolata		x									
	Templetonia egena	x	x									
	Tephrosia arenicola		x									
	Tephrosia clementii	x	x									
	Tephrosia densa	x	x	x								
	Tephrosia oxalidea	x	x	x								
	Tephrosia rosea		x									
	Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	x		x								
	Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Fabaceae cont.	*Tephrosia* sp. Clay soils (S. van Leeuwen *et al.* PBS 0273)	x	x									
	Tephrosia sp. Newman (A.A. Mitchell PRP 29)	x	x									
	Tephrosia sp. NW Eremaean (S. van Leeuwen *et al.* PBS 0356)	x	x									
	Tephrosia stipuligera		x									
	Tephrosia supina		x									
	Tephrosia virens	x	x	x								
	Trigonella suavissima		x									
	Ulex europaeus							x				Y
	Vachellia farnesiana	x	x	x								Y
	Vigna lanceolata	x	x	x								
	Vigna lanceolata var. *lanceolata*	x		x								
	Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)	x	x	x								
Frankeniaceae	*Frankenia cinerea*		x									
Gentianaceae	*Schenkia australis*	x	x									
Geraniaceae	*Erodium cygnorum*	x	x									
Goodeniaceae	*Brunonia australis*	x	x	x								
	Brunonia australis var. A Kimberley Flora (K.F. Kenneally 5452)	x										
	Brunonia sp. Long hairs (D.E. Symon 2440)	x										
	Dampiera anonyma				x	x			P3			
	Dampiera candicans	x	x	x								
	Dampiera metallorum	x	x	x	x	x			P3			
	Goodenia connata	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Goodeniaceae cont.	*Goodenia cusackiana*	x	x	x								
	Goodenia heterochila		x	x								
	Goodenia lamprosperma		x	x								
	Goodenia lyrata	x	x		x	x			P3			
	Goodenia microptera	x	x	x								
	Goodenia mueckeana	x	x									
	Goodenia muelleriana	x	x	x								
	Goodenia nuda	x	x	x	x	x						
	Goodenia pascua	x	x									
	Goodenia prostrata	x	x	x								
	Goodenia scaevolina	x	x									
	Goodenia sp. East Pilbara (A.A. Mitchell PRP 727)	x			x	x			P3			
	Goodenia stellata	x	x	x								
	Goodenia stobbsiana	x	x	x								
	Goodenia tenuiloba	x	x	x								
	Goodenia triodiophila	x	x	x								
	Scaevola acacioides	x	x	x								
	Scaevola amblyanthera	x	x	x								
	Scaevola amblyanthera var. *amblyanthera*	x										
	Scaevola amblyanthera var. *centralis*	x		x								
	Scaevola browniana	x	x	x								
	Scaevola browniana subsp. *browniana*	x		x								
	Scaevola parvifolia	x	x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Goodeniaceae cont.	*Scaevola parvifolia* subsp. *pilbarae*	x		x								
	Scaevola sp. Hamersley Range basalts (S. van Leeuwen 3675)				x	x			P2			
	Scaevola sp. Mt Bruce (M.E. Trudgen 1333)		x	x								
	Scaevola spinescens	x	x	x								
Gyrostemonaceae	*Codonocarpus cotinifolius*	x	x	x								
Haloragaceae	*Gonocarpus ephemerus*		x									
	Haloragis gossei	x	x	x								
	Haloragis gossei var. *gossei*	x		x								
	Haloragis gossei var. *inflata*	x										
	Haloragis maierae	x	x									
	Haloragis trigonocarpa	x	x									
	Myriophyllum verrucosum		x									
Hemerocallidaceae	*Tricoryne* sp. Hamersley Range (S. van Leeuwen 915)	x	x	x								
Hydrocharitaceae	*Najas marina*		x									
Iridaceae	*Moraea flaccida*							x				Y
	Moraea miniata							x				Y
Lamiaceae	*Clerodendrum floribundum*		x									
	Clerodendrum floribundum var. *angustifolium*	x		x								
	Clerodendrum tomentosum		x									
	Clerodendrum tomentosum var. *lanceolatum*	x										
	Coleus intraterraneus	x	x									
	Dicrastylis cordifolia	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Lamiaceae cont.	*Dicrastylis mitchellii*		x		x				P1			
	Newcastelia cephalantha	x	x									
	Newcastelia clavipetala	x	x	x								
	Newcastelia hexarrhena		x									
	Prostanthera albiflora	x	x	x								
	Prostanthera campbellii	x	x									
	Teucrium disjunctum	x	x	x								
	Teucrium pilbaranum	x	x		x				P2			
	Teucrium teucriiflorum	x	x	x								
Lauraceae	*Cassytha capillaris*	x	x	x								
	Cassytha filiformis	x	x	x								
	Cassytha racemosa		x									
	Cassytha racemosa forma *pilosa*	x										
Linderniaceae	*Lindernia* sp. Pilbara (M.N. Lyons & L. Lewis FV 1069)				x				P1			
Loganiaceae	*Mitrasacme connata*		x									
Loranthaceae	*Amyema benthamii*		x									
	Amyema bifurcata	x	x									
	Amyema fitzgeraldii	x	x	x								
	Amyema gibberula	x	x									
	Amyema gibberula var. *gibberula*	x		x								
	Amyema hilliana	x	x									
	Amyema miquelii	x	x	x								
	Amyema preissii	x	x	x								
	Amyema sanguinea	x	x	x								
	Amyema sanguinea var. *pulchra*	x		x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Loranthaceae cont.	*Amyema sanguinea* var. *sanguinea*	x										
	Diplatia grandibractea		x									
	Lysiana casuarinae	x	x	x								
	Lysiana murrayi	x	x	x								
Lythraceae	*Ammannia baccifera*	x	x	x								
	Ammannia multiflora		x	x								
	Rotala diandra			x								
	Rotala mexicana		x									
	Rotala occultiflora			x								
Malvaceae	*Abutilon amplum*	x	x	x								
	Abutilon cryptopetalum	x	x	x								
	Abutilon cunninghamii	x	x	x								
	Abutilon fraseri	x	x	x								
	Abutilon fraseri subsp. *fraseri*	x										
	Abutilon hannii	x	x									
	Abutilon lepidum	x	x	x								
	Abutilon leucopetalum	x	x									
	Abutilon macrum	x	x	x								
	Abutilon malvifolium	x	x	x								
	Abutilon otocarpum	x	x	x								
	Abutilon oxycarpum	x	x	x								
	Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)	x										
	Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	x	x	x								
	Abutilon sp. Pilbara (W.R. Barker 2025)	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Malvaceae cont.	*Androcalva loxophylla*		x	x								
	Androcalva luteiflora	x	x	x								
	Brachychiton acuminatus	x	x	x								
	Brachychiton gregorii	x	x	x								
	Corchorus crozophorifolius	x	x	x								
	Corchorus incanus		x									
	Corchorus incanus subsp. *incanus*			x								
	Corchorus incanus subsp. *lithophilus*			x								
	Corchorus laniflorus			x								
	Corchorus lasiocarpus	x	x	x								
	Corchorus lasiocarpus subsp. *lasiocarpus*	x		x								
	Corchorus lasiocarpus subsp. *parvus*	x		x								
	Corchorus parviflorus		x									
	Corchorus sidoides	x	x	x								
	Corchorus sidoides subsp. *sidoides*	x		x								
	Corchorus sp. Hamersley Range (S. van Leeuwen 3586)			x								
	Corchorus sp. Hamersley Range hilltops (S. van Leeuwen 3826)	x	x									
	Corchorus tectus	x	x									
	Corchorus tridens	x	x	x								
	Corchorus walcottii		x									
	Gossypium australe	x	x	x								
	Gossypium australe x *sturtianum*	x										

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Malvaceae cont.	*Gossypium robinsonii*	x	x	x								
	Gossypium robinsonii x *sturtianum*	x										
	Gossypium sturtianum	x	x	x								
	Gossypium sturtianum var. *sturtianum*	x		x								
	Hannafordia bissillii		x									
	Hannafordia bissillii subsp. *bissillii*	x										
	Hibiscus aff. *haynaldii*	x										
	Hibiscus brachychlaenus	x	x	x								
	Hibiscus brachysiphonius		x									
	Hibiscus burtonii	x	x	x								
	Hibiscus coatesii	x	x	x								
	Hibiscus goldsworthii	x		x								
	Hibiscus haynaldii	x	x	x								
	Hibiscus leptocladus	x	x	x								
	Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	x	x									
	Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708)	x		x	x				P2			
	Hibiscus sp. Mt Brockman (E. Thoma ET 1354)				x				P1			
	Hibiscus sp. Mt Robinson (G. Byrne 3537)	x	x									
	Hibiscus sturtii	x	x									
	Hibiscus sturtii var. *campylochlamys*	x		x								
	Hibiscus sturtii var. *grandiflorus*	x		x								
	Hibiscus sturtii var. *platychlamys*	x		x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Malvaceae cont.	*Hibiscus sturtii* var. *truncatus*	x										
	Hibiscus verdcourtii	x	x									
	Lawrencia densiflora		x									
	Lawrencia glomerata		x									
	Lawrencia helmsii		x									
	Malvastrum americanum	x	x	x								Y
	Melhania oblongifolia	x	x	x								
	Seringia exastia	x	x	x	x							
	Seringia nephrosperma	x	x	x								
	Sida aff. *fibulifera*			x								
	Sida arenicola	x	x	x								
	Sida arsiniata		x	x								
	Sida calyxhymenia	x	x									
	Sida cardiophylla	x	x	x								
	Sida cf. *platycalyx*			x								
	Sida clementii	x										
	Sida echinocarpa	x	x	x								
	Sida ectogama	x	x	x								
	Sida fibulifera	x	x	x								
	Sida macropoda		x									
	Sida platycalyx	x	x	x								
	Sida rohlenae	x	x									
	Sida rohlenae subsp. *rohlenae*			x								
	Sida sp. Articulation below (A.A. Mitchell PRP 1605)	x	x	x								
	Sida sp. Barlee Range (S. van Leeuwen 1642)	x	x	x	x				P4			

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
	Sida sp. dark green fruits (S. van Leeuwen 2260)	x	x	x								
	Sida sp. Excedentifolia (J.L. Egan 1925)	x	x	x								
	Sida sp. Golden calyces glabrous (H.N. Foote 32)	x		x								
	Sida sp. Hamersley Range (K. Newbey 10692)	x	x		x				P3			
	Sida sp. L (A.M. Ashby 4202)	x	x	x								
	Sida sp. Pilbara (A.A. Mitchell PRP 1543)	x	x	x								
	Sida sp. Rabbit Flat (B.J. Carter 626)		x									
	Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	x	x	x								
	Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	x	x	x								
	Sida sp. Supplejack Station (T.S. Henshall 2345)	x	x	x								
	Sida sp. tiny glabrous fruit (A.A. Mitchell PRP1152)		x									
	Sida spinosa	x	x	x								
	Sida trichopoda	x	x									
	Triumfetta chaetocarpa			x								
	Triumfetta clementii			x								
	Triumfetta leptacantha	x	x	x								
	Triumfetta maconochieana	x	x									
	Triumfetta ramosa	x	x									
	Waltheria indica	x	x	x								
	Waltheria virgata		x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Marsileaceae	*Marsilea costulifera*		x									
	Marsilea drummondii		x									
	Marsilea exarata	x	x	x								
	Marsilea hirsuta	x	x	x								
Menispermaceae	*Tinospora smilacina*	x	x	x								
Molluginaceae	*Trigastrotheca molluginea*	x	x	x								
Montiaceae	*Calandrinia balonensis*		x									
	Calandrinia eremaea		x									
	Calandrinia monosperma	x	x									
	Calandrinia polyandra	x										
	Calandrinia ptychosperma	x	x	x								
	Calandrinia pumila	x	x									
	Calandrinia reticulata		x									
	Calandrinia schistorhiza		x									
Moraceae	*Ficus brachypoda*	x	x	x								
	Ficus platypoda	x	x									
	Ficus virens		x									
Myrtaceae	*Calytrix carinata*	x	x	x								
	Corymbia aspera	x	x	x								
	Corymbia candida	x	x									
	Corymbia chippendalei		x									
	Corymbia deserticola	x	x	x								
	Corymbia deserticola subsp. *deserticola*	x		x								
	Corymbia dichromophloia	x	x									
	Corymbia ferriticola	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Myrtaceae cont.	*Corymbia hamersleyana*	x	x	x								
	Corymbia opaca	x	x									
	Eucalyptus aridimontana		x									
	Eucalyptus camaldulensis	x	x	x								
	Eucalyptus camaldulensis subsp. *obtusa*	x		x								
	Eucalyptus camaldulensis subsp. *refulgens*	x		x								
	Eucalyptus ewartiana	x	x	x								
	Eucalyptus gamophylla	x	x	x								
	Eucalyptus kingsmillii	x	x	x								
	Eucalyptus leucophloia	x	x									
	Eucalyptus leucophloia subsp. *leucophloia*	x		x								
	Eucalyptus lucasii	x	x									
	Eucalyptus pilbarensis	x	x	x								
	Eucalyptus repullulans	x	x	x								
	Eucalyptus socialis	x	x									
	Eucalyptus socialis subsp. *eucentrica*	x										
	Eucalyptus tephrodes	x	x									
	Eucalyptus trivalva	x	x	x								
	Eucalyptus victrix	x	x	x								
	Eucalyptus xerothermica	x	x	x								
	Lamarchea sulcata		x									
	Melaleuca argentea	x	x									
	Melaleuca bracteata	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Myrtaceae cont.	*Melaleuca eleuterostachya*	x	x									
	Melaleuca glomerata	x	x	x								
	Melaleuca leiocarpa		x									
	Melaleuca leucadendra		x									
	Melaleuca linophylla		x									
	Melaleuca xerophila		x									
	Thryptomene wittweri	x	x		x	x	x		T	VUL	VUL	
Nyctaginaceae	*Boerhavia coccinea*	x	x	x								
	Boerhavia gardneri			x								
	Boerhavia paludosa	x	x									
	Boerhavia repleta	x	x	x								
	Boerhavia schomburgkiana			x								
Oleaceae	*Jasminum didymum*	x	x									
	Jasminum didymum subsp. *lineare*	x		x								
Onagraceae	*Ludwigia perennis*			x								
Ophioglossaceae	*Ophioglossum lusitanicum*	x	x									
Orobanchaceae	*Striga* cf. *squamigera*			x								
	Striga curviflora		x									
	Striga squamigera	x	x									
Oxalidaceae	*Oxalis corniculata*	x	x									Y
	Oxalis perennans	x	x	x								
	Oxalis sp. Pilbara (M.E. Trudgen 12725)	x	x	x	x				P3			
Papaveraceae	*Argemone ochroleuca*	x	x	x								Y
	Argemone ochroleuca subsp. *ochroleuca*			x								
Pedaliaceae	*Josephinia eugeniae*	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Phrymaceae	*Elacholoma hornii*	x	x									
	Glossostigma diandrum	x	x									
	Mimulus gracilis	x	x	x								
	Peplidium aithocheilum	x	x									
	Peplidium muelleri	x	x	x								
	Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)			x								
	Peplidium sp. E Evol. Fl. Fauna Arid Aust. (A.S. Weston 12768)	x	x									
Phyllanthaceae	*Cathetus virgatus*	x	x									
	Dendrophyllanthus erwinii	x	x	x								
	Kirganelia baccata	x	x	x								
	Nellica maderaspatensis	x	x	x								
	Notoleptopus decaisnei		x									
	Notoleptopus decaisnei var. *decaisnei*			x								
	Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)			x								
	Synostemon hamersleyensis	x	x		x				T			
	Synostemon rhytidospermus	x	x									
Pittosporaceae	*Pittosporum angustifolium*		x	x								
	Pittosporum phillyreoides	x	x									
Plantaginaceae	*Plantago cunninghamii*	x	x									
	Stemodia glabella		x									
	Stemodia grossa	x	x	x								
	Stemodia linophylla		x									
	Stemodia viscosa		x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Plumbaginaceae	*Plumbago zeylanica*	x	x									
Poaceae	*Acrachne racemosa*	x	x	x								
	Amphipogon caricinus	x	x									
	Amphipogon caricinus var. *caricinus*			x								
	Amphipogon sericeus	x	x	x								
	Aristida burbidgeae	x	x	x								
	Aristida contorta	x	x	x								
	Aristida holathera		x									
	Aristida holathera var. *holathera*	x		x								
	Aristida hygrometrica		x									
	Aristida inaequiglumis	x	x	x								
	Aristida ingrata	x	x	x								
	Aristida jerichoensis		x									
	Aristida jerichoensis var. *subspinulifera*	x		x	x				P3			
	Aristida latifolia	x	x									
	Aristida lazaridis	x	x	x	x				P3			
	Aristida nitidula	x										
	Aristida obscura	x	x	x								
	Aristida pruinosa	x	x	x								
	Astrebla elymoides	x	x									
	Astrebla pectinata	x	x									
	Bothriochloa bladhii	x	x									
	Bothriochloa bladhii subsp. *bladhii*	x										
	Bothriochloa ewartiana	x	x	x								
	Cenchrus ciliaris	x	x	x								Y

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Poaceae cont.	*Cenchrus echinatus*	x	x									Y
	Cenchrus setiger		x	x								Y
	Chloris barbata	x	x									Y
	Chloris pectinata	x	x	x								
	Chloris virgata	x	x	x								Y
	Chrysopogon fallax	x	x	x								
	Cymbopogon ambiguus	x	x	x								
	Cymbopogon bombycinus	x	x									
	Cymbopogon obtectus	x	x	x								
	Cynodon convergens	x	x									
	Cynodon prostratus		x									
	Cynodon tenellus	x	x									
	Dactyloctenium radulans	x	x	x								
	Dichanthium fecundum			x								
	Dichanthium sericeum		x									
	Dichanthium sericeum subsp. *humilius*	x		x								
	Dichanthium sericeum subsp. *polystachyum*	x										
	Dichanthium sericeum subsp. *sericeum*	x										
	Digitaria ammophila	x	x	x								
	Digitaria brownii	x	x	x								
	Digitaria ciliaris	x	x	x								Y
	Digitaria coenicola	x										
	Digitaria ctenantha	x	x	x								
	Diplachne fusca		x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Poaceae cont.	*Diplachne fusca* subsp. *fusca*	x										
	Echinochloa colona	x	x	x								Y
	Elytrophorus spicatus		x	x								
	Enneapogon avenaceus		x									
	Enneapogon caerulescens	x	x	x								
	Enneapogon cylindricus		x	x								
	Enneapogon lindleyanus	x	x	x								
	Enneapogon pallidus	x	x									
	Enneapogon polyphyllus	x	x	x								
	Enneapogon robustissimus	x	x	x								
	Enteropogon ramosus	x	x	x								
	Eragrostis crateriformis		x		x							
	Eragrostis cumingii	x	x	x								
	Eragrostis desertorum	x	x									
	Eragrostis dielsii	x	x									
	Eragrostis elongata		x	x								
	Eragrostis eriopoda	x	x	x								
	Eragrostis falcata	x	x									
	Eragrostis fallax	x	x									
	Eragrostis leptocarpa	x	x	x								
	Eragrostis olida		x									
	Eragrostis pergracilis	x	x	x								
	Eragrostis setifolia	x	x	x								
	Eragrostis sp. Erect spikelets (P.K. Latz 2122)				x				P3			
	Eragrostis sp. Mt Robinson (S. van Leeuwen 4109)	x	x	x	x	x			P3			

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Poaceae cont.	*Eragrostis tenellula*	x	x	x								
	Eragrostis xerophila	x	x	x								
	Eriachne aristidea	x	x	x								
	Eriachne benthamii	x	x	x								
	Eriachne ciliata	x		x								
	Eriachne flaccida	x	x	x								
	Eriachne gardneri		x									
	Eriachne helmsii	x	x	x								
	Eriachne lanata	x	x	x								
	Eriachne mucronata	x	x	x								
	Eriachne obtusa			x								
	Eriachne ovata	x	x									
	Eriachne pulchella	x	x	x								
	Eriachne pulchella subsp. *dominii*	x		x								
	Eriachne pulchella subsp. *pulchella*	x		x								
	Eriachne tenuiculmis	x	x	x								
	Eulalia aurea	x	x	x								
	Eulalia simonii			x								
	Imperata cylindrica		x									
	Ischaemum albovillosum	x	x									
	Iseilema dolichotrichum	x	x	x								
	Iseilema eremaeum	x	x	x								
	Iseilema membranaceum	x	x	x								
	Iseilema vaginiflorum	x	x									
	Leptochloa sp. indet			x								
	Melinis repens		x	x								Y

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Poaceae cont.	*Monachather paradoxus*	x	x									
	Panicum australiense	x	x									
	Panicum australiense var. *australiense*	x										
	Panicum decompositum	x	x	x								
	Panicum effusum	x	x	x								
	Panicum laevinode	x	x	x								
	Paraneurachne muelleri	x	x	x								
	Paspalidium basicladum	x	x	x								
	Paspalidium cf. *jubiflorum*			x								
	Paspalidium clementii	x	x	x								
	Paspalidium constrictum	x	x									
	Paspalidium gracile	x	x									
	Paspalidium jubiflorum	x	x									
	Paspalidium rarum	x	x	x								
	Paspalidium reflexum	x	x									
	Paspalum dilatatum		x									Y
	Perotis rara	x	x	x								
	Schizachyrium fragile	x	x	x								
	Setaria dielsii	x	x	x								
	Setaria surgens		x	x								
	Setaria verticillata	x	x	x								Y
	Sorghum plumosum		x	x								
	Sorghum plumosum var. *plumosum*			x								
	Sorghum timorense		x	x								
	Sporobolus australasicus	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Poaceae cont.	*Themeda avenacea*	x	x									
	Themeda cf. sp. Hamersley Station (M.E. Trudgen 11431)			x								
	Themeda sp. Hamersley Station (M.E. Trudgen 11431)	x	x	x	x				P3			
	Themeda sp. Mt Barricade (M.E. Trudgen 2471)	x	x	x								
	Themeda triandra	x	x	x								
	Thyridolepis mitchelliana		x									
	Tragus australianus	x	x	x								
	Triodia angusta		x	x								
	Triodia basedowii	x	x	x								
	Triodia basitricha		x		x				P3			
	Triodia biflora	x	x	x								
	Triodia brizoides	x	x	x								
	Triodia epactia		x	x								
	Triodia lanigera			x								
	Triodia longiceps	x	x	x								
	Triodia melvillei	x	x	x								
	Triodia pungens	x	x	x								
	Triodia schinzii	x	x									
	Triodia karijini	x	x	x	x				P2			
	Triodia sp. Mt Ella (M.E. Trudgen 12739)	x	x	x	x				P3			
	Triodia vanleeuwenii	x	x	x								
	Triodia wiseana	x	x	x								
	Tripogonella loliiformis	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Poaceae cont.	*Triraphis mollis*	x	x	x								
	Urochloa occidentalis	x	x									
	Urochloa occidentalis var. *ciliata*	x										
	Urochloa occidentalis var. *occidentalis*	x										
	Urochloa piligera	x	x	x								
	Urochloa pubigera	x	x									
	Urochloa distachyos	x	x									
Polygalaceae	*Polygala glaucifolia*	x	x	x								
	Polygala isingii	x	x	x								
Polygonaceae	*Duma florulenta*	x	x									
	Rumex vesicarius	x	x	x								Y
Portulacaceae	*Portulaca decipiens*	x	x									
	Portulaca intraterranea		x									
	Portulaca oleracea	x	x	x								
	Portulaca pilosa	x										Y
Potamogetonaceae	*Potamogeton tepperi*		x									
Primulaceae	*Lysimachia arvensis*			x								
	Samolus sp. Fortescue Marsh (A. Markey & R. Coppen FM 9702)				x				P1			
	Samolus sp. Millstream (M.I.H. Brooker 2076)		x									
Proteaceae	*Grevillea berryana*	x	x	x								
	Grevillea eriostachya		x									
	Grevillea pyramidalis	x	x									
	Grevillea pyramidalis subsp. *leucadendron*	x		x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Proteaceae cont.	*Grevillea saxicola*	x	x	x	x				P3			
	Grevillea striata		x	x								
	Grevillea wickhamii	x	x	x								
	Grevillea wickhamii subsp. *aprica*	x		x								
	Grevillea wickhamii subsp. *hispidula*	x		x								
	Hakea chordophylla	x	x	x								
	Hakea loreus	x	x									
	Hakea loreus subsp. *loreus*	x		x								
	Hakea preissii		x									
	Hakea rhombales	x	x									
Pteridaceae	*Adiantum capillus-veneris*		x		x				P2			
	Cheilanthes austrotenuifolia	x	x	x								
	Cheilanthes brownii	x	x	x								
	Cheilanthes contigua		x									
	Cheilanthes lasiophylla	x	x	x								
	Cheilanthes sieberi	x	x									
	Cheilanthes sieberi subsp. *pseudovellea*	x										
	Cheilanthes sieberi subsp. *sieberi*	x		x								
	Pellaea reynoldsii	x	x	x								
	Pteris vittata		x									
Rhamnaceae	*Cryptandra monticola*	x	x	x								
	Stenanthemum petraeum	x	x									
	Ventilago viminalis		x	x								
	Ziziphus mauritiana							x				Y

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Rosaceae	*Rubus anglocandicans*							x				Y
	Rubus laudatus							x				Y
	Rubus rugosus							x				Y
	Rubus ulmifolius							x				Y
Rubiaceae	*Dolichocarpa crouchiana*	x	x	x								
	Dolichocarpa sp. Hamersley Station (A.A. Mitchell PRP 1479)	x			x				P3			
	Kohautia australiensis	x	x		x				P2			
	Paranotis sp. Pilbara (H. Ajduk HAOP04a)				x				P1			
	Pomax rupestris	x	x									
	Psydrax latifolia	x	x	x								
	Psydrax rigidula	x	x									
	Psydrax suaveolens	x	x	x								
	Scleromitrion galioides			x								
	Spermacoce brachystema	x	x	x								
	Synaptantha tillaeacea	x	x	x								
Rutaceae	*Geijera salicifolia*		x		x				P3			
Santalaceae	*Anthobolus leptomerioides*	x	x	x								
	Exocarpos sparteus	x	x	x								
	Santalum acuminatum		x									
	Santalum lanceolatum	x	x	x								
	Santalum spicatum		x	x								
Sapindaceae	*Alectryon oleifolius*	x	x									
	Atalaya hemiglauca	x	x	x								
	Diplopeltis stuartii		x									
	Diplopeltis stuartii var. *stuartii*	x										

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Sapindaceae cont.	*Dodonaea coriacea*	x	x	x								
	Dodonaea lanceolata	x	x	x								
	Dodonaea lanceolata var. *lanceolata*	x		x								
	Dodonaea pachyneura	x	x	x								
	Dodonaea petiolaris	x	x	x								
	Dodonaea viscosa	x	x									
	Dodonaea viscosa subsp. *angustissima*			x								
	Dodonaea viscosa subsp. *mucronata*	x		x								
	Dodonaea viscosa subsp. *spatulata*	x		x								
Scrophulariaceae	*Eremophila caespitosa*	x	x	x								
	Eremophila canaliculata	x	x	x								
	Eremophila clarkei	x	x									
	Eremophila compacta	x	x									
	Eremophila compacta subsp. *compacta*			x								
	Eremophila cuneifolia	x	x	x								
	Eremophila exilifolia	x	x									
	Eremophila flaccida		x									
	Eremophila flaccida subsp. *flaccida*	x										
	Eremophila forrestii	x	x	x								
	Eremophila forrestii subsp. *forrestii*	x		x								
	Eremophila forrestii x *latrobei*	x										
	Eremophila fraseri	x	x									
	Eremophila fraseri subsp. *fraseri*	x		x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Scrophulariaceae cont.	*Eremophila galeata*	x	x									
	Eremophila gilesii	x	x									
	Eremophila glabra	x	x									
	Eremophila jucunda	x	x									
	Eremophila jucunda subsp. *pulcherrima*	x		x								
	Eremophila lachnocalyx	x	x									
	Eremophila lanceolata	x	x	x								
	Eremophila latrobei	x	x	x								
	Eremophila latrobei subsp. *filiformis*	x		x								
	Eremophila latrobei subsp. *glabra*	x		x								
	Eremophila latrobei subsp. *latrobei*	x		x								
	Eremophila longifolia	x	x	x								
	Eremophila maculata		x									
	Eremophila magnifica	x	x									
	Eremophila magnifica subsp. *magnifica*	x		x	x				P4			
	Eremophila magnifica subsp. *velutina*	x			x	x			P3			
	Eremophila naaykensii	x			x				P3			
	Eremophila oppositifolia		x									
	Eremophila oppositifolia subsp. *angustifolia*	x										
	Eremophila petrophila		x									
	Eremophila petrophila subsp. *petrophila*	x		x								
	Eremophila phyllopoda		x									

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Scrophulariaceae cont.	*Eremophila phyllopoda* subsp. *obliqua*	x		x								
	Eremophila platycalyx	x	x									
	Eremophila platycalyx subsp. Neds Creek (N.H. Speck 1228)	x										
	Eremophila platycalyx subsp. *pardalota*	x		x								
	Eremophila pusilliflora	x	x		x	x			P2			
	Eremophila rigida				x				P3			
	Eremophila sp. West Angelas (S. van Leeuwen 4068)	x	x	x	x				P2			
	Eremophila spongiocarpa		x		x	x			P3			
	Eremophila strongylophylla		x									
	Eremophila tietkensii	x	x	x								
	Eremophila youngii		x									
	Eremophila youngii subsp. *lepidota*	x			x				P4			
	Myoporum montanum	x	x	x								
Solanaceae	*Datura leichhardtii* subsp. *leichhardtii*	x	x	x								Y
	Nicotiana benthamiana	x	x	x								
	Nicotiana cavicola	x	x									
	Nicotiana ingulba	x										
	Nicotiana obliqua	x		x								
	Nicotiana occidentalis	x	x	x								
	Nicotiana rosulata	x	x	x								
	Nicotiana simulans	x	x									
	Solanum centrale	x	x	x								

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Solanaceae cont.	*Solanum chippendalei*		x									
	Solanum cleistogamum	x	x	x								
	Solanum diversiflorum	x	x									
	Solanum elaeagnifolium							x				Y
	Solanum elatius	x	x	x								
	Solanum ferocissimum	x	x	x								
	Solanum gabrielae	x	x									
	Solanum horridum	x	x	x								
	Solanum kentrocaule	x	x	x	x				P3			
	Solanum lasiophyllum	x	x	x								
	Solanum linnaeanum							x				Y
	Solanum morrisonii	x	x	x								
	Solanum nigrum	x	x	x								Y
	Solanum orbiculatum		x									
	Solanum phlomoides	x	x	x								
	Solanum piceum	x	x									
Stylidiaceae	*Stylidium fluminense*		x									
	Stylidium weeliwolli	x	x		x	x			P3			
Surianaceae	*Stylobasium spathulatum*	x	x	x								
Tamaricaceae	*Tamarix aphylla*							x				Y
Thelypteridaceae	*Ampelopteris prolifera*		x		x				P3			
Thymelaeaceae	*Pimelea forrestiana*	x	x									
	Pimelea holroydii	x	x									
	Pimelea microcephala		x									
	Pimelea microcephala subsp. *microcephala*	x										

Family	Taxon	Source							Conservation Status			Introduced
		NM	ALA	BHP	WAH	TPFL	EPBC	WAOL	DBCA	BC Act	EPBC Act	
Typhaceae	*Typha domingensis*		x									
Urticaceae	*Parietaria cardiostegia*	x	x									
Verbenaceae	*Lantana camara*							x				Y
Violaceae	*Afrohybanthus aurantiacus*	x	x	x								
Zygophyllaceae	*Roepera compressa*		x									
	Roepera eichleri	x	x									
	Roepera iodocarpa	x										
	Tribulopis angustifolia	x	x									
	Tribulus astrocarpus	x	x	x								
	Tribulus forrestii	x	x									
	Tribulus hirsutus	x	x	x								
	Tribulus macrocarpus	x	x									
	Tribulus occidentalis		x	x								
	Tribulus platypterus		x	x								
	Tribulus suberosus	x	x	x								
	Tribulus terrestris		x	x								Y

Appendix D: Introduced flora desktop

Family	Taxon	Source				DP	WoNS	Ecological Impact	Invasiveness
		NM	ALA	WAOL	BHP				
Alismataceae	*Sagittaria platyphylla*			x		Yes	Yes	Not Assessed	Not Assessed
Amaranthaceae	*Aerva javanica*	x	x		x	No	No	High	Rapid
	Alternanthera pungens		x			No	No	Low	Slow
Apiaceae	*Cyclospermum leptophyllum*	x	x			No	No	Not Assessed	Not Assessed
Apocynaceae	*Calotropis procera**			x		Yes	No	Not Assessed	Not Assessed
	Catharanthus roseus		x			No	No	Unknown	Unknown
	Cryptostegia madagascariensis			x		Yes	No	Not Assessed	Not Assessed
Araceae	*Pistia stratiotes*			x		Yes	No	Not Assessed	Not Assessed
	Zantedeschia aethiopica			x		Yes	No	Not Assessed	Not Assessed
Araliaceae	*Hydrocotyle ranunculoides*			x		Yes	No	Not Assessed	Not Assessed
Arecaceae	*Phoenix dactylifera*		x			No	No	High	Rapid
Asparagaceae	*Asparagus asparagoides*			x		Yes	Yes	Not Assessed	Not Assessed
Asteraceae	*Bidens bipinnata*	x	x		x	No	No	Unknown	Rapid
	Bidens pilosa var. *pilosa*		x			No	No	Not Assessed	Not Assessed
	Chondrilla juncea			x		Yes	No	Not Assessed	Not Assessed
	Erigeron bonariensis	x	x		x	No	No	Not Assessed	Not Assessed
	Flaveria trinervia	x	x		x	No	No	Not Assessed	Not Assessed
	Lactuca saligna		x			No	No	Not Assessed	Not Assessed
	Lactuca serriola	x	x		x	No	No	Not Assessed	Not Assessed
	Onopordum acaulon			x		Yes	No	Not Assessed	Not Assessed
	Sigesbeckia orientalis	x	x		x	No	No	Unknown	Rapid
	Silybum marianum			x		Yes	No	Not Assessed	Not Assessed
	Sonchus oleraceus		x		x	No	No	Low	Rapid
	Symphyotrichum squamatum	x	x			No	No	Not Assessed	Not Assessed
	Taraxacum khatoonae	x	x			No	No	Not Assessed	Not Assessed
	Tridax procumbens	x	x		x	No	No	Not Assessed	Not Assessed

Family	Taxon	Source				DP	WoNS	Ecological Impact	Invasiveness
		NM	ALA	WAOL	BHP				
Asteraceae cont.	*Xanthium spinosum*			x		Yes	No	Not Assessed	Not Assessed
	Xanthium strumarium			x		Yes	No	Not Assessed	Not Assessed
Boraginaceae	*Echium plantagineum*			x		Yes	No	Not Assessed	Not Assessed
Brassicaceae	*Sisymbrium orientale*				x	No	No	Low	Unknown
Cactaceae	*Austrocylindropuntia cylindrica*			x		Yes	Yes	Not Assessed	Not Assessed
	Austrocylindropuntia subulata			x		Yes	Yes	Not Assessed	Not Assessed
	Cylindropuntia fulgida			x		Yes	Yes	High	Slow
	Cylindropuntia imbricata			x		Yes	Yes	Not Assessed	Not Assessed
	Cylindropuntia kleiniae			x		Yes	Yes	Not Assessed	Not Assessed
	Cylindropuntia pallida			x		Yes	Yes	Not Assessed	Not Assessed
	Cylindropuntia tunicata			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia elata			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia elatior			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia engelmannii			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia ficus-indica			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia microdasys			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia monacantha			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia polyacantha			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia puberula			x		Yes	Yes	Not Assessed	Not Assessed
	Opuntia stricta			x		Yes	Yes	High	Rapid
	Opuntia tomentosa			x		Yes	Yes	Not Assessed	Not Assessed
Convolvulaceae	*Distimake dissectus*		x			No	No	Not Assessed	Not Assessed
Cucurbitaceae	*Citrullus amarus*	x	x		x	No	No	Not Assessed	Not Assessed
	Citrullus colocynthis				x	No	No	Unknown	Moderate
	Coccinia grandis			x		Yes	No	Not Assessed	Not Assessed
	Cucumis myriocarpus		x			No	No	Low	Rapid

Family	Taxon	Source				DP	WoNS	Ecological Impact	Invasiveness
		NM	ALA	WAOL	BHP				
Euphorbiaceae	*Euphorbia hirta*				x	No	No	Low	Slow
	Euphorbia prostrata		x			No	No	Unknown	Unknown
	*Jatropha gossypiifolia**			x		Yes	Yes	Not Assessed	Not Assessed
	Mercurialis annua	x	x			No	No	Not Assessed	Not Assessed
Fabaceae	*Alhagi maurorum*			x		Yes	No	Not Assessed	Not Assessed
	Parkinsonia aculeata			x		Yes	Yes	High	Rapid
	Prosopis glandulosa x *velutina*			x		Yes	Yes	Not Assessed	Not Assessed
	Senna alata			x		Yes	No	Not Assessed	Not Assessed
	Senna obtusifolia			x		Yes	No	Not Assessed	Not Assessed
	Stylosanthes hamata	x	x			No	No	Not Assessed	Not Assessed
	Ulex europaeus			x		Yes	Yes	Not Assessed	Not Assessed
	Vachellia farnesiana	x	x		x	No	No	High	Rapid
Iridaceae	*Moraea flaccida*			x		Yes	No	Not Assessed	Not Assessed
	Moraea miniata			x		Yes	No	Not Assessed	Not Assessed
Malvaceae	*Malvastrum americanum*	x	x		x	No	No	High	Rapid
	Sida acuta		x			No	No	Not Assessed	Not Assessed
Oxalidaceae	*Oxalis corniculata*	x	x			No	No	Not Assessed	Not Assessed
Papaveraceae	*Argemone ochroleuca*	x	x		x	No	No	Not Assessed	Not Assessed
Poaceae	*Cenchrus ciliaris*	x	x		x	No	No	High	Rapid
	Cenchrus echinatus	x	x			No	No	Medium	Rapid
	Cenchrus setiger		x		x	No	No	High	Rapid
	Chloris barbata	x	x			No	No	High	Rapid
	Chloris virgata	x	x		x	No	No	High	Rapid
	Digitaria ciliaris	x	x		x	No	No	Low	Slow
	Echinochloa colona	x	x		x	No	No	High	Rapid
	Melinis repens		x		x	No	No	Not Assessed	Not Assessed

Family	Taxon	Source				DP	WoNS	Ecological Impact	Invasiveness
		NM	ALA	WAOL	BHP				
Poaceae cont.	*Paspalum dilatatum*		x			No	No	Not Assessed	Not Assessed
	Setaria verticillata	x	x		x	No	No	High	Rapid
Polygonaceae	*Rumex vesicarius*	x	x		x	No	No	Not Assessed	Not Assessed
Portulacaceae	*Portulaca pilosa*	x				No	No	Not Assessed	Not Assessed
Primulaceae	*Lysimachia arvensis*				x	No	No	Not Assessed	Not Assessed
Rhamnaceae	*Ziziphus mauritiana*			x		Yes	No	Not Assessed	Not Assessed
Rosaceae	*Rubus anglocandicans*			x		Yes	Yes	Not Assessed	Not Assessed
	Rubus laudatus			x		Yes	Yes	Not Assessed	Not Assessed
	Rubus rugosus			x		Yes	Yes	Not Assessed	Not Assessed
	Rubus ulmifolius			x		Yes	Yes	Not Assessed	Not Assessed
Solanaceae	*Datura leichhardtii* subsp. *leichhardtii*	x	x		x	No	No	Unknown	Unknown
	Solanum elaeagnifolium			x		Yes	Yes	Not Assessed	Not Assessed
	Solanum linnaeanum			x		Yes	No	Not Assessed	Not Assessed
	Solanum nigrum	x	x		x	No	No	Low	Rapid
Tamaricaceae	*Tamarix aphylla*			x		Yes	Yes	High	Rapid
Verbenaceae	*Lantana camara*			x		Yes	Yes	Not Assessed	Not Assessed
Zygophyllaceae	*Tribulus terrestris*		x		x	No	No	Unknown	Moderate

Appendix E: Likelihood of Occurrence Assessment

Taxon	Conservation code			Habit and habitat	Habitat within Study Area	Within current known distribution	Proximity from Study Area	Source	Post-survey likelihood
	DBCA	BC Act	EPBC Act						
Pre-survey likelihood - Confirmed									
Eremophila sp. West Angelas (S. van Leeuwen 4068)	P2			Spindly shrub, 0.4-3 m high. Skeletal brown-red soil or loam. Hill slopes and summits.	Yes	Yes	Within	A	Confirmed - by current survey
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708)	P2			Erect slender shrub, 1-3 m high. Fl. pale purple. Loamy skeletal soils. Gorge with ironstone outcropping, gullies, drainage line.	Yes	Yes	Within	A	Confirmed - by current survey
Triodia karijini	P2			Hummock grass to 0.9 m high. Steep hillslopes, hillcrests, ironstone outcrops on grey-brown silty loam	Yes	Yes	Within	A	Confirmed - by current survey
Aristida jerichoensis var. *subspinulifera*	P3			Compactly tufted perennial, grass-like or herb, 0.3-0.8 m high, lemma groove muricate. Hardpan plains.	Yes	Yes	Within	^A, L, H, O	Confirmed - by current survey
Aristida lazaridis	P3			Tufted perennial, grass-like or herb, 0.4-1.5 m high. Fl. green/purple, Apr. Sand or loam.	Yes	Yes	Within	^A, C, F, L, P, Q, R	Confirmed - by current survey
Dampiera metallorum	P3			Rounded, multistemmed perennial, herb, to 0.5 m high. Fl. blue, Apr or Jun to Oct. Skeletal red-brown gravelly soil over banded ironstone. Steep slopes, summits of hills.	Yes	Yes	Within	^A, O	Confirmed
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109)	P3			Tussock-forming perennial, grass-like or herb, to 0.3 m high. Fl. Sep. Red-brown skeletal soils, ironstone. Steep slopes, summits.	Yes	Yes	Within	A	Confirmed - by current survey
Eremophila naaykensii	P3			Erect shrub, 1-3 m high. Fl. White/pale blue. Red brown sandy clay loam. Upper slopes, gullies, gorges.	Yes	Yes	Within	D	Confirmed - by current survey
Goodenia lyrata	P3			Prostrate herb, with lyrate leaves. Fl. yellow, Aug. Red sandy loam. Near claypan	Yes	Yes	Within	A	Confirmed
Goodenia sp. East Pilbara (A.A. Mitchell PRP 727)	P3			Open, erect annual or biennial, herb, to 0.2 m high. Fl. yellow. Red-brown clay soil, calcrete pebbles. Low undulating plain, swampy plains.	Yes	Yes	Within	A, L, R, U	Confirmed
Grevillea saxicola	P3			Tree or shrub, to 8 m high, rough bark on trunks and stems. Fl. creamy white. Skeletal red brown sandy loam with ironstone pebble cover. Rocky gully, drainage lines, steep cliff, low rocky hills.	Yes	Yes	Within	^A, O	Confirmed
Indigofera gilesii	P3			Shrub, to 1.5 m high. Fl. purple-pink, May or Aug. Pebbly loam. Amongst boulders & outcrops, hills.	Yes	Yes	Within	A	Confirmed - by current survey
Oxalis sp. Pilbara (M.E. Trudgen 12725)	P3			Annual herb, 0.1-0.3 m high. Fl. Yellow. Brown sandy loam or clay. Gorge, ironstone outcrops, gully, shaded areas, creeklines.	Yes	Yes	Within	A	Confirmed - by current survey
Pilbara trudgenii	P3			Gnarled, aromatic shrub, to 1 m high. Fl. Sep. Skeletal, red stony soil over ironstone. Hill summits, steep slopes, screes, cliff faces.	Yes	Yes	Within	^A, O	Confirmed - by current survey
Rhagodia sp. Hamersley (M. Trudgen 17794)	P3			Tall spindly shrub, 1.5-4 m high. Fl. yellow. Red brown sandy loam or clay, ironstone plain. Undulating plains, floodplain.	Yes	Yes	Within	^A, B, C, H, K, L, O, Q, T, U	Confirmed - by current survey
Rostellularia adscendens var. *latifolia*	P3			Herb or shrub, 0.1-0.3 m high. Fl. blue-purple-violet, Apr to May. Ironstone soils. Near creeks, rocky hills.	Yes	Yes	Within	^A, E, F, H, J, M, Q, R, T	Confirmed - by current survey
Solanum kentrocaule	P3			Spiny, erect perennial shrub, to 0.7 m high. Fl. purple. Steep rocky gullies, gorges, outcrops, cliffs.	Yes	Yes	Within	A	Confirmed - by current survey
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	P3			Tussocky perennial, grass-like or herb, 0.9-1.8 m high. Fl. Aug. Red clay. Clay pan, grass plain.	Yes	Yes	Within	^A, C, O	Confirmed - by current survey
Triodia sp. Mt Ella (M.E. Trudgen 12739)	P3			Perennial, grass-like or herb, 0.4 m high. Light orange-brown, pebbly loam. Amongst rocks & outcrops, gully slopes.	Yes	Yes	Within	A	Confirmed - by current survey

Taxon	Conservation code			Habit and habitat	Habitat within Study Area	Within current known distribution	Proximity from Study Area	Source	Post-survey likelihood
	DBCA	BC Act	EPBC Act						
Vittadinia sp. Coondewanna Flats (S. van Leeuwen 4684)	P3			Erect annual herb, 0.3-1 m high. Fl. cream. Red-brown sandy loam. Drainage areas, floodplains, flat and/or stony plains.	Yes	Yes	Within	A	Confirmed - by current survey
Xerochrysum boreale	P3			Perennial, erect shrub, 0.15-1 m high. Flowers yellow. Redbrown clay loam. Stony plain.	Yes	Yes	Within	A	Confirmed
Acacia bromilowiana	P4			Tree or shrub, to 12 m high, bark dark grey, fibrous; inflorescence in spikes. Fl. yellow/pink, Jul to Aug. Red skeletal stony loam, orange-brown pebbly, gravel loam, laterite, banded ironstone, basalt. Rocky hills, breakaways, scree slopes, gorges, creek beds.	Yes	Yes	Within	^A, G, O, Q	Confirmed
Eremophila magnifica subsp. *magnifica*	P4			Shrub, 0.5-1.5 m high. Fl. blue, Aug to Nov. Skeletal soils over ironstone. Rocky screes.	Yes	Yes	Within	^A, I, L, O, Q, T	Confirmed - by current survey
Lepidium catapycnon	P4			Open, woody perennial, herb or shrub, 0.2-0.3 m high, stems zigzag. Fl. white, Oct. Skeletal soils. Hillsides.	Yes	Yes	Within	^A, L, M, P, U	Confirmed - by current survey
Ptilotus mollis	P4			Compact, perennial shrub, to 0.5 m high, soft grey foliage. Fl. white/pink, May or Sep. Stony hills and screes.	Yes	Yes	Within	^A, M	Confirmed
Sida sp. Barlee Range (S. van Leeuwen 1642)	P4			Spreading shrub, to 0.5 m high. Fl. yellow, Aug. Skeletal red soils pockets. Steep slope.	Yes	Yes	Within	^A, E, F, G, L, N	Confirmed - by current survey
Pre-survey likelihood – Highly Likely									
Dolichocarpa sp. Hamersley Station (A.A. Mitchell PRP 1479)	P3			Spreading annual, herb, 0.05-0.1 m high. Fl. blue, Mar, May-Jul, Sep. Cracking clay, basalt. Gently undulating plain with large surface rocks, flat crabholed plain.	Yes	Yes	0.7 km S	A	Possible
Olearia mucronata	P3			Densely branched, unpleasantly aromatic shrub, 0.6-1 m high. Fl. white & yellow, Aug to Dec or Jan. Schistose hills, along drainage channels.	Yes	Yes	0.4 km S	A	Possible
Triodia basitricha	P3			Hummock grass to 0.8 m high, non-resinous. Fl. Mar-Jul. Red/brown clay loam over ironstone. Floodplains, flat hill crest, lower slopes.	Yes	Yes	1.2 km NNW	A	Unlikely
Pre-survey likelihood – Likely									
Eremophila magnifica subsp. *velutina*	P3			Shrub, 0.5-1.5 m high. Fl. blue-purple, Aug to Sep. Skeletal soils over ironstone. Summits.	Yes	Yes	0.5 km N	A	Confirmed - by current survey
Arthropodium vanleeuwenii	P2			Perennial herb, 0.3-0.9 m high. Fl. Mauve, Sep. Red-brown loam soil. Moderately steep, south facing slopes of banded and Brockman iron formations.	Yes	Yes	2.1 km W	A	Possible
Eremophila pusilliflora	P2			Low spreading shrub, to 0.8 m high. Fl. purple, Mar-Jul. Red/brown loam or clay. Drainage lines, broad depressions, flood plains.	Yes	Yes	5.3 km W	A	Possible
Acacia effusa	P3			Low, dense, spreading, somewhat viscid shrub, 0.3-1 m high, bark 'minni-ritchi'. Fl. yellow, May to Aug. Stony red loam. Scree slopes of low ranges	Yes	Yes	2.2 km N	A	Possible
Isotropis parviflora	P3			Shrub, 0.1 m high. Fl. white/pink, Mar. Valley slope of ironstone plateau.	Yes	Yes	1.2 km NNW	^A, M	Possible
Streptoglossa sp. Cracking clays (S. van Leeuwen *et al.* PBS 7353)	P3			Erect annual herb. Fl. pink, Jun or Sep. Red/brown cracking clays. Colluvial and alluvial gravels in floodplains.	Yes	Yes	1.1 km S	A	Possible

Taxon	Conservation code			Habit and habitat	Habitat within Study Area	Within current known distribution	Proximity from Study Area	Source	Post-survey likelihood
	DBCA	BC Act	EPBC Act						
Pre-survey likelihood – Possible									
Ipomoea racemigera	P3			Creeping annual, herb or climber. Fl. white.	Possible	Yes	14.2 km W	^A, R	Confirmed - by current survey
Rhodanthe ascendens	P1			Ascending annual, herb, to 0.1 m high. Fl. yellow, Aug. Clay. Roadside verge.	Possible	Adjacent	4.4 km W	A	Possible
Tetratheca fordiana	P2			Dwarf shrub, 0.2-0.4 m high. Fl. dark pink or lilac, Apr-May or Jul. Skeletal soils/ironstone. Vertical cliff face and upper rocky ridgelines, breakaways.	Possible	Yes	6.7 km S	A	Possible
Euphorbia inappendiculata var. *queenslandica*	P3			Spreading, procumbent herb, to 0.4 m high. Fl. pink, Aug. Clay soils. Among broken rocky screes	Possible	Yes	12.3 km SSW	A	Possible
Euphorbia stevenii	P3			Somewhat succulent perennial, herb, 0.1-0.5 m high. Clay, sandy soils.	Yes	Yes	5.6 km S	A	Possible
Synostemon hamersleyensis	T			Shrub, 0.5-1 m high. Fl. Yellow-green, red, Aug or Oct-Nov. Red sandy loam. Steep slopes, ironstone gorges.	Possible	Adjacent	13.4 km NNE	A	Unlikely
Thryptomene wittweri	T	VU		Spreading or rounded shrub, 0.5-1.5(-2.1) m high. Fl. white-cream, Apr or Jul or Aug. Skeletal red stony soils. Breakaways, stony creek beds.	Yes	Adjacent	5 km WNW	A	Unlikely
Teucrium pilbaranum	P2			Upright shrub, 0.2 m high. Fl. white, May or Sep. Clay. Crab hole plain in a river floodplain, margin of calcrete table	Possible	Yes	0.1 km N	A	Unlikely
Acacia daweana	P3			Spreading shrub, 0.3-1.5(-2) m high. Fl. yellow, Jul to Sep. Stony red loamy soils. Low rocky rises, along drainage lines.	Yes	Adjacent	18.6 km W	A	Unlikely
Acacia subtiliformis	P3			Spindly, slender, erect shrub, to 3.5 m high, phyllodes green; inflorescence in heads to 6 mm diameter; peduncles red. Fl. yellow, Jun. On rocky calcrete plateau.	Possible	Yes	8.5 km ESE	^A, L, M, U	Unlikely
Amaranthus centralis	P3			Erect, annual herb (with pink stems), to 0.6 m high. Fl. green/white, Apr-Aug. Red sandy clay. Sand plains, granite outcrops.	Possible	Yes	1.4 km WNW	^A, R	Unlikely
Euphorbia clementii	P3			Erect annual herb, to 0.6 m high. Fl, white, May-Jul. Gravelly hillsides, stony grounds.	Possible	Adjacent	5.6 km S	A	Unlikely
Fimbristylis sieberiana	P3			Shortly rhizomatous, tufted perennial, grass-like or herb (sedge), 0.25-0.6 m high. Fl. brown, May to Jun. Mud, skeletal soil pockets. Pool edges, sandstone cliffs	Possible	Yes	0.4 km SE	^A, F, G, N, L, S, U	Unlikely
Gymnanthera cunninghamii	P3			Erect shrub, 1-2 m high. Fl. cream-yellow-green, Jan to Dec. Sandy soils.	Possible	Yes	10.9 km ESE	^A, F	Unlikely
Iotasperma sessilifolium	P3			Erect herb, up to 0.4m high. Fl. pink-mauve, yellow, Jul-Sep. Cracking clay, black loam. Edges of waterholes, plains.	Yes	Adjacent	15.5 km NNE	A	Unlikely
Sida sp. Hamersley Range (K. Newbey 10692)	P3			Low, spreading shrub, to 0.5 m high. Fl. yellow, May or Aug-Oct. Brown loamy soil. Base of breakaways, gullies, hill summits.	Possible	Adjacent	12.8 km S	A	Unlikely
Stackhousia clementii	P3			Dense broom-like perennial, herb, to 0.45 m high. Fl. green/yellow/brown, Feb-Apr, Jun, Aug-Sep, Nov. Skeletal soils. Sandstone hills	Possible	Yes	10 km NNW	A	Unlikely
Stylidium weeliwolli	P3			Annual, herb, 0.1-0.25 m high, throat appendages 4, rod-shaped. Fl. pink & red, Aug to Sep. Gritty sand soil, sandy clay. Edge of watercourses	Possible	Yes	10.5 km ESE	^A, N, U	Unlikely

Taxon	Conservation code			Habit and habitat	Habitat within Study Area	Within current known distribution	Proximity from Study Area	Source	Post-survey likelihood
	DBCA	BC Act	EPBC Act						
Swainsona thompsoniana	P3			Prostrate annual herb, to 0.2m high, Fl. Blue, Apr-Aug. Higher altitude floodplains, top of hilltops and cracking clays on red-brown clay.	Possible	Yes	5.6 km S	A	Unlikely
Cladium procerum	P2			Densely tufted perennial, grass-like or herb (sedge), 2 m high. Fl. Nov. Perennial pools.	Possible	Yes	11.1 km ESE	A	Highly Unlikely
Gompholobium karijini	P2			Shrub, to 1 m high. Fl. yellow/green, Aug-Sep. Red/brown gravelly loam or clay. Undulating hills, hilltops, drainage lines.	Yes	No	27 km WNW	A	Highly Unlikely
Pre-survey likelihood – Unlikely									
Calotis squamigera	P1			Procumbent annual, herb, to 0.21 m high. Fl. yellow, Jul. Pebbly loam	No	No	23.2 km NE	A	Unlikely
Paranotis sp. Pilbara (H. Ajduk HAOP04a)	P1			Erect ephemeral herb, to 0.3 m high. Fl. white, Feb-Mar. Raised banks of shallow drainage lines on exposed hardpan.	Possible	No	49 km ESE	A	Unlikely
Adiantum capillus-veneris	P2			Rhizomatous, perennial, herb or (fern), 0.1-0.2 m high, frond 1-2-pinnate; stipe blackish-brown, hard, glossy; sori marginal between sinuses, oblong. Moist, sheltered sites in gorges and on cliff walls.	Possible	No	24.9 km NNW	A	Unlikely
Kohautia australiensis	P2			Erect sparsely or much-branched annual, herb, 0.1-0.5 m high. Fl. blue. Low calcrete outcrops.	Possible	Adjacent	17 km NE	A	Unlikely
Dampiera anonyma	P3			Multistemmed perennial, herb, to 0.5(-1) m high. Fl. blue-purple, Jun to Sep. Skeletal red-brown to brown gravelly soil over banded ironstone, basalt, shale and jaspilite. Hill summits, upper slopes above 1000m.	Possible	No	39.6 km WNW	A	Unlikely
Euphorbia australis var. *glabra*	P3			Annual prostrate herb, leaves green with a red tinged margins. Drainage lines on clay loam and river sand.	Possible	Adjacent	18.2 km NE	A	Unlikely
Euphorbia inappendiculata var. *inappendiculata*	P3			Prostrate annual herb, to 0.1 m high. Red brown clay loam. Flat plain, cracking clay floodplain, gentle slopes.	Possible	Yes	32.7 km NNE	A	Unlikely
Geijera salicifolia	P3			Tree, 1.5-6 m high. Fl. white, Sep. Skeletal soils, stony soils. Massive rock scree, gorges.	Possible	No	37.9 km WNW	A	Unlikely
Dicrastylis mitchellii	P1			Shrub, to about 0.3 m high. Sand or clay soils. Around dunes.	No	No	36.7 km SW	A	Highly Unlikely
Hibiscus sp. Mt Brockman (E. Thoma ET 1354)	P1			Spindly, erect shrub, to 3.5 m high. Fl. Mauve, May, Jul-Aug or Nov. Steep, deeply incised drainage gullies, base of breakaways.	Possible	No	47.4 km NNW	A	Highly Unlikely
Indigofera ixocarpa	P2			Shrub, to 1 m high. Fl. pink, May. Skeletal red soils over massive ironstone.	Possible	No	37.6 km WNW	A	Highly Unlikely
Pentalepis trichodesmoides subsp. *hispida*	P2			Upright, perennial shrub, to 1.3 m high. Fl. yellow. Red/brown clay loam. Undulating hills and crests, ridge summits, slopes of low hills.	Possible	No	25.7 km WSW	A	Highly Unlikely
Scaevola sp. Hamersley Range basalts (S. van Leeuwen 3675)	P2			Shrub, to 1 m high. Fl. Jul to Aug. Skeletal, brown gritty soil over basalt. Summits of hills, steep hils.	Possible	No	39.2 km W	A	Highly Unlikely
Ampelopteris prolifera	P3			Rhizomatous, perennial, herb or (fern), to 4 m high, fronds 1-pinnate, pinnae shallowly lobed; buds on pinnae can form new plants; sori lacking indusia. Near water or in wet ground.	Possible	No	25 km NNW	A	Highly Unlikely
Atriplex flabelliformis	P3			Monoecious, erect, rounded perennial, herb, to 0.35 m high. Clay loam, loam. Saline flats or marshes.	No	No	35.2 km N	A	Highly Unlikely
Eremophila spongiocarpa	P3			Compact, succulent-leaved shrub, to 1 m high. Fl. white, May or Sep. Weakly saline alluvial plain on margins of marsh.	No	No	28.5 km N	A	Highly Unlikely

Taxon	Conservation code			Habit and habitat	Habitat within Study Area	Within current known distribution	Proximity from Study Area	Source	Post-survey likelihood
	DBCA	BC Act	EPBC Act						
Glycine falcata	P3			Mat-forming perennial, herb, to 0.2 m high. Fl. blue-purple, May or Jul. Black clayey sand. Along drainage depressions in crabhole plains on river floodplains.	Possible	Adjacent	15.4 km NE	A	Highly Unlikely
Rhynchosia bungarensis	P4			Compact, prostrate shrub, to 0.5 m high. Fl. yellow. Pebbly, shingly coarse sand amongst boulders. Banks of flow line in the mouth of a gully in a valley wall. Granite	Possible	Adjacent	17 km NNW	A	Highly Unlikely
Pre-survey likelihood – Highly Unlikely									
Androcalva adenothalia	T	CR		Low, prostrate shrub, to 0.1 m high. Fl. white/pink. Orange/brown sandy gravelly loam. Plains.	No	No	~ 700 km SW	V, W	Highly Unlikely
Isotropis forrestii	P1			Erect shrub, 0.4-1.5 m high. Fl. yellow/orange & red, Apr to Sep or Dec. Stony clay loam, sandy alluvium. Along drainage lines.	No	No	97.6 km WSW	V, W	Highly Unlikely
Lindernia sp. Pilbara (M.N. Lyons & L. Lewis FV 1069)	P1			Erect, annual herb. Claypans, low dunes/slopes, waters edge.	No	No	44.9 km NNE	A	Highly Unlikely
Samolus sp. Fortescue Marsh (A. Markey & R. Coppen FM 9702)	P1			Erect, perennial, straggly shrub, to 1.5 m high. Fl. white. Red/brown clay loam. Floodplains, flat lake margins, banks of permanent freshwater pools.	No	No	48.6 km NNW	A	Highly Unlikely
Tecticornia globulifera	P1			Low chenopod shrub, 0.4 m high. Salt lakes, marshes	No	No	45.1 km N	A	Highly Unlikely
Tecticornia sp. Christmas Creek (K.A. Shepherd & T. Colmer *et al.* KS 1063)	P1			Low, erect perennial shrub, 0.3-1.1 m high. Red/brown sandy clay loam. Undulating plains, flats, floodplains. Widespread across the saline flats of the Fortescue Marsh on red-brown clay.	No	No	40.6 km NNW	A	Highly Unlikely
Dicladanthera glabra	P2			Spreading perennial, herb or shrub, to 0.6(-1) m high. Fl. white/white-blue, Apr or Aug to Oct. Alluvium. Along watercourses, near rock pools.	No	No	50.4 km NW	V, W	Highly Unlikely
Rhodanthe frenchii	P2			Upright annual, herb, to 0.35 m high. Fl. yellow, Aug to Oct. Stony hills, rocky river banks & outcrops.	No	No	~ 160 km WSW	V, W	Highly Unlikely
Thryptomene stenophylla	P2			Spreading shrub, 0.3-1.2 m high. Fl. pink-purple, Jun or Aug. Red or yellow sand, loam. Limestone hills, sandplains.	No	No	~ 650 km SW	V, W	Highly Unlikely
Dysphania congestiflora	P3			Erect annual herb, 0.05-0.1 m tall. Deep red-brown saline clays. Edge of saline floodplains and lake beds, seasonally inundated flats	No	No	40.5 km NNW	A	Highly Unlikely
Eleocharis papillosa	P3			Annual, herb. Fl. brown, Nov. Red clay over granite, open clay flats. Claypans.	No	Yes	47.9 km NNE	A	Highly Unlikely
Eragrostis sp. Erect spikelets (P.K. Latz 2122)	P3			Tufted, erect perennial grass, to 0.3 m high. Calcrete rise, near samphire flats.	No	Yes	48.5 km NNW	A	Highly Unlikely
Eremophila forrestii subsp. *viridis*	P3			Much-branched shrub, ca 1 m high. Fl. pink-cream, Aug.	No	No	315 km WNW	K	Highly Unlikely
Eremophila rigida	P3			Bushy shrub, 0.3-4 m high. Fl. cream, Sep. Red sand alluvium. Hardpan plains, stony clay depressions.	No	No	46.9 km S	A	Highly Unlikely
Nicotiana umbratica	P3			Erect, short-lived annual or perennial, herb, 0.3-0.7 m high. Fl. white, Apr to Jun. Shallow soils. Rocky outcrops.	No	No	90 km N	Q	Highly Unlikely
Tecticornia medusa	P3			Erect shrub to 0.7 m. Articles bright green. Flat saline floodplain. Red clay. Samphire flats	No	No	45.5 km ENE	A	Highly Unlikely
Vittadinia pustulata	P3			Low annual, herb (sometimes persisting as an under-shrub), 0.1-0.3 m high. Fl. Sep.	No	No	~ 250 km SE	V, W	Highly Unlikely

Taxon	Conservation code			Habit and habitat	Habitat within Study Area	Within current known distribution	Proximity from Study Area	Source	Post-survey likelihood
	DBCA	BC Act	EPBC Act						
Eremophila youngii subsp. *lepidota*	P4			Dense, spreading shrub, (0.2-)1-3 m high. Fl. purple-red-pink, Jan or Mar or Jun or Aug to Sep. Stony red sandy loam. Flats plains, floodplains, sometimes semi-saline, clay flats.	No	Yes	40.3 km NNE	^A, K	Highly Unlikely

^Denotes reference closest to the Study Area, A= Database searches (TPFL or WAH), B= AECOM (2020) , C= Astron (2011), D= Astron (2018), E= Biologic (2017), F= Biologic (2021), G= (Biota, 2017), H= (Ecologia, 2009), I= (ENV, 2008a), J= (ENV, 2008c), K= (Mattiske, 2008), L= Onshore (2011a), M= (Onshore, 2011b), N= (Onshore, 2012a), O= (Onshore, 2012b), P= (Onshore, 2013b), Q= (Onshore, 2014), R= (Onshore, 2015), S= (Onshore, 2020), T= (Woodman, 2009), U= (Woodman, 2010);V = ALA (2021); W = DBCA (2021a)

Appendix F: Sample sites

Central Pilbara Hub **Site CPH-001**



Date	13/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	715730 mE;	7469942 mN
	119.102640 E	-22.864491 S
Veg Condition	Very Good	
Soil	Sandy Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Themeda triandra*, *Eulalia aurea* low open tussock grassland with *Eucalyptus victrix* low scattered trees over *Senna artemisioides* subsp. × *artemisioides*, *Eremophila longifolia* mid sparse shrubland.	
Notes	100m x 25m, bearing 80. Possible fire or flood disturbance at end of quadrat.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Indet	0.1	0.1		
Acacia coriacea subsp. *pendens*	0.1	2.3		
Acacia dictyophleba	0.1	1.8	CPH036-06	
Acacia maitlandii	1	2.6		
Acacia tumida var. *pilbarensis*	0.1	1	CPH008-05	
Afrohybanthus aurantiacus	0.1	0.3		
Alternanthera nana	0.1	0.2		
Androcalva luteiflora	0.1	1.2		
Aristida inaequiglumis	0.1	0.3	CPH036-08	
Aristida lazaridis (P2)	0.1	0.4		
Arivela viscosa	0.1	0.2		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.1	CPH001-01	
Chrysopogon fallax	0.1	0.3	CPH001-	
Corchorus tridens	0.5	0.1	CPH001-06	
Corymbia hamersleyana	1	8		
?*Crotalaria medicaginea*	0.1	0.2	CPH001-2	
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	0.1	0.4		
Digitaria brownii	0.1	0.3	CPH036-12	
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.4	CPH036-10	
Eremophila longifolia	2	3		
Eriachne benthamii	0.1	0.3	CPH008-01	
Eucalyptus victrix	1	15		
Eulalia aurea	2	0.4		
Euphorbia australis	0.1	0.1		
Euphorbia biconvexa	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Glycine canescens	0.1	0.1		
Goodenia muelleriana	0.1	0.1	CPH001-05	
Gossypium australe	0.1	0.2		
Gossypium robinsonii	0.1	2		
Grevillea berryana	0.1	3.5	CPH-029-01	
Hibiscus sturtii var. *platychlamys*	0.1	0.2	CPH036-16	
Indigofera rugosa	0.1	0.5		
Isotropis iophyta	0.1	0.5		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Paraneurachne muelleri	0.1	0.2		
Pterocaulon sphacelatum	0.1	0.1		
Rhynchosia minima	0.1	0.1		
Santalum lanceolatum	0.1	1.4		
Senna artemisioides subsp. ×*artemisioides*	2	1.6		
Senna notabilis	0.1	0.1		
Sida fibulifera	0.1	0.1	CPH001-07	
Sida sp. L (A.M. Ashby 4202)	0.1	0.1	CPH001-03	
Solanum lasiophyllum	0.1	0.3	CPH-034-03	
Solanum sp. Indet	0.1	0.4	CPH001-04	
Tephrosia sp. Newman (A.A. Mitchell PRP 29)	0.1	0.2	CPH001-	
Themeda triandra	5	0.4		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.1		
Triodia pungens	0.1	0.4		

Central Pilbara Hub **Site CPH-002**



Date	13/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	715159 mE;	7469474 mN
	119.097135 E	-22.868793 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Senna glutinosa* subsp. *glutinosa* mid scattered shrubs.	
Notes	100m x 25m, bearing 70.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.5		
Acacia ancistrocarpa	0.1	1.1		
Acacia bivenosa	0.1	1.3		
Acacia dictyophleba	0.1	1.2		
Acacia hilliana	0.1	0.8		
Acacia monticola	0.1	1.2		
Acacia pruinocarpa	0.1	0.8		
Aristida contorta	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1	CPH022.05	
Eriachne mucronata	0.1	0.3		
Eriachne pulchella subsp. *pulchella*	0.1	0.1	CPH002-01	
Eucalyptus leucophloia subsp. *leucophloia*	0.1	3		
Evolvulus alsinoides	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH002-02	
Goodenia muelleriana	0.1	0.1		
Ptilotus rotundifolius	0.1	0.1		
Senna artemisioides subsp. *oligophylla*	0.1	0.7		
Senna glutinosa subsp. *glutinosa*	1	1.6		
Senna glutinosa subsp. *pruinosa*	0.1	3		
Stemodia sp. Indet	0.1	0.1		
Triodia vanleeuwenii	35	0.5		
Triodia wiseana	0.1	0.3		

Central Pilbara Hub **Site CPH-003**



Date	13/03/2022	
Described by	Emily Eakin-Busher, Ryonen Butcher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	716024 mE;	7470676 mN
	119.105397 E	-22.857827 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia deserticola* subsp. *deserticola* low isolated clumps of trees over *Senna ferraria*, *Acacia hilliana* low sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.5		
Acacia hilliana	1	1		
Corymbia deserticola subsp. *deserticola*	1	4		
Eremophila latrobei	0.1	1		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	6		
Fimbristylis dichotoma	0.1	0.05	CPH003-02	
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.2		
Ptilotus calostachyus	0.1	0.2		
Santalum lanceolatum	0.1	0.8		
Senna ferraria	0.1	1.5		
Senna glutinosa subsp. *pruinosa*	0.1	1		
Themeda triandra	0.1	0.3		
Triodia vanleeuwenii	45	0.3	CPH003-01	

Central Pilbara Hub **Site CPH-004**



Date	13/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	715903 mE;	7471176 mN
	119.104151 E	-22.853329 S
Veg Condition	Excellent	
Soil	Sandy Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Gully	
Vegetation	*Triodia wiseana* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* low open woodland over *Acacia hilliana* low isolated shrubs.	
Notes	100m x 25m, bearing 285.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
?*Dolichocarpa crouchiana*	0.1	0.1		
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia hamersleyensis	0.1	1		
Acacia hilliana	0.1	0.3		
Acacia maitlandii	0.1	0.4		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sp. Indet	0.1	0.05		
Clerodendrum tomentosum var. *lanceolatum*	0.1	0.2	CPH012-08	
Corchorus lasiocarpus	0.1	0.4		
Corymbia hamersleyana	0.1	4		
Duperreya commixta	0.1	0.1		
Eremophila ?jucunda	0.1	0.6	CPH004-01	
Eriachne lanata	0.1	0.2	CPH012-09	
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	1	5		
Euphorbia biconvexa	0.1	0.2		
Fimbristylis dichotoma	0.1	0.1	CPH003-02	
Gomphrena cunninghamii	0.1	0.1	CPH004-02	
Hakea chordophylla	1	0.2		
Hibiscus coatesii	0.1	0.3	CPH024-01	
Jasminum didymum subsp. *lineare*	0.1	0.1		
Polycarpaea longiflora	0.1	0.1		
Ptilotus astrolasius	0.1	0.5		
Senna glutinosa subsp. *glutinosa*	0.1	0.6		
Solanum lasiophyllum	0.1	0.2	CPH034-03	
Solanum sp. Indet	0.1	0.1	CPH001-04	
Themeda triandra	0.1	0.3		
Triodia wiseana	60	0.5		

Central Pilbara Hub **Site CPH-005**



Date	13/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	715242 mE;	7470067 mN
	119.097870 E	-22.863427 S
Veg Condition	Very Good	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Minor Drainage Line	
Vegetation	*Themeda triandra* mid open tussock grassland with *Acacia maitlandii* tall open shrubland with *Corymbia hamersleyana* low open woodland over *Triodia wiseana*, *Triodia pungens* low sparse hummock grassland.	
Notes	100m x 25m, bearing 220.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	0.1	1.4		
Acacia dictyophleba	0.1	2		
Acacia inaequilatera	0.1	0.4		
Acacia maitlandii	12	3		
Acacia pachyacra	0.1	1.2		
Alternanthera denticulata var. denticulata	0.1	0.2	CPH031.06	
Androcalva luteiflora	0.1	1.6		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.1	CPHR001.07	
Corchorus tridens	0.1	0.1		
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	0.1	0.4		
Duperreya commixta	0.1	0.1		
Eremophila longifolia	0.1	0.7		
Eriachne mucronata	1	0.3		
Eucalyptus xerothermica	1	5		
Evolvulus alsinoides	0.1	0.1		
Goodenia microptera	0.1	0.1		
Goodenia muelleriana	0.1	0.2		
Gossypium australe	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	1.2		
Melhania oblongifolia	0.1	0.1	CPH021.01	
Nellica maderaspatensis	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.2	CPH031.09	
Ptilotus calostachyus	0.1	0.4		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Rhynchosia minima	0.1	0.1		
Senna artemisioides subsp. *oligophylla*	0.5	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida fibulifera	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.3	CPH030-05	
Solanum cleistogamum	0.1	0.1		
Solanum lasiophyllum	0.1	0.2		
Themeda triandra	15	0.5		
Trigastrotheca molluginea	0.1	0.1		
Triodia pungens	0.1	0.4		
Triodia wiseana	7	0.5		
Vigna lanceolata	0.1	0.1		

Central Pilbara Hub **Site CPH-006**



Date	13/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	715341 mE;	7469683 mN
	119.098885 E	-22.866887 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Basalt Outcrops	
Vegetation	*Triodia wiseana* mid hummock grassland with *Acacia inaequilatera*, *Hakea lorea* subsp. *lorea* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia inaequilatera	1	2.8		
Acacia maitlandii	0.1	1.3		
Aristida contorta	0.1	0.2		
Cheilanthes brownii	0.1	0.2	CPH-14-02	
Corymbia hamersleyana	0.1	1.6		
Cymbopogon sp. Indet	0.1	0.2		Insufficient material
Eucalyptus leucophloia subsp. *leucophloia*	0.1	1.7		
Indigofera rugosa	0.1	0.7		
Paraneurachne muelleri	0.1	0.3		
Rhynchosia minima	0.1	0.1		
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Senna glutinosa subsp. *glutinosa*	0.1	1.2		
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	0.1	0.4	CPH015.03	
Triodia wiseana	55	0.6		

Central Pilbara Hub **Site CPH-007**



Date	13/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	715228 mE;	7469050 mN
	119.097871 E	-22.872611 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Acacia adoxa* var. *adoxa, Acacia hilliana* low open shrubland with *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* low open woodland over *Senna glutinosa* subsp. *glutinosa*, *Senna glutinosa* subsp. *pruinosa*, *Hakea chordophylla* mid isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	5	0.4		
Acacia hilliana	5	0.4		
Acacia pruinocarpa	0.1	1.5		Resprout
Corchorus lasiocarpus	0.1	0.8		
Corymbia hamersleyana	0.1	4		Resprout
Eremophila latrobei	0.1	0.8	CPH007-01	
Eucalyptus leucophloia subsp. *leucophloia*	0.5	4		
Gompholobium oreophilum	0.1	0.4	CPH020-02	
Goodenia triodiophila	0.1	0.2		
Grevillea wickhamii	0.1	0.8		
Hakea chordophylla	0.1	1.5		Resprout
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Senna artemisioides subsp. *helmsii*	0.1	0.2		
Senna glutinosa subsp. *glutinosa*	0.1	1	CPH033-3	
Senna glutinosa subsp. *pruinosa*	0.1	1.5		
Solanum lasiophyllum	0.1	0.4	CPH034-03	
Triodia pungens	0.1	0.3		
Triodia vanleeuwenii	45	0.2	CPH007-02	
Triodia wiseana	0.1	0.3		

Central Pilbara Hub **Site CPH-008**



Date 12/03/2022
Described by Ryonen Butcher, Emily Eakin-Busher
Type Quadrat 100m x 25m
Location MGA Zone 50
714033 mE; 7467752 mN
119.086407 E -22.884481 S
Veg Condition Excellent
Soil Silty Loam
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Medium Drainage Line
Vegetation *Acacia tumida* var. *pilbarensis*, *Grevillea wickhamii*, *Gossypium robinsonii* tall open shrubland over *Acacia maitlandii* low isolated shrubs over *Themeda triandra* low sparse tussock grassland.
Notes 100m x 25m, bearing 130.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	1	CPH024-03	
Acacia maitlandii	1	0.7	CPH036-01	
Acacia tumida var. *pilbarensis*	10	2.5	CPH008-05	
Afrohybanthus aurantiacus	0.1	0.5		
Androcalva luteiflora	1	1.5		
Aristida holathera var. *holathera*	0.1	0.2		
Corymbia hamersleyana	0.1	1		
Cymbopogon ambiguus	0.1	0.4		
Dodonaea lanceolata var. *lanceolata*	0.1	2	Cph028.03	
Duperreya commixta	0.1	0.1		
Eriachne benthamii	0.5	0.4	CPH008-01	
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	8		
Eulalia aurea	0.1	0.4		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Gastrolobium grandiflorum	0.1	1.5	CPH008-04	
Gossypium robinsonii	1	2		
Grevillea wickhamii	1	1.5		
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Petalostylis labicheoides	0.1	3		
Pluchea dentex	0.1	0.2	CPH-35-0-1	
Sida ?sp. Supplejack Station (T.S. Henshall 2345)	0.1	1.8	CPH008-02	
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	1.5	CPH008-03	
Themeda triandra	1	0.4		
Triodia pungens	0.1	0.5		

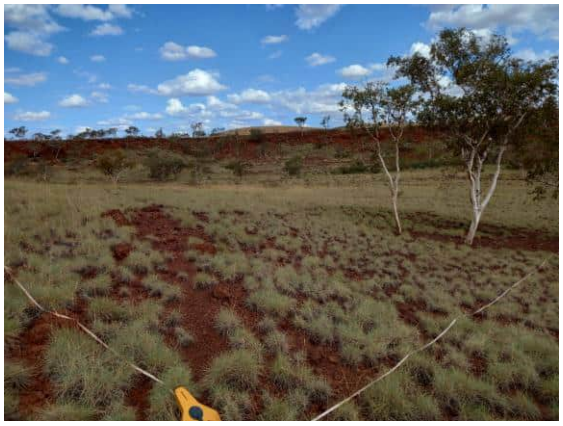
Central Pilbara Hub **Site CPH-009**



Date 12/03/2022
Described by Ryonen Butcher, Emily Eakin-Busher
Type Quadrat 50m x 50m
Location MGA Zone 50
714008 mE; 7467324 mN
119.086221 E -22.888349 S
Veg Condition Excellent
Soil Silty Loam
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Undulating Low Hills
Vegetation *Triodia vanleeuwenii* low hummock grassland with *Corymbia deserticola* subsp. *deserticola* low open woodland over *Grevillea wickhamii*, *Acacia ancistrocarpa*, *Hakea chordophylla* mid to low sparse shrubland over *Acacia adoxa* var. *adoxa* low isolated clumps of shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	5	0.5		
Acacia ancistrocarpa	0.1	1	CPH024-03	
Acacia pruinocarpa	0.1	1		
Acacia tenuissima	0.1	1.3		
Amphipogon sericeus	0.1	0.2	CPH 009-1	
Aristida inaequiglumis	0.1	0.3	CPH036-08	
Corchorus lasiocarpus	0.1	0.6		
Eriachne mucronata	0.1	0.2		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.3		
Grevillea wickhamii	0.5	1.7		
Hakea chordophylla	0.1	1.4		
Indigofera monophylla	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Peripleura obovata	0.1	0.4	CPH 009-2	
Ptilotus calostachyus	0.1	0.4		
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Sida calyxhymenia	0.1	0.5	CPH 009-03	
Triodia vanleeuwenii	60	0.2		

Central Pilbara Hub **Site CPH-010**



Date	12/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	713880 mE;	7468191 mN
	119.084858 E	-22.880538 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	Detritals	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	0.1	0.6		
Acacia tumida var. *pilbarensis*	0.1	1.2		
Eriachne ciliata	0.1	0.3		
Eriachne lanata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	5		
Senna glutinosa subsp. *glutinosa*	0.1	0.9		
Triodia vanleeuwenii	40	0.2		

Central Pilbara Hub **Site CPH-011**



Date	12/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	712986 mE;	7467474 mN
	119.076245 E	-22.887123 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Minor Drainage Line	
Vegetation	*Acacia tumida* var. *pilbarensis*, *Dodonaea lanceolata* var. *lanceolata*, *Acacia monticola* shrubland over *Themeda triandra, Eulalia aurea* mid open tussock grassland with *Corymbia hamersleyana* low woodland.	
Notes	100m x 25m, bearing 30.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.3	CPH031.05	
Acacia adoxa var. *adoxa*	0.1	0.8		
Acacia monticola	1	3		
Acacia pachyacra	0.1	0.5		
Acacia tumida var. *pilbarensis*	30	2.1		
Afrohybanthus aurantiacus	0.1	0.2		
Androcalva luteiflora	0.1	1.8		
Bonamia erecta	0.1	0.3		
Corchorus lasiocarpus subsp. *lasiocarpus*	0.1	0.3	CPH-35-02	
Corymbia hamersleyana	12	5.5		
Cymbopogon sp. Indet	0.1	0.4		Sterile
Dodonaea lanceolata var. *lanceolata*	8	2.8	CPH028.03	
Duperreya commixta	0.1	0.1		
Eremophila latrobei	0.1	0.8		
Eucalyptus gamophylla	0.1	3		
Eulalia aurea	0.1	0.5		
Gastrolobium grandiflorum	0.1	1.4		
Gossypium robinsonii	0.1	3.2		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	1.2		
Paraneurachne muelleri	0.1	0.6		
Petalostylis labicheoides	0.1	3		
Ptilotus exaltatus	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Santalum lanceolatum	0.1	2.3		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.1		
Seringia exastia	0.1	0.6		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.3	CPH-30-05	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Themeda triandra	15	0.6		
Triodia pungens	8	0.6		
Triodia vanleeuwenii	0.1	0.3		

Central Pilbara Hub Site CPH-012



Date	12/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	714308 mE;	7467431 mN
	119.089135 E	-22.887341 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	Quartz	
Fire Age	Recent (0 to 2 yr)	
Habitat	Gully	
Vegetation	*Acacia tumida* var. *pilbarensis*, *Petalostylis labicheoides* tall open shrubland with *Corymbia hamersleyana* low isolated trees over *Grevillea wickhamii*, *Acacia monticola* tall isolated shrubs over *Eriachne mucronata* low isolated clumps of tussock grasses.	
Notes	Quartz, ironstone. Vegetation on edges. 100m x 25m, bearing 0.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.2		
Acacia maitlandii	0.1	0.7	CPH036-01	
Acacia monticola	0.1	2		
Acacia tumida var. *pilbarensis*	20	2.5	CPH008-05	
Afrohybanthus aurantiacus	0.1	0.5		
Androcalva luteiflora	0.1	2		
Aristida holathera var. *holathera*	0.1	0.2		
Bonamia pilbarensis	0.1	0.1	CPH017-07	
Clerodendrum floribundum var. *angustifolium*	0.1	1	CPH012-06	
Clerodendrum tomentosum var. *lanceolatum*	0.1	0.2	CPH012-08	
Corchorus lasiocarpus	0.1	0.3		
Corymbia hamersleyana	1	8		
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	0.1	0.3		
Duperreya commixta	0.1	0.1		
Eragrostis olida	0.1	0.3	CPH012-02	
Eriachne lanata	0.1	0.2	CPH012-09	
Eriachne mucronata	1	0.5		
Euphorbia sp. Indet	0.1	0.1		Sterile
Ficus brachypoda	0.1	3	CPH012-05	
Gossypium robinsonii	0.1	2		
Grevillea wickhamii	0.1	1.9		
Grevillea wickhamii subsp. *aprica*	0.1	3	CPH012-03	
Hibiscus sturtii var. *campylochlamys*	0.1	0.2	CPH012-04	
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Mirbelia viminalis	0.1	0.6		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	4	3.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Santalum lanceolatum	0.1	2.5		
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	1.6	CPH008-03	
Tephrosia densa	0.1	0.2		
Tephrosia virens	0.1	1.9		
Themeda triandra	0.1	0.4		
Triodia pungens	0.1	0.2		
Triodia wiseana	0.1	0.2		
Vincetoxicum lineare	0.1	0.1	CPH012-01	

Central Pilbara Hub **Site CPH-013**



Date	12/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	712673 mE;	7467093 mN
	119.073244 E	-22.890604 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii*, *Triodia wiseana* low open hummock grassland with *Acacia hilliana, Acacia adoxa* var. *adoxa*, *Eremophila latrobei* low sparse shrubland with *Corymbia deserticola* subsp. *deserticola* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia hilliana	1	0.4		
Acacia pruinocarpa	0.1	1.2		
Aristida sp. Indet	0.1	0.2		Sterile
Calytrix carinata	0.1	0.7		
Corymbia deserticola subsp. *deserticola*	1	3.8		
Corymbia hamersleyana	0.1	1.4		
Cymbopogon sp. Indet	0.1	0.2		Sterile
Eremophila latrobei	0.1	0.9		
Euploca pachyphylla	0.1	0.2	CPH013.01	
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.2		
Hakea lorea subsp. *lorea*	0.1	1.3		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0.2		
Ptilotus calostachyus	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.6		
Senna glaucifolia	0.1	1.2	CPH013.02	
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.3		
Triodia vanleeuwenii	20	0.3		
Triodia wiseana	1	0.4		

Central Pilbara Hub **Site CPH-014**



Date	12/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	712390 mE;	7466402 mN
	119.070583 E	-22.896883 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Gully	
Vegetation	*Acacia tumida* var. *pilbarensis*, *Acacia monticola, Grevillea wickhamii* subsp. *hispidula* mid to tall shrubland with *Corymbia ferriticola, Corymbia hamersleyana* low open woodland over *Eriachne mucronata, Cymbopogon ambiguus* low sparse tussock grassland.	
Notes	100m x 25m, bearing 100.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia hamersleyensis	0.1	2.8		
Acacia maitlandii	0.1	1.2		
Acacia monticola	3	3.5		
Acacia tumida var. *pilbarensis*	5	3		
**Aerva javanica*	0.1	0.6		
Afrohybanthus aurantiacus	0.1	0.2		
Androcalva luteiflora	0.1	2.2		
Arivela viscosa	0.1	0.1		
Astrotricha hamptonii	0.1	1		
Cheilanthes brownii	0.1	0.2	CPH-14-02	
Clerodendrum floribundum	0.1	0.4		
Corymbia ferriticola	3	6		
Corymbia hamersleyana	0.1	3		
Cymbopogon ambiguus	0.1	0.5		
Dodonaea lanceolata var. *lanceolata*	0.1	2.8	CPH028.03	
Duperreya commixta	0.1	0.1		
Eriachne ciliata	0.1	0.4		
Eriachne mucronata	4	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	1		
Euphorbia trigonosperma	0.1	0.2	CPH-30-03	
Ficus brachypoda	0.1	4.5	CPH-14-01	
Gastrolobium grandiflorum	0.1	1.6		
Gompholobium oreophilum	0.1	0.8		
Gossypium robinsonii	0.1	4		
Grevillea wickhamii subsp. *hispidula*	1	3		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0.3		
Melhania oblongifolia	0.1	0.2	CPH021.01	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	0.1	3		
Psydrax latifolia	0.1	0.3		
Senna glutinosa subsp. *glutinosa*	0.1	0.4		
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	0.1	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.8	CPH-30-05	
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	0.1	0.6		
Themeda triandra	1	0.3		

Central Pilbara Hub **Site CPH-015**



Date	12/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	712113 mE;	7466025 mN
	119.067933 E	-22.900316 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia vanleeuwenii*, *Triodia wiseana* low open hummock grassland with *Acacia bivenosa, Dodonaea coriacea, Senna glutinosa* subsp. *glutinosa*, *Senna glutinosa* subsp. *pruinosa* mid to tall sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	0.9		
Acacia bivenosa	2	2.2		
Acacia hilliana	0.1	0.2		
Capparis lasiantha	0.1	0.4		
Corchorus lasiocarpus subsp. *lasiocarpus*	0.1	0.4	CPH-35-02	
Cymbopogon sp. Indet	0.1	0.1		Sterile
Dodonaea coriacea	0.1	1.2	CPH015.01	
Eremophila latrobei	0.1	0.8		
Eremophila longifolia	0.1	0.8		
Eriachne lanata	0.1	0.3	CPH015.02	
Eucalyptus leucophloia subsp. *leucophloia*	1	5		
Goodenia triodiophila	0.1	0.2		
Hakea lorea subsp. *lorea*	0.1	2		
Ptilotus calostachyus	0.1	0.2		
Ptilotus exaltatus	0.1	0.3		
Ptilotus rotundifolius	0.1	0.6		
Senna glutinosa subsp. *glutinosa*	0.1	1.6		
Senna glutinosa subsp. *pruinosa*	0.1	1.5		
Senna glutinosa subsp. x *luerssenii*	0.1	1.4		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.2	CPH015.05	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.2	CPH015.04	
Tephrosia oxalidea	0.1	0.1		
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	0.1	0.4	CPH015.03	
Triodia vanleeuwenii	20	0.4		
Triodia wiseana	5	0.4		

Central Pilbara Hub **Site CPH-016**



Date	12/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	713345 mE;	7466368 mN
	119.079892 E	-22.897066 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	None Discernible	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Acacia tumida* var. *pilbarensis* mid open shrubland over *Acacia adoxa* var. *adoxa*, *Acacia hilliana*, *Gompholobium oreophilum* low sparse shrubland over *Triodia wiseana* low isolated clumps of hummock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	2	0.4		
Acacia hilliana	2	0.4	CPH024-06 CPH016-02	
Acacia monticola	2	0.5		
Acacia pruinocarpa	0.1	1		
Acacia tumida var. *pilbarensis*	20	2	CPH008-05	
Afrohybanthus aurantiacus	0.1	0.2		
Amphipogon sericeus	0.1	0.2	CPH 009-1	
Androcalva luteiflora	0.1	1.3		
Aristida holathera var. *holathera*	0.1	0.2		
Corchorus lasiocarpus	0.1	0.5		
Corymbia hamersleyana	0.1	4		
Dampiera candicans	0.1	0.5		
Eremophila latrobei subsp. *latrobei*	0.1	1.1		
Eriachne lanata	1	0.3	CPH012-09	
Gompholobium oreophilum	1	0.3	CPH020-02	
Goodenia triodiophila	0.1	0.2		
Grevillea wickhamii	0.1	2.5		
Hibiscus coatesii	0.1	0.2	CPH024-01	
Hibiscus sturtii var. *campylochlamys*	0.1	0.3	CPH012-04	
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Mirbelia viminalis	0.1	0.5		
Petalostylis labicheoides	0.1	2		
Ptilotus astrolasius	0.1	0.2		
Ptilotus calostachyus	0.1	0.4		
Santalum lanceolatum	0.1	2	CPH016-01	
Scaevola browniana subsp. *browniana*	0.1	0.2	EERBOPP-01	
Sida calyxhymenia	0.1	0.4	CPH 009-03	
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.7	CPH008-03	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Themeda triandra	0.1	0.3		
Triodia vanleeuwenii	0.1	0.2		
Triodia wiseana	1	0.3		

Central Pilbara Hub **Site CPH-017**



Date	11/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	712823 mE;	7465604 mN
	119.074910 E	-22.904028 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	None Discernible	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia bivenosa* mid isolated shrubs.	
Notes	100m x 25m, bearing 90.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	1	1.5		
Capparis lasiantha	0.1	0.5		
Cheilanthes sp. Indet	0.1	0.1		Sterile
Cymbopogon ambiguus	0.1	0.2		
Duperreya commixta	0.1	0.1		
Eremophila sp. Indet.	0.1	0.5	CPH 017-02	
Eriachne mucronata	1	0.2		
Eucalyptus leucophloia subsp. *leucophloia*	3	5		
Hibiscus burtonii	0.1	0.5	CPH 033-1	
Jasminum didymum subsp. *lineare*	0.1	0.1		
Ptilotus astrolasius	0.1	0.3		
Ptilotus calostachyus	0.1	0.3		
Ptilotus exaltatus	0.1	0.5		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.2		
Senna glutinosa subsp. *pruinosa*	0.1	0.3		
Senna glutinosa subsp. x *luerssenii*	0.1	1.1		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.1	CPH17-01	
Tephrosia densa	0.1	0.25		
Triodia pungens	1	0.35		
Triodia vanleeuwenii	40	0.25		

Central Pilbara Hub **Site CPH-018**



Date	12/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	714287 mE;	7469010 mN
	119.088712 E	-22.873090 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia bivenosa, Senna sericea, Senna glutinosa* subsp. ×*luerssenii* mid isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	1.6		
Acacia bivenosa	0.1	1.6		
Acacia maitlandii	0.1	1.4		
Acacia tenuissima	0.1	1.3	CPH-27-01	
Capparis lasiantha	0.1	1.2		
Eucalyptus leucophloia subsp. *leucophloia*	1	4.5		
Ptilotus rotundifolius	0.1	0.7		
Senna glutinosa subsp. *pruinosa*	0.1	1.1		
Senna glutinosa subsp. x *luerssenii*	0.1	1.2		
Senna sericea	0.1	0.8	CPH08.01	
Triodia vanleeuwenii	45	0.5		

Central Pilbara Hub **Site CPH-019**



Date	13/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	716463 mE;	7470997 mN
	119.109626 E	-22.854879 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Triodia vanleeuwenii, Triodia wiseana* low hummock grassland with *Acacia hilliana* low sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia hilliana	2	0.8		
Corymbia hamersleyana	0.1	2.2		
Eucalyptus leucophloia subsp. *leucophloia*	1	7.5		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.2		
Hakea chordophylla	0.1	1.3		
Melhania oblongifolia	0.1	0.3	CPH021.01	
Mirbelia viminalis	0.1	0.7		
Senna artemisioides subsp. *oligophylla*	0.1	0.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Senna glutinosa subsp. *pruinosa*	0.1	1.2		
Triodia vanleeuwenii	45	0.4		
Triodia wiseana	1	0.5		

Central Pilbara Hub **Site CPH-020**



Date	12/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	713263 mE;	7466970 mN
	119.079014 E	-22.891638 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Corymbia deserticola* subsp. *deserticola* low isolated trees over *Hakea chordophylla* tall isolated shrubs over *Acacia adoxa* var. *adoxa, Acacia ancistrocarpa* low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	1	0.5		
Acacia hilliana	1	0.5	CPH024-06	
Amphipogon sericeus	0.1	0.2	CPH 009-1	Sterile
Corchorus lasiocarpus	0.1	0.6		
Gompholobium oreophilum	0.1	0.5	CPH020-02	
Goodenia triodiophila	0.1	0.2		
Hakea chordophylla	1	3.4		
Indigofera monophylla	0.1	0.5		
Paraneurachne muelleri	0.1	0.3	CPH020-03	
Ptilotus calostachyus	0.1	0.4		
Scaevola browniana subsp. *browniana*	0.1	0.3	EERBOPP-01	
Senna ferraria	0.1	1.2	CPH020-01	
Sida calyxhymenia	0.1	0.7	CPH 009-03	
Triodia vanleeuwenii	50	0.3		

Central Pilbara Hub **Site CPH-021**



Date	11/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	712564 mE;	7464725 mN
	119.072507 E	-22.911996 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	Conglomerate	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	

Vegetation *Enneapogon lindleyanus, Themeda triandra, Chrysopogon fallax* mid sparse tussock grassland with *Petalostylis labicheoides, Acacia pyrifolia* var. *pyrifolia*, *Stylobasium spathulatum* mid to tall sparse shrubland over *Triodia wiseana* low sparse hummock grassland with *Eucalyptus xerothermica, Corymbia hamersleyana* low isolated trees.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2	CPH031.05	
Acacia bivenosa	0.1	1.2		
Acacia maitlandii	0.1	1.6		
Acacia pyrifolia var. *pyrifolia*	1	1.6		
Acacia tumida var. *pilbarensis*	0.1	1.4		
Afrohybanthus aurantiacus	0.1	0.2		
Alternanthera denticulata var. denticulata	0.1	0.2	CPH031.06	
Androcalva luteiflora	0.1	1.3		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.4	CPH021.06	
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.2	CPHR001.07	
Bonamia erecta	0.1	0.3		
Chrysopogon fallax	1	0.6		
Corchorus tridens	0.1	0.2		
Corymbia hamersleyana	1	4.5		
Cucumis variabilis	0.1	0.1		
Digitaria brownii	0.1	0.3	CPH031.07	
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	3	0.4	CPH028.05	
Eragrostis cumingii	0.1	0.1	CPH021.02	
Eragrostis olida	0.1	0.4	CPH021.05	
Eremophila longifolia	0.1	1.8		
Eriachne ?benthamii	2	0.4	CPH022.04	
Euphorbia australis var. *subtomentosa*	0.1	0.1	CPH021.04	
Euphorbia trigonosperma	0.1	0.1	CPH030-03	
Evolvulus alsinoides var. *decumbens*	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Gossypium robinsonii	0.1	3		
Grevillea wickhamii subsp. *hispidula*	0.1	3.5		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4	CPH030-01	
Indigofera georgei	0.1	0.8		
Isotropis iophyta	0.1	0.3		
**Malvastrum americanum*	0.1	0.4		
Melhania oblongifolia	0.1	0.4	CPH021.01	
Nellica maderaspatensis	0.1	0.3		
Paraneurachne muelleri	0.1	0.4		
Perotis rara	0.1	0.1		
Petalostylis labicheoides	3	3		
Pterocaulon sphacelatum	0.1	0.3	CPH031.09	
Ptilotus astrolasius	0.1	0.4		
Ptilotus calostachyus	0.1	0.4		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Rhagodia eremaea	0.1	0.7		
Rhynchosia minima	0.1	0.1		
Salsola australis	0.1	0.3		
Santalum lanceolatum	0.1	2.2		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. x *artemisioides*	0.1	0.9	CPH021.07	
Setaria surgens	0.1	0.2		
Sida fibulifera	0.1	0.2		
Sida sp. Indet	0.1	0.1	CPH021.03	
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.4	CPH030-05	
Stylobasium spathulatum	1	1.6		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	1	0.5		
Themeda triandra	3	0.6		
Trichodesma zeylanicum var. *zeylanicum*	0.1	1.3		
Triodia wiseana	0.1	0.4		

Central Pilbara Hub **Site CPH-022**



Date	11/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	712587 mE;	7464903 mN
	119.072706 E	-22.910383 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Triodia pungens* low open hummock grassland with *Acacia aptaneura, Acacia aneura*, *Acacia pruinocarpa* tall open shrubland over *Chrysopogon fallax* low sparse tussock grassland with *Eucalyptus xerothermica* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
?*Bothriochloa ewartiana*	0.1	0.3	CPHR001.04	
Abutilon fraseri subsp. *fraseri*	0.1	0.2	CPH028.02	
Acacia adsurgens	0.1	2.1	CPH031.04	
Acacia ancistrocarpa	0.1	1.7		
Acacia aneura	5	3.5	CPH022.01	
Acacia aptaneura	4	4		
Acacia bivenosa	0.1	1.2		
Acacia pruinocarpa	1	3.5		
Afrohybanthus aurantiacus	0.1	0.2		
Alternanthera denticulata var. denticulata	0.1	0.2	CPH031.06	
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Atalaya hemiglauca	0.1	1.7		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.1	CPHR001.07	
Capparis lasiantha	0.1	1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2	CPH022.05	
Chrysopogon fallax	1	0.5		
Digitaria brownii	0.1	0.3	CPH031.07	
Duperreya commixta	0.1	0.1		
Enchylaena tomentosa var. *tomentosa*	0.1	0.2		
Enneapogon lindleyanus	0.1	0.4	CPH028.05	
Eragrostis sp. Indet	0.1	0.1		Sterile
Eremophila forrestii subsp. *forrestii*	0.1	1.5		
Eremophila longifolia	0.1	0.4		
Eriachne ?benthamii	0.1	0.3	CPH022.04	
Eucalyptus xerothermica	0.1	5		
Gossypium robinsonii	0.1	2.8		
Hibiscus burtonii	0.1	0.4	CPH031.03	
Hibiscus sturtii var. *campylochlamys*	0.1	0.3	CPH030-01	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Indigofera georgei	0.1	0.4	CPH022.03	
Jasminum didymum subsp. *lineare*	0.1	0.3		
Paraneurachne muelleri	0.1	0.2		
Ptilotus exaltatus	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Rhagodia eremaea	0.1	0.8		
Rhynchosia minima	0.1	0.1		
Senna artemisioides subsp. *helmsii*	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	1		
Sida fibulifera	0.1	0.1		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.4	CPH030-05	
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Tribulus macrocarpus	0.1	0.1	CPH022.02	
Trigastrotheca molluginea	0.1	0.1		
Triodia pungens	25	0.5		
Triodia wiseana	0.1	0.3		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-023**



Date	11/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	712825 mE;	7465261 mN
	119.074983 E	-22.907127 S
Veg Condition	Very Good	
Soil	Silty Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii, Triodia wiseana* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia ancistrocarpa, Hakea lorea* subsp. *lorea* mid to tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	1	0.7		
Acacia adsurgens	0.1	1.8		
Acacia ancistrocarpa	1	1.8		
Acacia bivenosa	0.1	1.6		
Acacia monticola	0.1	1.9		
Acacia pachyacra	0.1	0.6		
Aristida contorta	0.1	0.1		
Eremophila latrobei	0.1	0.6		
Eriachne ciliata	0.1	0.3		
Eriachne mucronata	0.1	0.3	CPH023.01	
Eucalyptus leucophloia subsp. *leucophloia*	1	4.5		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.2		
Gossypium robinsonii	0.1	1.6		
Hakea lorea subsp. *lorea*	0.1	1.7		
Ptilotus calostachyus	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.5		
Senna glutinosa subsp. x *luerssenii*	0.1	1.4		
Solanum lasiophyllum	0.1	0.2		
Themeda triandra	0.1	0.5		
Triodia vanleeuwenii	35	0.3		
Triodia wiseana	2	0.4		

Central Pilbara Hub **Site CPH-024**



Date 11/03/2022
Described by Ryonen Butcher, Emily Eakin-Busher
Type Quadrat 100m x 25m
Location MGA Zone 50
712021 mE; 7465105 mN
119.067169 E -22.908631 S
Veg Condition Excellent
Soil Clay Loam
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Drainage Area/ Floodplain
Vegetation *Acacia ancistrocarpa, Acacia monticola* mid shrubland with *Eucalyptus gamophylla* low isolated mallee trees with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia adoxa* var. *adoxa, Seringia exastia* low isolated clumps of shrubs over *Triodia pungens* low open hummock grassland.
Notes 100m x 25m, bearing 180.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
?*Dodonaea* sp. Indet	0.1	1.6	CPH024-02	Sterile
?*Stemodia* sp. Indet	0.1	0.2	CPH024-04	Sterile
Acacia adoxa var. *adoxa*	0.1	0.6		
Acacia adsurgens	0.1	0.6	CPH024-07	
Acacia ancistrocarpa	50	1.8	CPH024-03	
Acacia bivenosa	0.1	2.5		
Acacia hilliana	0.1	0.6	CPH024-06	
Acacia inaequilatera	0.1	0.3		
Acacia monticola	10	2.5		
Acacia pachyacra	0.1	1.6		
Acacia tenuissima	0.1	1.6	CPH024-05	
Afrohybanthus aurantiacus	0.1	0.5		
Corchorus lasiocarpus	0.1	0.3		
Corymbia hamersleyana	0.5	7		
Cymbopogon ambiguus	0.1	0.4		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.3	CPH036-10	
Eriachne mucronata	0.1	0.4		
Eucalyptus gamophylla	1	4		
Eucalyptus leucophloia subsp. *leucophloia*	1	8		
Grevillea wickhamii	1	2.6		
Hakea chordophylla	0.1	3.8		
Hibiscus coatesii	0.1	0.2	CPH024-01	
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Paraneurachne muelleri	0.1	0.2		
Ptilotus calostachyus	0.1	0.4		
Ptilotus obovatus var. *obovatus*	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Rhagodia eremaea	0.1	0.4		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3	CPH036-03	
Senna artemisioides subsp. *oligophylla*	0.1	0.9		
Senna glutinosa subsp. *glutinosa*	0.1	1.5	CPH033-3	
Seringia exastia	0.1	0.6		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.8	CPH036-09	
Themeda triandra	2	0.4		
Triodia pungens	10	0.4		
Triodia vanleeuwenii	0.1	0.4		

Central Pilbara Hub **Site CPH-025**



Date	12/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	711663 mE;	7465899 mN
	119.063565 E	-22.901515 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Triodia wiseana, Triodia vanleeuwenii* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees with *Acacia bivenosa* mid isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	1.2		
Acacia bivenosa	0.1	1.6		
Eucalyptus leucophloia subsp. *leucophloia*	1	4.5		
Senna glutinosa subsp. *glutinosa*	0.1	1.6		
Senna glutinosa subsp. *pruinosa*	0.1	1.5		
Themeda triandra	0.1	0.5		
Triodia vanleeuwenii	30	0.3		
Triodia wiseana	20	0.4		

Central Pilbara Hub **Site CPH-026**



Date	11/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	711668 mE;	7464893 mN
	119.063753 E	-22.910596 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	

Vegetation *Triodia vanleeuwenii* low open hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated clumps of trees over *Hakea chordophylla, Acacia inaequilatera* tall isolated clumps of shrubs over *Ptilotus rotundifolius, Senna glutinosa* subsp. *glutinosa, Senna glutinosa* subsp. ×*luerssenii* low shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	1	1	CPH024-07 CPH026-02	
Acacia aptaneura	0.1	0.9		
Acacia bivenosa	0.1	0.7		
Acacia inaequilatera	0.1	3.5		
Acacia maitlandii	0.1	0.5	CPH036-01	
Acacia pruinocarpa	0.1	2		
Acacia sibirica	0.1	0.6	CPH026-01	
Acacia tenuissima	0.1	0.7	CPH024-05	
Afrohybanthus aurantiacus	0.1	0.3		
Aristida inaequiglumis	0.1	0.3	CPH036-08	
Corymbia deserticola subsp. *deserticola*	0.2	5		
Duperreya commixta	0.1	0.1		
Eremophila sp. Indet.	0.1	0.8		Sterile
Eriachne mucronata	0.1	0.2		
Eriachne sp. Indet	0.1	0.1		Sterile
Eucalyptus gamophylla	0.2	2		
Eucalyptus leucophloia subsp. *leucophloia*	1	8		
Hakea chordophylla	0.1	3.5		Regrowing
Indigofera monophylla	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Paraneurachne muelleri	0.1	0.1		
Paspalidium sp. Indet	0.1	0.2		Sterile
Ptilotus calostachyus	0.1	0.4		
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Ptilotus rotundifolius	0.5	0.9		
Senna artemisioides subsp. *oligophylla*	0.1	0.9	CPH034-09	
Senna glutinosa subsp. *glutinosa*	0.1	1		
Senna glutinosa subsp. *pruinosa*	0.1	1.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna glutinosa subsp. x *luerssenii*	0.1	0.8		
Sida sp. Indet	0.1	0.2	CPH034-X	
Solanum lasiophyllum	0.1	0.1		
Themeda triandra	0.1	0.2		
Triodia pungens	0.1	0.4		
Triodia vanleeuwenii	25	0.2		

Central Pilbara Hub **Site CPH-027**



Date	11/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	712345 mE;	7464328 mN
	119.070429 E	-22.915608 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Acacia adoxa* var. *adoxa* low sparse shrubland with *Hakea chordophylla, Hakea lorea* subsp. *lorea, Acacia adsurgens, Acacia ancistrocarpa* mid to tall isolated shrubs with *Corymbia deserticola* subsp. *deserticola*, *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	1	0.4		
Acacia adsurgens	0.1	1.4		
Acacia ancistrocarpa	0.1	1.6		
Acacia bivenosa	0.1	1.1		
Acacia colei var. *colei*	0.1	1.6		
Acacia inaequilatera	0.1	1.8		
Acacia tenuissima	0.1	1.4	CPH-27-01	
Corymbia deserticola subsp. *deserticola*	0.1	4		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	2.2		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.1		
Hakea chordophylla	0.1	2.9		
Hakea lorea subsp. *lorea*	0.1	3		
Indigofera monophylla	0.1	0.3		
Ptilotus calostachyus	0.1	0.5		
Triodia vanleeuwenii	35	0.3		

Central Pilbara Hub **Site CPH-028**



Date	10/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	710461 mE;	7463679 mN
	119.052162 E	-22.921704 S
Veg Condition	Very Good	
Soil	Clayey Sand	
Rock Type	Detritals	
Fire Age	Old (6+ yr)	
Habitat	Minor Drainage Line	
Vegetation	*Corymbia hamersleyana, Eucalyptus xerothermica, Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over A*cacia dictyophleba, Acacia maitlandii, Acacia adsurgens* mid to tall sparse shrubland over *Themeda triandra* low sparse tussock grassland with *Triodia pungens* low isolated hummock grasses.	
Notes	100m x 25m, bearing 165.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.4	CPH028.02	
Acacia adsurgens	0.1	1	CPH031.04	
Acacia ancistrocarpa	0.1	1.2		
Acacia aptaneura	0.1	3		
Acacia bivenosa	0.1	2.3		
Acacia dictyophleba	1	2.8		
Acacia maitlandii	1	2.5		
Acacia pruinocarpa	0.1	4		
Acacia pyrifolia var. *pyrifolia*	0.1	0.8		
Afrohybanthus aurantiacus	0.1	0.3		
Androcalva luteiflora	0.1	1.1		
Capparis lasiantha	0.1	1.2		
Corymbia hamersleyana	8	7.5		
Cymbopogon ambiguus	0.1	0.4	CPH028.01	
Digitaria brownii	0.1	0.3	CPH031.07	
Dipteracanthus australasicus subsp. *australasicus*	0.1	0.2		
Dodonaea lanceolata var. *lanceolata*	2.1	0.1	CPH028.03	
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.3	CPH028.05	
Eucalyptus leucophloia subsp. *leucophloia*	1	6		
Eucalyptus xerothermica	1	5.5		
Eulalia aurea	0.1	0.4		
Gossypium robinsonii	0.1	1.3		
Indigofera georgei	0.1	0.3		
Isotropis iophyta	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	1.2		
Paraneurachne muelleri	0.1	0.4		
Petalostylis labicheoides	0.1	2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Pterocaulon sphacelatum	0.1	0.8		
Ptilotus astrolasius	0.1	0.2		
Ptilotus exaltatus	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Santalum lanceolatum	0.1	1.5		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Sclerolaena cornishiana	0.1	0.1	CPH028.04	
Senna artemisioides subsp. *oligophylla*	0.1	1.2		
Seringia exastia	0.1	0.4		
Sida fibulifera	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.7		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	0.1	0.4		
Themeda triandra	3	0.5		
Triodia pungens	2	0.5		
Vigna lanceolata	0.1	0.1		

Central Pilbara Hub **Site CPH-029**



Date	10/03/2022	
Described by	Emily Eakin-Busher, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	712365 mE;	7463422 mN
	119.070746 E	-22.923782 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Corymbia deserticola* subsp. *deserticola* low isolated trees over *Hakea lorea* subsp. *lorea, Grevillea berryana, Acacia adsurgens* mid to tall isolated shrubs over *Ptilotus rotundifolius, Acacia adoxa* var. *adoxa* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia adsurgens	0.1	1.5	CPH029-02	
Corymbia deserticola subsp. *deserticola*	1	4.3		
Grevillea berryana	0.1	1.7	CPH029-01	
Hakea lorea subsp. *lorea*	0.1	4		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Ptilotus rotundifolius	0.1	0.7		
Triodia vanleeuwenii	35	0.3		

Central Pilbara Hub **Site CPH-030**



Date	10/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	710953 mE;	7463564 mN
	119.056970 E	-22.922682 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Acacia aptaneura, Eucalyptus xerothermica, Eucalyptus gamophylla* low woodland over *Triodia pungens* low sparse hummock grassland with *Themeda triandra, Chrysopogon fallax* low sparse tussock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	0.5	CPH-30-02	
Acacia aptaneura	6	5		
Acacia dictyophleba	0.1	1.8		
Acacia pruinocarpa	0.1	2.4		
Acacia pyrifolia var. *pyrifolia*	0.1	1.5		
Aristida contorta	0.1	0.2		
**Bidens bipinnata*	0.1	0.2		
Capparis lasiantha	0.1	1.6		
Cheilanthes sp. Indet	0.1	0.1		Sterile
Chrysopogon fallax	0.3	0.5		
**Digitaria ciliaris*	0.1	0.4		
Dipteracanthus australasicus subsp. *australasicus*	0.1	0.3		
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.3		
Eragrostis sp. Indet	0.1	0.1		Sterile
Eremophila forrestii subsp. *forrestii*	0.1	1		
Eriachne mucronata	0.1	0.4		
Eucalyptus gamophylla	2	3.8		
Eucalyptus xerothermica	3	4.5		
Eulalia aurea	0.1	0.5		
Euphorbia trigonosperma	0.1	0.2	CPH-30-03	
Goodenia microptera	0.1	0.1		
Goodenia stellata	0.1	0.1		
Hibiscus burtonii	0.1	0.2		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3	CPH-30-01	
Jasminum didymum subsp. *lineare*	0.1	0.5		
Paraneurachne muelleri	0.1	0.5		
Peripleura obovata	0.1	0.3	CPH-30-06	
Petalostylis labicheoides	0.1	2.1		
Pterocaulon sphacelatum	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus calostachyus	0.1	0.5		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Rhagodia eremaea	0.1	1.2		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.4		
Senna artemisioides subsp. x *sturtii*	0.1	0.4	CPH-30-04	
Sida fibulifera	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1	CPH-30-05	
Solanum cleistogamum	0.1	0.3		
Themeda triandra	3	0.4		
Triodia pungens	5	0.4		

Central Pilbara Hub **Site CPH-031**



Date	10/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	711680 mE;	7463307 mN
	119.064093 E	-22.924911 S
Veg Condition	Very Good	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia vanleeuwenii, Triodia pungens* mid hummock grassland with *Acacia pruinocarpa, Eucalyptus leucophloia* subsp. *leucophloia, Eucalyptus gamophylla* low open woodland over *Acacia bivenosa, Acacia maitlandii, Acacia adsurgens* tall sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.3	CPH031.05	
Acacia adsurgens	0.1	2.2	CPH031.04	
Acacia aptaneura	0.1	2.1		
Acacia bivenosa	0.1	2.6		
Acacia maitlandii	0.1	2.3		
Acacia pruinocarpa	2	4.5		
Acacia tenuissima	0.1	1.8	CPH031.09	
Alternanthera denticulata var. denticulata	0.1	0.2	CPH031.06	
Androcalva luteiflora	0.1	1.6		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.4		
Chrysopogon fallax	0.1	0.5		
Codonocarpus cotinifolius	0.1	2.1		
Digitaria brownii	0.1	0.4	CPH031.07	
Duperreya commixta	0.1	0.1		
Enchylaena tomentosa var. *tomentosa*	0.1	0.6		
Enneapogon polyphyllus	0.1	0.2	CPH31.01	
Eremophila forrestii subsp. *forrestii*	0.1	0.7		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	1	5.5		
Goodenia microptera	0.1	0.2		
Goodenia stobbsiana	0.1	0.2		
Hakea chordophylla	0.1	0.7		
Hibiscus burtonii	0.1	0.3	CPH031.03	
Jasminum didymum subsp. *lineare*	0.1	0.6		
Paraneurachne muelleri	0.1	0.2		
Petalostylis labicheoides	0.1	2.1		
Pterocaulon sp. Indet	0.1	0.4	CPH031.09	Sterile

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus astrolasius	0.1	0.3		
Ptilotus calostachyus	0.1	0.3		
Salsola australis	0.1	0.4		
Sida fibulifera	0.1	0.2		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.3	CPH031.08	
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.3	CPH031.02	
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Triodia pungens	15	0.7		
Triodia vanleeuwenii	20	0.4		

Central Pilbara Hub **Site CPH-032**



Date	14/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	719595 mE;	7475988 mN
	119.139435 E	-22.809409 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia inaequilatera, Senna glutinosa* subsp. *glutinosa* mid to low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	0.5	CPH024-03	
Acacia bivenosa	0.1	0.5		
Acacia inaequilatera	1	4		
Cheilanthes sp. Indet	0.1	0.1		Sterile
Eucalyptus leucophloia subsp. *leucophloia*	0.1	1		Mostly resprouting
Fimbristylis dichotoma	0.1	0.1	CPH003-02	
Hakea chordophylla	0.1	1		
Ptilotus astrolasius	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	1		
Triodia wiseana	50	0.4		

Central Pilbara Hub **Site CPH-033**



Date	10/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	709698 mE;	7463441 mN
	119.044752 E	-22.923946 S
Veg Condition	Very Good	
Soil	Clayey Sand	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia pungens, Triodia vanleeuwenii* low sparse hummock grassland with *Acacia adsurgens, Acacia tumida* var. *pilbarensis* mid to tall isolated shrubs with *Eucalyptus gamophylla, Eucalyptus xerothermica, Acacia aptaneura* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.4		
Acacia adsurgens	0.1	1.6	CPH036-11	
Acacia aptaneura	1	5	CPH033-2	
Acacia inaequilatera	0.5	6		
Acacia pruinocarpa	0.1	1		
Acacia tumida var. *pilbarensis*	0.2	2.5	CPH034-10	
Afrohybanthus aurantiacus	0.1	0.4		
Amphipogon sericeus	0.1	0.07	CPH033-4	
Aristida contorta	0.1	0.05		
Aristida holathera var. *holathera*	0.1	0.2		
Aristida inaequiglumis	1	0.8	CPH033-05	
Aristida sp. Indet	0.5	0.15		Sterile
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eriachne helmsii	0.1	0.2	CPH036-17	
Eriachne lanata	0.1	0.1		
Eriachne mucronata	0.1	0.3		
Eucalyptus gamophylla	0.1	4		
Eucalyptus xerothermica	1	6		
Eulalia aurea	0.1	0.3		
Goodenia microptera	0.1	0.1		
Goodenia stobbsiana	0.1	0.5		
Hibiscus burtonii	2	6	CPH033-1	
Hibiscus sturtii var. *platychlamys*	0.1	0.4	CPH036-16	
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Maireana villosa	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Pterocaulon sphacelatum	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus astrolasius	0.1	1.2		
Ptilotus calostachyus	0.1	0.9		
Ptilotus exaltatus	0.1	1.3		
Ptilotus obovatus var. *obovatus*	0.1	0.1		
Rhagodia eremaea	0.1	0.2		
Santalum lanceolatum	0.1	1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3	CPH036-03	
Senna artemisioides subsp. *oligophylla*	0.1	1		
Senna glutinosa	0.1	1	CPH033-3	
Senna glutinosa subsp. x *luerssenii*	0.1	0.4		
Solanum lasiophyllum	0.1	0.25	CPH034-03	
Triodia pungens	25	0.6		
Triodia vanleeuwenii	2	0.3		
Waltheria indica	0.1	0.9		

Central Pilbara Hub **Site CPH-034**



Date	10/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	708061 mE;	7464134 mN
	119.028707 E	-22.917900 S
Veg Condition	Very Good	
Soil	Clayey Sand	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Triodia pungens, Triodia vanleeuwenii* low sparse hummock grassland with *Acacia pruinocarpa, Corymbia hamersleyana, Eucalyptus gamophylla* low isolated trees over *Acacia pyrifolia* var. *pyrifolia, Androcalva luteiflora* mid to low sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.2	CPH036-14	
Abutilon otocarpum	0.1	0.2		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	1	CPH-034-02	
Abutilon sp. Indet	0.1	0.2		Sterile
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia adsurgens	0.1	1	CPH036-11	
Acacia bivenosa	0.1	1.5		
Acacia maitlandii	0.1	1	CPH036-01	
Acacia monticola	0.1	4		
Acacia pruinocarpa	1	5.5		
Acacia pyrifolia var. *pyrifolia*	1	1.2		
Acacia tenuissima	0.1	2		
Acacia tumida var. *pilbarensis*	0.1	1.5	CPH034-10	
Acrachne racemosa	0.1	0.1	CPH034-07	
Afrohybanthus aurantiacus	0.1	0.2		
Androcalva luteiflora	1	0.7		
Anthobolus leptomerioides	0.1	1	CPH034-04	
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.4	CPH036-08	
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.1	CPH034-01	
Capparis lasiantha	0.1	0.1		
Chrysocephalum gilesii	0.1	0.2	CPH036-18	
Corchorus lasiocarpus	0.1	0.2		
Corymbia hamersleyana	0.1	7		
Cymbopogon ambiguus	0.1	0.3		
Digitaria brownii	0.1	0.2	CPH036-12	
Digitaria ctenantha	0.1	0.2		
Dodonaea viscosa subsp. *mucronata*	0.1	1.2	CPH036-02	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Duperreya commixta	0.1	0.1		
Enchylaena tomentosa var. *tomentosa*	0.1	0.5	CPH034-12	
Enneapogon polyphyllus	0.1	0.2		
Eremophila longifolia	0.1	1		
Eriachne mucronata	0.1	0.2		
Eucalyptus gamophylla	1	3		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	6.5		
Eucalyptus xerothermica	0.1	6		
Eulalia aurea	0.1	0.4		
Euphorbia australis var. *subtomentosa*	0.1	0.1	CPH034-06	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Gossypium robinsonii	0.1	3.5		
Hakea chordophylla	0.1	3		
Hibiscus sturtii var. *platychlamys*	0.1	0.3	CPH036-16	
Indigofera georgei	0.1	0.3		
Indigofera monophylla	0.1	0.4		
Iseilema membranaceum	0.1	0.1	CPH034-08	
Jasminum didymum subsp. *lineare*	0.1	0.1		
Maireana sp. Indet	0.1	0.6		Sterile
**Malvastrum americanum*	0.1	0.2		
Melhania oblongifolia	0.1	0.3		
Nellica ?maderaspatensis	0.1	0.3	CPH034-11	Sterile
Paraneurachne muelleri	0.1	0.2		
Perotis rara	0.1	0.1		
Ptilotus calostachyus	0.1	0.5		
Ptilotus exaltatus	0.1	0.5		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Rhagodia eremaea	0.1	0.9		
Rhynchosia minima	0.1	0.1		
Salsola australis	0.1	0.3		
Santalum lanceolatum	0.1	1.6		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3	CPH036-03	
Senna artemisioides subsp. *oligophylla*	0.1	0.4	CPH034-09	
Senna notabilis	0.1	0.1		
**Setaria verticillata*	0.1	0.3		
Sida sp. Indet	0.1	0.1	CPH034-X	Juvenile
Sida sp. L (A.M. Ashby 4202)	0.1	0.2	CPH036-13	
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1.8	CPH036-09	
Solanum lasiophyllum	0.1	0.5	CPH-034-03	
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	0.5	0.4		
Themeda triandra	0.1	0.3		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.3		
Triodia pungens	5	0.3		
Triodia vanleeuwenii	2	0.3		

Central Pilbara Hub **Site CPH-035**



Date	11/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	710992 mE;	7465136 mN
	119.057132 E	-22.908487 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Triodia pungens* low open hummock grassland with *Acacia bivenosa, Petalostylis labicheoides, Acacia maitlandii* mid to tall sparse shrubland with *Eucalyptus xerothermica* low open woodland.	
Notes	100m x 25m, bearing 150.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	0.6		
Acacia ancistrocarpa	0.1	1.6		
Acacia aptaneura	1	3		
Acacia bivenosa	3	2.2		
Acacia maitlandii	0.1	1.4		
Acacia pruinocarpa	0.1	2		
Acacia pyrifolia var. *pyrifolia*	0.1	1.6		
Afrohybanthus aurantiacus	0.3	0.4		
Alternanthera denticulata var. denticulata	0.1	0.1	CPH031.06	
Androcalva luteiflora	0.1	1.1		
Capparis lasiantha	0.1	0.8		
Cassytha filiformis	0.1	0.1	CPH035-03	
Corchorus lasiocarpus subsp. *lasiocarpus*	0.1	0.8	CPH035-02	
Dodonaea lanceolata var. *lanceolata*	0.1	2.2	CPH028.03	
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.4	CPH028.05	
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	4.5		
Eucalyptus xerothermica	2	3.2		
Euphorbia trigonosperma	0.1	0.2	CPH030-03	
Evolvulus alsinoides var. *decumbens*	0.1	0.1		
Goodenia stobbsiana	0.1	0.2		
Gossypium robinsonii	0.1	2.1		
Indigofera georgei	0.1	0.4		
Iseilema membranaceum	0.1	0.1	CPH035-04	
Jasminum didymum subsp. *lineare*	0.1	0.1		
Nellica maderaspatensis	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	1	2.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Pluchea dentex	0.1	0.3	CPH035-01	
Pterocaulon sp. Indet	0.1	0.1		Sterile
Ptilotus astrolasius	0.1	0.3		
Ptilotus calostachyus	0.1	0.5		
Ptilotus exaltatus	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Santalum lanceolatum	0.1	2		
Senna artemisioides subsp. *oligophylla*	0.1	1.2		
Senna glutinosa subsp. *glutinosa*	0.1	1.1		
Senna glutinosa subsp. x *luerssenii*	0.1	1.6		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.8	CPH030-05	
Stylobasium spathulatum	0.1	1.5		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	0.1	0.3		
Themeda triandra	0.1	0.5		
Triodia pungens	25	0.5		

Central Pilbara Hub **Site CPH-036**



Date	9/03/2022	
Described by	Emily Eakin-Busher, Darcy Reith	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	706924 mE;	7464385 mN
	119.017595 E	-22.915775 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Eulalia aurea, Themeda triandra, Triodia pungens* low open tussock and hummock grassland with *Petalostylis labicheoides, Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90) tall sparse shrubland with *Corymbia hamersleyana, Eucalyptus gamophylla, Acacia pruinocarpa* low isolated trees.	
Notes	100m x 25m, bearing 160.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.3	CPH036-14	
Abutilon otocarpum	0.1	0.2		
Acacia adsurgens	0.1	2.5	CPH036-11	
Acacia aptaneura	0.1	3.6	CPH036-04	
Acacia colei var. *colei*	0.1	3		
Acacia dictyophleba	0.1	1	CPH036-06	
Acacia maitlandii	0.1	2	CPH036-01	
Acacia pruinocarpa	2	5		
Afrohybanthus aurantiacus	0.1	0.4		
Androcalva luteiflora	0.1	1.9		
Aristida inaequiglumis	0.1	0.4	CPH036-08	
Capparis lasiantha	0.1	0.1		
Chrysocephalum gilesii	0.1	0.2	CPH036-18	
Chrysopogon fallax	1	0.4		
Corymbia hamersleyana	2	6		
Digitaria brownii	0.1	0.4	CPH036-12	
Dipteracanthus australasicus subsp. *australasicus*	0.1	0.3	CPH036-05	
Dodonaea viscosa subsp. *mucronata*	0.1	2	CPH036-02	
Duperreya commixta	0.1	0.1		
Dysphania sp. Indet	0.1	0.2		Sterile
Enneapogon lindleyanus	0.1	0.4	CPH036-10	
Eragrostis cumingii	0.1	0.1		
Eragrostis sp. Indet	0.1	0.3		Sterile
Eriachne helmsii	0.1	0.4	CPH036-17	
Eucalyptus gamophylla	1	2		
Eulalia aurea	2	0.3		
Evolvulus alsinoides	0.1	0.2		
Hibiscus sturtii var. *platychlamys*	0.1	0.3	CPH036-16	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Indigofera georgei	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	3	4		
Psydrax latifolia	0.1	1.5		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Santalum lanceolatum	0.1	1.1		
Scaevola amblyanthera var. *centralis*	0.1	0.2	CPH036-07 CPH036-19	
Scaevola parvifolia subsp. *pilbarae*	0.5	0.3	CPH036-03	
Senna artemisioides subsp. x *artemisioides*	0.1	2.1		
Setaria sp. Indet	0.1	0.2		Sterile
Sida sp. L (A.M. Ashby 4202)	0.1	0.4	CPH036-13 CPH036-15	
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	1	2.5	CPH036-09	
Themeda triandra	1	0.3		
Triodia pungens	0.1	0.4		

Central Pilbara Hub **Site CPH-037**



Date	13/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	715709 mE;	7469560 mN
	119.102488 E	-22.867942 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Minor Drainage Line	
Vegetation	*Themeda triandra, Eriachne mucronata* mid tussock grassland with *Acacia maitlandii, Acacia monticola, Androcalva luteiflora* tall sparse shrubland with *Corymbia hamersleyana* low isolated trees.	
Notes	100m x 25m, bearing 110.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia inaequilatera	0.1	1.4		
Acacia maitlandii	6	2.4		
Acacia monticola	2	2.4		
Alternanthera denticulata var. denticulata	0.1	0.1	CPH031.06	
Androcalva luteiflora	0.1	2.4		
Boerhavia coccinea	0.1	0.1	CPHR001.07	
Clerodendrum floribundum	0.1	0.4		
Corymbia hamersleyana	0.1	5		
Cymbopogon ambiguus	0.1	0.4	CPH028.01	
Eriachne mucronata	0.1	0.6		
Evolvulus alsinoides	0.1	0.1		Sterile
Goodenia muelleriana	0.1	0.1		
Gossypium australe	0.1	0.4		
Gossypium robinsonii	0.1	2		
Hibiscus coatesii	0.1	0.3	CPH037-01	
Indigofera monophylla	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	0.6		
Melhania oblongifolia	0.1	0.2	CPH021.01	
Paraneurachne muelleri	0.1	0.2		
Rhynchosia minima	0.1	0.1		
Santalum lanceolatum	0.1	2.5		
Senna artemisioides subsp. *oligophylla*	0.1	1.2		
Senna notabilis	0.1	0.1		
Sida fibulifera	0.1	0.1		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.8	CPH030-05	
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Themeda triandra	35	0.6		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Triodia pungens	0.1	0.6		
Triodia wiseana	0.1	0.5		

Central Pilbara Hub **Site CPH-038**



Date	14/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	720021 mE;	7475477 mN
	119.143655 E	-22.813968 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillslope	
Vegetation	*Triodia vanleeuwenii* low open hummock grassland with *Hakea lorea* subsp. *lorea, Grevillea wickhamii* subsp. *hispidula, Senna glutinosa* subsp. *glutinosa* mid to tall isolated shrubs with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia hilliana	0.1	0.4		
Acacia inaequilatera	0.1	0.4		
Bonamia pilbarensis	0.1	0.1		
Eriachne mucronata	0.1	0.3		
Fimbristylis sp. Indet	0.1	0.1		Sterile
Grevillea wickhamii subsp. *hispidula*	0.1	1.4		
Hakea lorea subsp. *lorea*	0.1	3.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.8		
Senna glutinosa subsp. *pruinosa*	0.1	1.3		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.4	CPH015.04	
Triodia vanleeuwenii	20	0.3		
Triodia wiseana	0.1	0.4		

Central Pilbara Hub **Site CPH-039**



Date	14/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	719858 mE;	7474607 mN
	119.142192 E	-22.821849 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Undulating Low Hills	

Vegetation *Triodia vanleeuwenii* low open hummock grassland with *Acacia inaequilatera, Grevillea wickhamii* subsp. *hispidula, Hakea lorea* subsp. *lorea* mid to tall scattered shrubs over *Acacia adoxa* var. *adoxa, Acacia h*illiana low isolated shrubs with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees (in landscape).

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia hilliana	0.1	0.5		
Bonamia pilbarensis	0.1	0.1	CPH039.01	
Corchorus lasiocarpus subsp. *lasiocarpus*	0.1	0.3	CPH035-02	
Dampiera candicans	0.1	0.3		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.2		
Grevillea wickhamii subsp. *hispidula*	0.1	2.6		
Hakea lorea subsp. *lorea*	0.1	1.1		
Indigofera monophylla	0.1	0.3		
Scaevola browniana subsp. *browniana*	0.1	0.4		
Senna glaucifolia	0.1	0.7	CPH013.02	
Triodia vanleeuwenii	25	0.4		

Central Pilbara Hub **Site CPH-040**



Date	14/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	720243 mE;	7476800 mN
	119.145632 E	-22.802000 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* low hummock grassland with *Acacia maitlandii, Acacia bivenosa, Acacia inaequilatera* tall to mid sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia ancistrocarpa	0.1	0.8	CPH024-03	
Acacia bivenosa	1	1		
Acacia inaequilatera	0.5	2.5		
Acacia maitlandii	2	1.5		
Acacia pruinocarpa	0.1	0.2		
Corymbia hamersleyana	0.1	2		Resprouting
Cymbopogon ambiguus	0.1	0.2		
Eremophila latrobei	0.1	0.3	CPH 007-01	
Eriachne lanata	0.1	0.1	CPH012-09	
Euploca sp. Indet	0.1	0.1		Sterile
Fimbristylis dichotoma	0.1	0.2	CPH 003-02	
Grevillea wickhamii	0.1	1.1		
Hakea chordophylla	0.1	3		
Senna artemisioides subsp. *oligophylla*	0.1	0.6	CPH034-09	
Senna glutinosa subsp. *glutinosa*	1	2	CPH 033-3	
Senna glutinosa subsp. *pruinosa*	0.1	1		
Triodia wiseana	55	1		

Central Pilbara Hub **Site CPH-041**



Date 15/06/2022
Described by Clinton van den Bergh, Emily Eakin-Busher
Type Quadrat 50m x 50m
Location MGA Zone 50
687400 mE; 7464843 mN
118.827244 E -22.913943 S
Veg Condition Excellent
Soil Sandy Clay Loam
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Stony Plain
Vegetation *Themeda triandra, Triodia melvillei* low open tussock and hummock grassland with *Acacia pruinocarpa, Acacia aptaneura* low isolated clumps of trees over *Hakea lorea* subsp. *lorea, Psydrax latifolia* tall isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.3		
Acacia aptaneura	1	8		
Acacia dictyophleba	0.1	1.7		
Acacia pruinocarpa	2	6		
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.4		
Aristida obscura	0.1	0.3		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	0.1	0.3		
Cucumis variabilis	0.1	0		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.1	0.2	CPH048.02	
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis eriopoda	0.1	0.3	CPH-51-10	
Eremophila latrobei subsp. *filiformis*	0.1	1		
Eulalia aurea	0.1	0.3		
Euphorbia drummondii	0.1	0.1	CPH041-02	
Euphorbia tannensis subsp. *eremophila*	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.2	CPH060-01	
Goodenia sp. Indet	0.1	0.1		Sterile
Hakea lorea subsp. *lorea*	0.1	3.2		
Hibiscus burtonii	0.1	0.3		
Hibiscus sturtii var. *platychlamys*	0.1	0.3	CPH036-16	
Maireana villosa	0.1	0.3	CPH041-03	
Ophioglossum lusitanicum	0.1	0.1		
Panicum decompositum	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Paraneurachne muelleri	0.1	2		
Psydrax latifolia	0.1	1.7		
Psydrax suaveolens	0.1	1.8		
Pterocaulon sphacelatum	0.1	0.4		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	1	0.6		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	2		
Salsola australis	0.1	0.2		Dead
Sclerolaena cornishiana	0.1	0.3		
Senna pleurocarpa var. *angustifolia*	0.1	0.3		
Sida fibulifera	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1		
Solanum lasiophyllum	0.1	0.5		
Teucrium teucriiflorum	0.1	0.5		
Themeda triandra	20	0.4		
Triodia melvillei	1	0.3		
Triodia pungens	0.1	0.3		
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-042**



Date 13/06/2022
Described by Emily Eakin-Busher
Type Quadrat 50m x 50m
Location MGA Zone 50
686504 mE; 7465305 mN
118.818456 E -22.909873 S
Veg Condition Very Good
Soil Medium Heavy Clay
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Claypan
Vegetation *Aristida contorta, Digitaria ammophila, Aristida inaequiglumis, Aristida jerichoensis* var. *subspinulifera* (P3) low closed tussock grassland with *Fimbristylis dichotoma* low sedges.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ?aneura	0.1	1.2		
Acacia aptaneura	0.5	3.8	CPH042.07	
Alternanthera angustifolia	0.1	0.1	CPH042-07	
Alternanthera nana	0.1	0.2		
Ammannia multiflora	0.1	0.1	CPH042-27	
Ammannia sp. Indet	0.1	0.1		Sterile
Aristida contorta	5	0.2		
Aristida holathera var. *holathera*	0.1	0.2		
Aristida inaequiglumis	1	0.6		
Aristida jerichoensis var. *subspinulifera* (P3)	1	0.5	CPH042.21	
Aristida obscura	0.1	0.5		
**Bidens bipinnata*	0.1	0.3		
Blumea tenella	0.1	0.2	CPH042.09	
Calandrinia sp. Indet	0.1	0.1	CPH042-18	
Centipeda minima subsp. *macrocephala*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.3		
Chrysopogon fallax	0.1	1		
Cymbopogon ambiguus	0.1	0.5		
Cymbopogon obtectus	0.1	0.4	CPH094-03	
Cyperus iria	0.1	0.3	CPH042-16	
Dactyloctenium radulans	0.1	0.2		
Digitaria ammophila	3	0.4		
Duperreya commixta	0.1	0.1		
Eragrostis cumingii	0.1	0.3	CPH042.20	
Eragrostis leptocarpa	0.1	0.3	CPH042-16	
Eragrostis pergracilis	0.5	0.2	CPH042.24	
Eragrostis tenellula	0.1	0.2	CPH042-12	
Eragrostis xerophila	0.1	0.4	CPH042.22	
Eremophila lanceolata	0.1	0.3		
Eremophila longifolia	0.1	1.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Eriachne flaccida	0.1	0.3	CPH042.24	
Eriachne mucronata	0.1	0.3		
Erigeron bonariensis	0.1	0.3		
Eulalia aurea	1	0.6		
Fimbristylis dichotoma	1	0.3	CPH042-14	
Goodenia prostrata	0.1	0.1		
Grevillea berryana	0.1	1		
Hakea lorea subsp. *lorea*	0.5	5		
Lysiana murrayi	0.1	0.1	Cph042-17	
Maireana villosa	0.1	0.3	CPH042-01 CPH042-25	
**Malvastrum americanum*	0.1	0.3		
Mimulus gracilis	0.1	0.1	CPH042-10	
Ophioglossum lusitanicum	0.1	0.1		
Panicum effusum	0.1	0.5		
Perotis rara	0.1	0.1		
Pluchea dentex	0.1	0.4	CPH042-13	
Pluchea rubelliflora	0.1	0.3	CPH042-11	
**Portulaca oleracea*	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus calostachyus	0.1	0.3		
Ptilotus gaudichaudii	0.1	0.2	CPH042-02	
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3		
Rhagodia eremaea	0.1	1		
Sida platycalyx	0.1	0.3		
**Solanum nigrum*	0.1	0.4		
**Sonchus oleraceus*	0.1	0.2		
Stemodia grossa	0.1	0.4		
Themeda triandra	0.1	0.3		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.5		
Typha domingensis	0.1	0.2		
Vittadinia sp. Indet	0.1	0.1		Sterile
Wahlenbergia tumidifructa	0.1	0.3	CPH042-26	

Central Pilbara Hub **Site CPH-043**



Date	24/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	686044 mE;	7466175 mN
	118.813873 E	-22.902068 S
Veg Condition	Very Good	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Themeda triandra* mid closed tussock grassland with *Acacia macraneura, Hakea lorea* subsp. *lorea* low isolated clumps of trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia macraneura	2	6	CPH043-07	
Acacia tumida var. *pilbarensis*	0.1	1	CPH008-05	
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida jerichoensis var. *subspinulifera* (P3)	5	0.5	CPH043-02	
**Bidens bipinnata*	0.1	0.2		
Chrysopogon fallax	0.1	0.5		
Cucumis variabilis	0.1	0.1		
Dactyloctenium radulans	0.1	0.1		
Digitaria ammophila	0.1	0.3		
Eragrostis cumingii	0.1	0.2		Dead
Eragrostis tenellula	0.1	0.2		
Eucalyptus xerothermica	0.1	5		
Eulalia aurea	1	0.3		
Euphorbia drummondii	0.1	0.1	CPH043-05	
Euphorbia tannensis subsp. *eremophila*	0.1	0.1		
Evolvulus alsinoides	0.1	0.1		
Fimbristylis dichotoma	0.1	0.2	CPH043-03	
Hakea lorea subsp. *lorea*	1	8		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Olearia stuartii	0.1	0.2	CPH043-06	
Panicum decompositum	0.5	0.4		
Perotis rara	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.6		
Sida platycalyx	0.1	0.1	EBBLOPP-01	
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum ferocissimum	0.1	0.2		
Stemodia viscosa	0.1	0.3		
Themeda triandra	70	0.5	CPH043-01	
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)	0.1	0.1		
Wahlenbergia tumidifructa	0.1	0.2		

Central Pilbara Hub **Site CPH-044**



Date	15/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	685891 mE;	7467496 mN
	118.812226 E	-22.890158 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	

Vegetation *Triodia melvillei, Triodia pungens* low open hummock grassland with *Acacia aptaneura, Hakea lorea* subsp. *lorea* tall isolated shrubs over *Aristida ?inaequiglumis*, *Themeda triandra* low sparse tussock grassland with *Hibiscus burtonii, Sida* spp. low isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	0.1	3	CPH044-03	
Acacia aptaneura	2	4		
Acacia ayersiana	0.1	2.5	CPH044-04	
Acacia pruinocarpa	0.1	4.5		
Aristida ?inaequiglumis	0.1	0.5	CPH044-01	
Aristida contorta	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1	CPH022.05	
Chrysopogon fallax	0.1	0.6		
Cucumis variabilis	0.1	0.1		
Digitaria brownii	0.1	0.4	CPH051-05	
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.4	CPH028.05	
Eremophila longifolia	0.1	3.5		
Eriachne helmsii	0.1	0.3	CPH044-02	
Eulalia aurea	0.1	0.5		
Hakea lorea subsp. *lorea*	0.1	4.5		
Hibiscus burtonii	0.1	0.4	CPH031.03	
Hibiscus sturtii var. *campylochlamys*	0.1	0.2	CPH044-07	
Indigofera georgei	0.1	0.1	CPH051-02	
Jasminum didymum subsp. *lineare*	0.1	0.2		
Panicum sp. Indet	0.1	0.2		Sterile
Paraneurachne muelleri	0.1	0.3		
Psydrax latifolia	0.1	3		
Pterocaulon sphacelatum	0.1	0.3	CPH031.09	
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Senna pleurocarpa var. *angustifolia*	0.1	0.6	CPH044-05	
Sida fibulifera	0.1	0.3		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.2	CPH044-08	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.5	CPH031.08	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1.1	CPH030-05	
Solanum ?ferocissimum	0.1	0.1	CPH044-06	
Solanum lasiophyllum	0.1	0.5		
Themeda triandra	1	0.5		
Triodia melvillei	20	0.4		
Triodia pungens	5	0.4		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-046**



Date	15/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	690685 mE;	7465285 mN
	118.859214 E	-22.909583 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens, Themeda triandra* low open hummock and tussock grassland with *Acacia cowleana* tall sparse shrubland with *Corymbia deserticola* subsp. *deserticola* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.1		
Abutilon otocarpum	0.1	0.3		
Acacia adsurgens	0.1	1.6		
Acacia aptaneura	0.1	5		
Acacia cowleana	1	3.5		
Acacia dictyophleba	0.1	3.7		
Acacia inaequilatera	0.1	1.4		
Acacia pachyacra	0.1	4		
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.4		
**Bidens bipinnata*	0.1	0.2		
Brachychiton acuminatus	0.1	1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	0.1	0.3		
Codonocarpus cotinifolius	0.1	0.4		
Corymbia deserticola subsp. *deserticola*	0.1	8		
Cucumis variabilis	0.1	0		
Cymbopogon ambiguus	0.1	0.5		
Digitaria brownii	0.1	0.4	CPH048.02	
Duperreya commixta	0.1	0		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis olida	0.1	0.3	CPH021.05	
Eremophila forrestii subsp. *forrestii*	0.1	1.5		
Eremophila fraseri subsp. *fraseri*	0.1	0.8		
Eremophila longifolia	0.1	2		
Eriachne mucronata	0.1	0.4	CPH048-07	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Eulalia aurea	15	0.4		
Euphorbia australis var. *hispidula*	0.1	0.2	CPH046-01	
Euphorbia tannensis subsp. *eremophila*	0.1	0.3		
Euploca sp. Indet	0.1	0.2		Sterile
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Glycine canescens	0.1	0		
Goodenia triodiophila	0.1	0.3		
Gossypium australe	0.1	1.5		
Gossypium robinsonii	0.1	3		
Hakea chordophylla	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	2.7		
Hibiscus sturtii var. *platychlamys*	0.1	0.2	CPH036-16	
Isotropis iophyta	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	1		
Maireana villosa	0.1	0.3	CPH041-03	
**Malvastrum americanum*	0.1	0.3		
Melhania oblongifolia	0.1	0.5		
Panicum decompositum	0.1	0.3		
Paraneurachne muelleri	0.1	0.3		
Peripleura obovata	0.5	0.3		
Psydrax latifolia	0.1	1.3		
Pterocaulon sphacelatum	0.1	0.4		
Ptilotus calostachyus	0.1	0.4		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Ptilotus rotundifolius	0.1	0.6		
Santalum lanceolatum	0.1	1.7		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	1		
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Senna artemisioides subsp. x *artemisioides*	0.1	2.6		
Senna glutinosa subsp. *glutinosa*	0.1	1		
Setaria surgens	0.1	0.1	CPH048-12	
Sida fibulifera	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1.2		
Solanum cleistogamum	0.1	0.3		
Solanum lasiophyllum	0.1	0.3		
Themeda triandra	10	0.5		
Triodia pungens	20	0.4		

Central Pilbara Hub **Site CPH-047**



Date	13/06/2022	
Described by	Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	685215 mE;	7466667 mN
	118.805734 E	-22.897715 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Footslope	
Vegetation	*Triodia wiseana* low hummock grassland with Acacia *monticola, Acacia maitlandii, Acacia atkinsiana* mid to low sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	0.6		
Acacia atkinsiana	0.1	0.4		
Acacia bivenosa	0.1	3		
Acacia dictyophleba	0.1	0.2		
Acacia maitlandii	1	1.3		
Acacia monticola	1.5	1		
Acacia pruinocarpa	0.1	0.5		
Acacia tenuissima	0.1	0.5		
Amphipogon sericeus	0.1	0.2		
Aristida inaequiglumis	0.1	0.6		
Codonocarpus cotinifolius	0.1	0.2		
Corchorus lasiocarpus	0.1	0.3		
Cucumis variabilis	0.1	0.1		
Eragrostis setifolia	0.1	0.2	CPH047.01	
Eremophila longifolia	0.1	1		
Eriachne mucronata	0.1	0.2		
Eriachne pulchella	0.1	0.1		
Eucalyptus leucophloia subsp. *leucophloia*	1	10		
Euploca sp. Indet	0.1	0.1		Sterile
Gompholobium oreophilum	0.1	0.3		
Goodenia microptera	0.1	0.1		
Goodenia stobbsiana	0.1	0.1		
Hibiscus sturtii var. *campylochlamys*	0.1	0.2		
Indigofera monophylla	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Polycarpaea holtzei	0.1	0.1		
Ptilotus calostachyus	0.1	0.4		
Ptilotus exaltatus	0.1	0.1		
Ptilotus rotundifolius	0.1	1		
Senna glutinosa subsp. *glutinosa*	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna glutinosa subsp. *pruinosa*	0.1	1.7		
Senna glutinosa subsp. x *luerssenii*	0.1	1.5		
Seringia exastia	0.1	0.3		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.3	CPH017-01	
Solanum lasiophyllum	0.1	0.3		
Tribulus suberosus	0.1	0.4		
Triodia wiseana	40	0.4		

Central Pilbara Hub **Site CPH-048**



Date	14/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	684169 mE;	7468808 mN
	118.795287 E	-22.878505 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Themeda triandra, Aristida inaequiglumis, Eulalia aurea* low sparse tussock grassland with *Acacia aptaneura, Acacia pruinocarpa* tall sparse shrubland over *Acacia dictyophleba, Gossypium robinsonii* tall sparse shrubland over *Ptilotus obovatus* var. *obovatus, Maireana villosa* low isolated clumps of shrubs.	
Notes	Loose Ironstone rocks but mostly soil.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.4		
Abutilon lepidum	0.1	0.1		
Abutilon macrum	0.1	0.5		
Abutilon otocarpum	0.1	0.4		
Abutilon sp. Indet	0.1	0.3		
Acacia aptaneura	0.5	5		
Acacia dictyophleba	0.1	3		
Acacia elachantha	0.1	1.7	CPH048-10	
Acacia pruinocarpa	0.5	3.5		
Alternanthera nana	0.1	0.2		
Anthobolus leptomerioides	0.1	1.2		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	1	0.6	CPH048-11	
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.2		
Boerhavia repleta	0.1	0.1		
**Cenchrus ciliaris*	0.1	0.5		
Chrysopogon fallax	0.1	0.7		
Corchorus tridens	0.1	0.1		
Corymbia deserticola subsp. *deserticola*	0.1	7.5		
Crotalaria medicaginea var. *neglecta*	0.1	0.3		
Cucumis variabilis	0.1	0		
Dactyloctenium radulans	0.1	0.1		
Dendrophyllanthus erwinii	0.1	0.2		
Digitaria brownii	0.1	0.3	CPH048.02	
Digitaria ctenantha	0.1	0.2		
Duperreya commixta	0.1	0		
Enneapogon caerulescens	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Enneapogon polyphyllus	0.1	0.2		
Enneapogon robustissimus	0.1	0.2		
Eriachne mucronata	0.1	0.4	CPH048-07	
Eulalia aurea	0.1	0.2		
Euphorbia biconvexa	0.1	0.2	CPH048-01	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Glycine canescens	0.1	0	CPH048-05	
Gomphrena canescens	0.1	0.2		
Goodenia stellata	0.1	0.1	CPH048-06	
Gossypium australe	0.1	0.3		
Gossypium robinsonii	0.5	2.5		
Hibiscus burtonii	0.1	0.4		
Hibiscus sturtii var. *platychlamys*	0.1	0.3	CPH036-16	
Isotropis iophyta	0.1	0.3		
Maireana villosa	0.5	0.3		
**Malvastrum americanum*	0.1	0.2		
Melhania oblongifolia	0.1	0.3		
Paraneurachne muelleri	0.1	0.3		
Paspalidium rarum	0.1	0.1	CPH048-08	
Perotis rara	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus astrolasius	0.1	1		
Ptilotus clementii	0.1	0.3		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	1	0.6		
Ptilotus polystachyus	0.1	0.3	CPH048-13	
Rhagodia eremaea	0.1	1		
Rhynchosia minima	0.1	0		
Salsola australis	0.1	0.2		Dead
Senna artemisioides subsp. *helmsii*	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.8		
Senna glutinosa subsp. x *luerssenii*	0.1	1		
Setaria surgens	0.1	0.2	CPH048-12	
Sida platycalyx	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2	CPH036-13	
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.4		
Solanum lasiophyllum	0.1	0.3		
Sporobolus australasicus	0.1	0.1		
Stylobasium spathulatum	0.1	1.5		
Tephrosia sp. Newman (A.A. Mitchell PRP 29)	0.1	0.3	CPH001-	
Themeda triandra	3	0.2		
Tragus australianus	0.1	0.1		
Tribulus ?hirsutus	0.1	0.2	CPH048-03	
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.3		
Triodia pungens	0.1	0.4		

Central Pilbara Hub **Site CPH-049**



Date	14/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	683293 mE;	7469896 mN
	118.786623 E	-22.868775 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* low hummock grassland with *Eucalyptus gamophylla* low open woodland over *Acacia atkinsiana, Acacia bivenosa, Ptilotus rotundifolius* mid to low sparse shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.2		
Acacia atkinsiana	0.2	1.4		
Acacia bivenosa	0.5	1.7		
Acacia pruinocarpa	0.1	1.5		
Alternanthera nana	0.1	0.1		
Aristida inaequiglumis	0.1	0.4		
**Cenchrus ciliaris*	0.1	0.3		
Crotalaria medicaginea var. *neglecta*	0.1	0.1		
Cymbopogon ambiguus	0.1	0.3		
Dendrophyllanthus erwinii	0.1	0.1		
Duperreya commixta	0.1	0		
Enneapogon caerulescens	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eriachne mucronata	0.1	0.3		
Eriachne pulchella	0.1	0.1		
Eucalyptus gamophylla	5	2		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	2.5		
Eulalia aurea	0.1	0.2		
Euphorbia biconvexa	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH049-01	
Gossypium robinsonii	0.1	1.2		
Hibiscus sturtii var. *platychlamys*	0.1	0.3	CPH036-16	
Indigofera monophylla	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	0		
Maireana villosa	0.1	0.1		
Melhania oblongifolia	0.1	0.4		
Paraneurachne muelleri	0.1	0.2		
Ptilotus astrolasius	0.1	0.3		
Ptilotus calostachyus	0.1	0.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus clementii	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus rotundifolius	0.1	0.8		
Rhagodia eremaea	0.1	0.3		
Rhynchosia minima	0.1	0		
Schizachyrium fragile	0.1	0.1		
Senna artemisioides subsp. *helmsii*	0.1	0.5		
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Senna glutinosa subsp. x *luerssenii*	0.1	0.9		
Seringia exastia	0.1	0.4		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.4		
Solanum lasiophyllum	0.1	0.3		
Themeda triandra	0.1	0.5		
Triodia pungens	35	0.3		
Vincetoxicum lineare	0.1	0.1	CPH012-01	

Central Pilbara Hub **Site CPH-050**



Date 15/03/2022
Described by Ryonen Butcher, Emily Eakin-Busher
Type Quadrat 50m x 50m
Location MGA Zone 50
685217 mE; 7468152 mN
118.805577 E -22.884307 S
Veg Condition Very Good
Soil Silty Loam
Rock Type None Discernible
Fire Age Moderate (3 to 5 yr)
Habitat Stony Plain
Vegetation *Triodia melvillei, Eulalia aurea* mid open hummock and tussock grassland with *Acacia aptaneura, Acacia pruinocarpa, Hakea lorea* subsp. *lorea* tall open shrubland over *Anthobolus leptomerioides* mid isolated clumps of shrubs over *Ptilotus astrolasius* low isolated clumps of shrubs.
Notes Riccia in clay soils under mulga.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Indet	0.1	0.5		Sterile
Acacia aptaneura	10	6	CPH033-2	
Acacia pachyacra	0.1	1.3	CPH050-04	
Acacia pruinocarpa	0.1	3.5		
Alternanthera nana	0.1	0.2		Resprout
Anthobolus leptomerioides	0.5	1.7	CPH034-04	
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.2		
Aristida inaequiglumis	0.5	0.3	CPH036-08	
Boerhavia coccinea	0.1	0.1	CPH034-01	
Chrysopogon fallax	0.1	0.3		
Cucumis variabilis	0.1	0.1		
Digitaria ammophila	0.1	0.1	CPH050-02	
Digitaria brownii	0.1	0.3	CPH036-12	
Duperreya commixta	0.1	0.1		
Enchylaena tomentosa var. *tomentosa*	0.1	0.1	CPH034-12	
Eremophila latrobei subsp. *filiformis*	0.1	1.3		
Eriachne helmsii	0.1	0.2	CPH036-17	
Eulalia aurea	2	0.4		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	4.5		
Hibiscus burtonii	0.1	0.9	CPH033-1	
Hibiscus sturtii var. *platychlamys*	0.1	0.3	CPH036-16	
Indigofera georgei	0.1	0.2		
Isotropis iophyta	0.1	0.7		
Paraneurachne muelleri	0.1	0.2		
Psydrax latifolia	0.1	1.2		
Ptilotus astrolasius	0.1	0.4	CPH050-03	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1	CPH036-13	
Solanum lasiophyllum	0.1	0.4		
Themeda triandra	0.1	0.3		
Triodia melvillei	15	0.7	CPH050-01	

Central Pilbara Hub **Site CPH-051**



Date	15/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	686042 mE;	7467992 mN
	118.813635 E	-22.885660 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Triodia pungens* low hummock grassland with *Acacia pruinocarpa, Eucalyptus gamophylla* low open woodland with *Ptilotus rotundifolius, Senna glutinosa* subsp. *glutinosa, Hakea lorea* subsp. *lorea* mid to tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Indet	0.1	0.2		Sterile
Acacia ancistrocarpa	0.1	2.5		
Acacia aptaneura	0.1	3.5	CPH051-06	
Acacia atkinsiana	0.1	1.8	CPH051-03	
Acacia dictyophleba	0.1	1.8		
Acacia elachantha	0.1	2.8	CPH051-01	
Acacia pruinocarpa	2	4		
Amphipogon sericeus	0.1	0.5	CPH051-07	
Aristida holathera var. *holathera*	0.1	0.4	CPH021.06	
Cassytha filiformis	0.1	0.1	CPH035-03	
Chrysopogon fallax	0.1	0.5		
Corymbia deserticola subsp. *deserticola*	0.1	3.6		
Digitaria brownii	0.1	0.6	CPH051-05	
Duperreya commixta	0.1	0.1		
Eragrostis eriopoda	0.1	0.1	CPH051-10	
Eremophila forrestii subsp. *forrestii*	0.1	0.7		
Eremophila longifolia	0.1	0.4		
Eriachne mucronata	0.1	0.3		
Eucalyptus gamophylla	2	6		
Euphorbia tannensis subsp. *eremophila*	0.1	0.3	CPH051-08	
Gompholobium oreophilum	0.1	0.4		
Hakea lorea subsp. *lorea*	0.1	3.6		
Hibiscus burtonii	0.1	0.4	CPH031.03	
Hibiscus coatesii	0.1	0.4	CPH051-09	
Hibiscus sturtii var. *campylochlamys*	0.1	0.8	CPH030-01	
Indigofera georgei	0.1	0.4	CPH051-02	
Jasminum didymum subsp. *lineare*	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		
Peripleura obovata	0.1	0.4	CPH030-06	
Pterocaulon sphacelatum	0.1	0.5	CPH031.09	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus calostachyus	0.1	0.5		
Ptilotus rotundifolius	0.1	1.3		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.2	CPH051-11	
Seringia exastia	0.1	0.5		
Sida fibulifera	0.1	0.2		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.4	CPH031.08	
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.4	CPH051-04	
Solanum lasiophyllum	0.1	0.2		
Trachymene oleracea subsp. *oleracea*	0.1	0.3		Dead
Triodia pungens	40	0.4		

Central Pilbara Hub **Site CPH-053**



Date	14/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	682328 mE;	7473399 mN
	118.776804 E	-22.837250 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii, Triodia wiseana* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Senna glutinosa* subsp. *pruinosa, Acacia dictyophleba* mid isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia ancistrocarpa	0.1	2		
Acacia bivenosa	0.1	0.4		
Acacia cowleana	0.1	3		
Acacia dictyophleba	0.1	2		
Amphipogon sericeus	0.1	0.3		
Aristida contorta	0.1	0.1		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.4		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.3		
Cymbopogon obtectus	0.1	0.3		
Digitaria brownii	0.1	0.4		
Dodonaea coriacea	0.1	1		
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2	CPH053.03	
Eragrostis eriopoda	0.1	0.3		
Eucalyptus gamophylla	0.1	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	3	5		
Eulalia aurea	0.1	0.5		
Euphorbia boophthona	0.1	0.3		
Euploca tenuifolia	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.2	CPH053.02	
Gompholobium oreophilum	0.1	0.3		
Goodenia microptera	0.1	0.1		
Goodenia stobbsiana	0.1	0.1		
Goodenia triodiophila	0.1	0.3		
Indigofera monophylla	0.1	0.4		
Paraneurachne muelleri	0.1	0.5		
Peripleura obovata	0.1	0.3	CPH053.01	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus astrolasius	0.1	0.2		
Ptilotus calostachyus	0.1	0.4		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus rotundifolius	0.1	0.4		
Rhynchosia minima	0.1	0.1		
Senna artemisioides subsp. *oligophylla*	0.1	1.3		
Senna glutinosa subsp. *glutinosa*	0.1	0.7		
Senna glutinosa subsp. *pruinosa*	0.1	1.7		
Solanum lasiophyllum	0.1	0.3		
Themeda triandra	0.1	0.7		
Triodia pungens	0.1	0.3		
Triodia vanleeuwenii	50	4		
Triodia wiseana	1	0.8		

Central Pilbara Hub **Site CPH-054**



Date	15/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	685496 mE;	7468454 mN
	118.808259 E	-22.881552 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia, Eucalyptus gamophylla* low open woodland over *Seringia exastia* low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	0.8	CPH024-07	
Acacia ancistrocarpa	0.1	0.7	CPH024-03	
Acacia bivenosa	0.1	1.2		
Acacia colei var. *colei*	0.1	1.7		
Acacia dictyophleba	0.1	3.9		
Acacia tenuissima	0.1	0.5	CPH054-03	
Amphipogon sericeus	0.1	0.2	CPH009-1	
Aristida sp. Indet	0.1	0.4		Sterile
Duperreya commixta	0.1	0.1		
Eragrostis eriopoda	0.1	0.1	CPH054-01	
Eriachne lanata	0.1	0.2	CPH012-09	
Eucalyptus gamophylla	2	3.8		
Eucalyptus leucophloia subsp. *leucophloia*	1	5.5		
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Ptilotus calostachyus	0.1	1.5		
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Ptilotus rotundifolius	0.1	0.7		
Santalum lanceolatum	0.1	1		
Senna artemisioides subsp. *oligophylla*	0.1	0.3		
Senna glutinosa subsp. *pruinosa*	0.1	1		
Senna glutinosa subsp. x *luerssenii*	0.1	0.8		
Seringia exastia	1	0.4		
Sida sp. Indet	0.1	0.1	CPH054-02	Sterile
Triodia pungens	35	0.4		

Central Pilbara Hub **Site CPH-055**



Date	24/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	685300 mE;	7467279 mN
	118.806487 E	-22.892179 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	None Discernible	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Themeda triandra* mid tussock grassland with *Hakea lorea* subsp. *lorea* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	0.1	4	CPH55-19	
Acacia colei var. *colei*	0.1	1.2		
Alternanthera nana	0.1	0.3	CPH55-09	
Aristida contorta	0.1	0.2	CPH55-17	
Aristida inaequiglumis	0.1	0.4	CPH55-10	
Aristida lazaridis (P2)	0.1	0.3	CPH55-01	
Arivela viscosa	0.1	0.1		
Boerhavia repleta	0.1	0.1	CPH55-20	
Chrysopogon fallax	0.1	0.4		
Cucumis variabilis	0.1	0.1		
Dichanthium sericeum subsp. *humilius*	0.1	0.1	CPH55-11	
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2	CPH55-12	
Eremophila lanceolata	0.1	0.8	CPH55-05	
Eremophila longifolia	1	2	CPH55-06	
Eulalia aurea	1	1.2		
Euphorbia ?trigonosperma	0.2	0.1	CPH55-07	
Euphorbia drummondii	0.1	0.1	CPH55-08	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Goodenia prostrata	0.1	0.1	CPH55-04	
Hakea lorea subsp. *lorea*	2	7.5		
Ipomoea polymorpha	0.1	0.1	CPH55-22	
Maireana villosa	0.1	0.2	CPH55-13	
Perotis rara	0.1	0.1		
Pluchea dunlopii	0.1	0.4	CPH55-02	
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	1	CPH55-16	
Sclerolaena ?cornishiana	0.1	0.3	CPH55-14	
Senna notabilis	0.1	0.1		
Sida platycalyx	0.1	0.2	CPH55-03	
Sida sp. L (A.M. Ashby 4202)	0.1	0.3	CPH55-18	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Themeda triandra	70	0.8		
Trichodesma zeylanicum var. *zeylanicum*	0.1	1.4		

Central Pilbara Hub **Site CPH-056**



Date	14/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	682284 mE;	7472724 mN
	118.776456 E	-22.843352 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	

Vegetation *Themeda triandra, Paraneurachne muelleri, Aristida inaequiglumis, Eulalia aurea* mid tussock grassland with *Eucalyptus xerothermica, Eucalyptus gamophylla* low open woodland over *Acacia cowleana, Acacia steedmanii* subsp. *borealis*, *Acacia ancistrocarpa* mid sparse shrubland over *Triodia pungens* low sparse hummock grassland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cryptopetalum	0.1	0.4		
Abutilon macrum	0.1	0.2		
Acacia ancistrocarpa	0.1	0.7		
Acacia cowleana	0.1	1.9		
Acacia dictyophleba	0.1	1.8		
Acacia monticola	0.1	0.7		
Acacia pruinocarpa	0.1	0.3		
Acacia steedmanii subsp. *borealis*	1	1.4	CPH056.01	
Afrohybanthus aurantiacus	0.1	0.4		
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	2	0.5		
Arivela viscosa	0.1	0.2		
Blumea tenella	0.1	0.1	CPH042.09	
Bonamia erecta	0.1	0.3		
Chrysopogon fallax	0.1	0.4		
Corymbia deserticola subsp. *deserticola*	0.1	4		
Crotalaria medicaginea var. *neglecta*	0.1	0.2		
Dactyloctenium radulans	0.1	0.1		
Digitaria brownii	0.1	0.3	CPH051-05	
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.5	CPH028.05	
Enneapogon polyphyllus	0.1	0.2	CPH056.08	
Eragrostis olida	0.1	0.3	CPH021.05	
Eremophila longifolia	0.1	0.6		
Eucalyptus gamophylla	0.1	3.5		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	3		
Eucalyptus xerothermica	4	4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Eulalia aurea	2	0.5		
Euphorbia australis var. *subtomentosa*	0.1	0.1		
Euphorbia sp. Indet	0.1	0.1		Biconvexa/ trigonosperma
Euploca tenuifolia	0.1	0.2	CPHR001.06	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Gomphrena canescens	0.1	0.2		
Goodenia microptera	0.1	0.2		
Hibiscus burtonii	0.1	0.4	CPH056.03	
Hibiscus sturtii var. *campylochlamys*	0.1	0.3	CPH030-01	
Indigofera georgei	0.1	0.3		
Indigofera monophylla	0.1	0.2		
Isotropis iophyta	0.1	0.5		
Jasminum didymum subsp. *lineare*	0.1	0.6		
Maireana planifolia	0.1	0.3	CPH056.05	
Paraneurachne muelleri	2	0.4		
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.4		
Ptilotus astrolasius	0.1	0.2		
Ptilotus calostachyus	0.1	0.8		
Ptilotus exaltatus	0.1	0.2		
Ptilotus helipteroides	0.1	0.2	CVT4.01	
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus polystachyus	0.1	0.3	CPH056.06	
Rhynchosia minima	0.1	0.1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Sclerolaena cornishiana	0.1	0.3	CPH056.04	
Senna artemisioides subsp. *oligophylla*	0.1	0.4		
Senna artemisioides subsp. x *artemisioides*	0.1	0.8	CPH021.07	
Senna notabilis	0.1	0.2		
Senna pleurocarpa var. *angustifolia*	0.1	0.4		
Seringia exastia	0.1	0.4		
Setaria surgens	0.1	0.1	CPH056.07	
Sida fibulifera	0.1	0.2		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.6	CPH015.04	
Solanum lasiophyllum	0.1	0.4		
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)	0.1	0.1	CPH056.02	
Themeda triandra	40	0.5		
Tribulus hirsutus	0.1	0.1		
Triodia pungens	3	0.4		
Vigna lanceolata	0.1	0.1		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-057**



Date	14/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	683007 mE;	7470260 mN
	118.783794 E	-22.865520 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* low hummock grassland with *Eucalyptus gamophylla, Acacia atkinsiana* tall isolated clumps of shrubs with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon macrum	0.1	0.3		
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia atkinsiana	2	3		
Acacia bivenosa	0.1	1.2		
Acacia steedmanii subsp. *borealis*	0.1	2		
Acacia tenuissima	0.1	0.9		
Aristida sp. Indet	0.1	0.2		Sterile
Capparis lasiantha	0.1	0.5		
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.1		
Eucalyptus gamophylla	3	4		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	5.5		
Euphorbia tannensis subsp. *eremophila*	0.1	0.4		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Gompholobium oreophilum	0.1	0.3		
Gossypium robinsonii	0.1	2		
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	1		
Melhania oblongifolia	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		
Ptilotus calostachyus	0.1	0.4		
Ptilotus clementii	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus rotundifolius	0.1	0.6		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Schizachyrium fragile	0.1	0.1		
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Senna glutinosa subsp. x *luerssenii*	0.1	1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna notabilis	0.1	0.1		
Themeda triandra	0.1	0.4		
Triodia pungens	35	0.4		
Vincetoxicum lineare	0.1	0	CPH012-01	

Central Pilbara Hub **Site CPH-058**



Date	14/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	678676 mE;	7475012 mN
	118.741041 E	-22.823078 S
Veg Condition	Very Good	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Medium Drainage Line	
Vegetation	Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186), Acacia pyrifolia var. pyrifolia, Androcalva luteifolia mid to low open shrubland over Themeda triandra, Cymbopogon ambiguus low sparse grassland with Eucalyptus xerothermica low isolated trees.	
Notes	100m x 25m, bearing 50. Note that tape is on northern side. Some is floodplain that is consistent with channel vegetation.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon amplum	0.1	0.4		
Abutilon lepidum	0.1	0.6	CPH058-03	
Abutilon otocarpum	0.1	0.5		
Acacia maitlandii	0.1	3		
Acacia pyrifolia var. *pyrifolia*	0.1	1.2		
Afrohybanthus aurantiacus	0.1	0.5		
Alternanthera nana	0.1	0.2		
Androcalva luteiflora	0.1	2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.6		
Arivela viscosa	0.1	0.2		
**Bidens bipinnata*	0.1	0.3		
Boerhavia coccinea	0.1	0.1		
**Cenchrus ciliaris*	2	0.5		
**Cenchrus setiger*	0.1	0.5		
Chrysocephalum apiculatum	0.1	0.3		
Corchorus crozophorifolius	0.1	0.5		
Corchorus sidoides subsp. *sidoides*	0.1	0.1	CPH058-02	
Corchorus tridens	0.1	0.1		
Corymbia hamersleyana	0.1	7.5		
Crotalaria medicaginea var. *neglecta*	0.1	0.2		
Cucumis variabilis	0.1	0		
Cymbopogon ambiguus	0.5	0.5		
Digitaria ctenantha	0.1	0.2		
Enneapogon lindleyanus	0.5	0.3		
Eucalyptus victrix	0.1	6		
Eucalyptus xerothermica	0.5	9		
Eulalia aurea	0.1	0.6		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Euphorbia biconvexa	0.1	0.2		
Euphorbia sp. Indet	0.1	0.1		Sterile
Euploca tenuifolia	0.1	0.2		
Evolvulus alsinoides var. *decumbens*	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Gomphrena canescens	0.1	0.3		
Gossypium australe	0.1	0.3		
Gossypium robinsonii	0.1	1.8		
Hibiscus burtonii	0.1	0.4		
Isotropis iophyta	0.1	0.6		
**Malvastrum americanum*	0.1	0.3		
Melhania oblongifolia	0.1	0.3		
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		
Paspalidium rarum	0.1	0.2	CPH048-08	
Polycarpaea longiflora	0.1	0.3		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Rhynchosia minima	0.1	0		
Rostellularia adscendens var. *latifolia* (P3)	0.1	0.2	CPH058-01	
Setaria surgens	0.1	0.2	CPH048-12	
Sida ?echinocarpa	0.1	0.3	CPH058-04	
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.5		
Solanum lasiophyllum	0.1	0.3		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	8	0.8		
Themeda triandra	1	0.4		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.5		
Triodia pungens	0.1	0.3		

Central Pilbara Hub **Site CPH-059**



Date	31/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	679410 mE;	7475829 mN
	118.748102 E	-22.815621 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Other	
Vegetation	*Acacia incurvaneura, Acacia macraneura, Acacia pruinocarpa* low woodland over *Aristida contorta, Triodia melvillei, Aristida obscura* low sparse tussock and hummock grassland.	
Notes	Stony clay plain. Patches of woodland switch from dense to sparse within quadrat- external vegetation is more open.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cryptopetalum	0.1	0.4		
Abutilon fraseri subsp. *fraseri*	0.1	0.4	CPH036-14	
Abutilon otocarpum	0.1	0.3		
Acacia incurvaneura	0.5	2.3	CPH059-06	
Acacia macraneura	15	6	CPH064-03	
Acacia pachyacra	0.1	0.5		
Acacia pruinocarpa	0.1	5		
Acacia sibirica	0.1	4.5	CPH059-06	
Alternanthera nana	0.1	0.2		
Aristida contorta	1	0.3		
Aristida inaequiglumis	0.1	0.6		
Aristida obscura	0.5	0.2		
Arivela viscosa	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0		
Boerhavia repleta	0.1	0.1		
Capparis lasiantha	0.1	0		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	0.1	0.5		
Convolvulus remotus	0.1	0.1		
Cucumis variabilis	0.1	0		
Cymbopogon ambiguus	0.1	0.4		
Dichanthium sericeum subsp. *humilius*	0.1	0.1		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.1	0.4		
Digitaria ctenantha	0.1	0.2		
Duperreya commixta	0.1	0		
Enneapogon lindleyanus	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Enneapogon polyphyllus	0.1	0.2		
Eremophila forrestii subsp. *forrestii*	0.1	0.8		
Eremophila lanceolata	0.1	0.2		
Eremophila latrobei subsp. *filiformis*	0.1	0.4		
Eulalia aurea	0.5	0.5		
Euphorbia biconvexa	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Goodenia muelleriana	0.1	0.1	CPH066-07	
Goodenia prostrata	0.1	0.1	CPH059-04	
Gossypium australe	0.1	0.1		
Grevillea berryana	0.1	5		
Hibiscus sturtii var. *platychlamys*	0.1	0.3	CPH094-01	
Iseilema eremaeum	0.1	0.1	CPH071-01	
Maireana planifolia	0.1	0.3	CPH059-05	
Maireana villosa	0.5	0.3	CPH066-02	
Panicum decompositum	0.1	0.3		
Paraneurachne muelleri	0.1	0.3		
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Ptilotus helipteroides	0.1	0.2		
Ptilotus obovatus var. *obovatus*	1	0.4		
Rhagodia eremaea	0.5	1		
Senna artemisioides subsp. *helmsii*	0.1	0.1		
Senna glaucifolia	0.1	0.1		
Senna glutinosa subsp. *glutinosa*	0.1	1.7	CPH059-01	
Senna notabilis	0.1	0.1		
Sida fibulifera	0.1	0.1		
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.8		
Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	0.1	0.6	CPH066-01	
Themeda triandra	0.1	0.6		
Tragus australianus	0.1	0.2		
Triodia melvillei	1	0.4		
Tripogonella loliiformis	0.1	0.1	CPH059-02	
Urochloa distachyos	0.1	0.2	CPH059-03	

Central Pilbara Hub **Site CPH-060**



Date	14/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	677596 mE;	7477378 mN
	118.730252 E	-22.801825 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia vanleeuwenii* low open hummock grassland with *Corymbia deserticola* subsp. *deserticola* low open woodland over *Acacia tenuissima, Acacia hilliana* mid to low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia elachantha	0.1	0.2	CPH048-10	
Acacia hilliana	1	0.4		
Acacia tenuissima	1	1.4		
Amphipogon sericeus	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.4		
Bonamia erecta	0.1	0.2		
Codonocarpus cotinifolius	0.1	0.8		
Corchorus lasiocarpus subsp. *lasiocarpus*	0.1	0.3		
Corymbia deserticola subsp. *deserticola*	2	6		
Cymbopogon obtectus	0.1	0.6		
Duperreya commixta	0.1	0		
Fimbristylis dichotoma	0.1	0.1	CPH060-01	
Gompholobium oreophilum	0.1	0.4		
Goodenia stobbsiana	0.1	0.1		
Goodenia triodiophila	0.1	0.1		
Hakea lorea subsp. *lorea*	0.2	2.5		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0		
Panicum effusum	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Pterocaulon sphacelatum	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.6		
Solanum lasiophyllum	0.1	0.3		
Themeda triandra	0.1	0.5		
Triodia vanleeuwenii	25	0.2		

Central Pilbara Hub **Site CPH-061**



Date	31/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	679050 mE;	7478154 mN
	118.744324 E	-22.794666 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens, Triodia melvillei* mid open hummock grassland with *Eucalyptus gamophylla, Acacia aptaneura, Acacia pruinocarpa* low open woodland over *Acacia atkinsiana* tall sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.3		
Acacia aptaneura	0.1	5	CPH061-01	
Acacia atkinsiana	3	2.8		
Acacia bivenosa	0.1	0.6		
Acacia pruinocarpa	1	3.5		
Acacia sibirica	0.1	2.5		
Anthobolus leptomerioides	0.1	1.5		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Corchorus sidoides subsp. *sidoides*	0.1	0.3		
Cucumis variabilis	0.1	0		
Cymbopogon ambiguus	0.1	0.3		
Digitaria brownii	0.1	0.3		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	0.3		
Enneapogon polyphyllus	0.1	0.3		
Eremophila forrestii subsp. *forrestii*	0.1	1		
Eremophila latrobei	0.1	1.2		
Eremophila longifolia	0.1	0.6		
Eriachne pulchella	0.1	0.1		
Eucalyptus gamophylla	3	4.5		
Eulalia aurea	0.1	0.9		
Euphorbia sp. Indet	0.1	0.1		Sterile
Evolvulus alsinoides var. *villosicalyx*	0.1	0.3		
Goodenia muelleriana	0.1	0.3		
Hakea chordophylla	0.1	0.6		
Hibiscus burtonii	0.1	0.2		
Hibiscus coatesii	0.1	0.2	CPH061-01	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Hibiscus sturtii var. *platychlamys*	0.1	0.1		
Indigofera georgei	0.1	0.5		
Indigofera monophylla	0.1	0.3		
Leichhardtia australis	0.1	0		
Maireana villosa	0.1	0.3	CPH061-02	
Panicum decompositum	0.1	0.5		
Paraneurachne muelleri	0.1	0.4		
Psydrax latifolia	0.1	0.2		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus astrolasius	0.1	0.2		
Ptilotus calostachyus	0.1	0.6		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	0.6		
Senna glutinosa subsp. *glutinosa*	0.1	1.8		
Senna notabilis	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.5		
Solanum ferocissimum	0.1	0.3		
Solanum lasiophyllum	0.1	0.4		
Themeda triandra	1	0.6		
Triodia melvillei	1	0.7		
Triodia pungens	25	0.5		

Central Pilbara Hub **Site CPH-062**



Date	31/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	677979 mE;	7479367 mN
	118.733758 E	-22.783830 S
Veg Condition	Excellent	
Soil	Light Medium Clay	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Themeda triandra, Triodia pungens* mid tussock and hummock grassland with *Eucalyptus xerothermica, Corymbia hamersleyana* low open woodland over *Acacia maitlandii, Acacia tenuissima, Acacia pyrifolia* var. *pyrifolia* mid to tall sparse shrubland.	
Notes	100m x 25m, bearing 110.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	0.1	2		
Acacia maitlandii	1	2		
Acacia pruinocarpa	0.1	2.6		
Acacia pyrifolia var. *pyrifolia*	0.1	1.5		
Acacia sibirica	0.1	2	CPH 062-01	
Acacia tenuissima	0.5	1.8		
Alternanthera nana	0.1	0.2		
Androcalva luteiflora	0.1	1.4		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.8	CPH 062-03	
Boerhavia coccinea	0.1	0.1		
Bonamia erecta	0.1	0.2		
Bothriochloa ewartiana	0.1	1		
Chrysocephalum gilesii	0.1	0.3		
Chrysopogon fallax	1	0.7		
Corchorus sidoides subsp. *sidoides*	0.1	0.2	CPH 062-02	
Corymbia hamersleyana	2	7		
Cymbopogon ambiguus	0.1	0.4		
Duperreya commixta	0.1	0.1		
Eragrostis eriopoda	0.1	0.3	CPH 062-04	
Eriachne mucronata	0.1	0.4		
Eucalyptus xerothermica	5	7		
Eulalia aurea	0.1	0.8		
Euploca tenuifolia	0.1	0.2		Dead
Evolvulus alsinoides var. *decumbens*	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Glycine canescens	0.1	0.1		
Goodenia microptera	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Goodenia stellata	0.1	0.1		
Gossypium australe	71	1		
Gossypium robinsonii	0.1	1.6		
Hakea chordophylla	0.1	2		
Hibiscus sturtii var. *campylochlamys*	0.1	0.2		
Indigofera georgei	0.1	0.4		
Isotropis iophyta	0.1	1		
Jasminum didymum subsp. *lineare*	0.1	0.7		
Leichhardtia australis	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Pluchea dentex	0.1	0.4		
Polymeria ambigua	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.4		
Ptilotus astrolasius	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Rhynchosia minima	0.1	0.1		
Santalum lanceolatum	0.1	1.4		
Scaevola amblyanthera var. *centralis*	0.1	0.2	CPH 062-05	
Senna artemisioides subsp. *oligophylla*	0.1	0.3		
Senna ferraria	0.1	1.2	COH 062-06	
Senna sp. Indet	0.1	0.1		Seedling
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.6		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	0.1	0.4		
Themeda triandra	15	0.8		
Triodia pungens	15	0.5		
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)	0.1	0.4		Growing through dead *Triodia*

Central Pilbara Hub **Site CPH-063**



Date	31/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	679397 mE;	7476592 mN
	118.747882 E	-22.808731 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Undulating Low Hills	

Vegetation *Triodia vanleeuwenii* low open hummock grassland with *Acacia sibirica, Acacia kempeana* tall isolated clumps of shrubs with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia deserticola* subsp. *deserticola* low isolated trees.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	3	CPH063-01	
Acacia bivenosa	0.1	1		
Acacia kempeana	1	3	CPH063-03	
Acacia sibirica	1	4	CPH063-02 CPH059-04	
Amphipogon sericeus	0.1	0.3		
Anthobolus leptomerioides	0.1	0.8		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.3		
Corchorus sidoides subsp. *sidoides*	0.1	0.3	CPH079-02	
Corymbia deserticola subsp. *deserticola*	0.1	6.5		
Cymbopogon ambiguus	0.1	0.3		
Dodonaea coriacea	0.1	0.5		
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.3		
Eragrostis eriopoda	0.1	0.3		
Eremophila forrestii subsp. *forrestii*	0.1	0.6		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	5		
Eulalia aurea	0.1	0.6		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.3		
Hakea chordophylla	0.1	2.3		
Indigofera monophylla	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Psydrax latifolia	0.1	1.4		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus calostachyus	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus rotundifolius	0.1	0.8		
Senna artemisioides subsp. *helmsii*	0.1	0.6		
Senna glutinosa subsp. *glutinosa*	0.1	1.3		
Senna glutinosa subsp. x *luerssenii*	0.1	1.2		
Seringia exastia	0.1	0.5		
Sida arenicola	0.1	1		
Sida cardiophylla	0.1	0.4	CPH094-02	
Sida fibulifera	0.1	0.3		
Solanum lasiophyllum	0.1	0.4		
Triodia melvillei	0.1	0.4		
Triodia pungens	0.1	0.3		
Triodia vanleeuwenii	20	0.3		
Waltheria indica	0.1	0.5		

Central Pilbara Hub **Site CPH-064**



Date	27/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	670758 mE;	7483234 mN
	118.663020 E	-22.749661 S
Veg Condition	Very Good	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Triodia melvillei, Triodia pungens, Themeda triandra* mid hummock and tussock grassland with *Acacia kempeana, Acacia macraneura* tall sparse shrubland with *Eucalyptus xerothermica* low isolated clumps of trees over *Seringia exastia* low sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.4	CPH064-01	
Abutilon otocarpum	0.1	0.3		
Acacia bivenosa	0.1	2		
Acacia dictyophleba	0.1	2.3		
Acacia elachantha	0.1	2	CPH088-07	
Acacia kempeana	1	4	CPH064-02	
Acacia macraneura	0.1	2.5	CPH064-03	
Acacia pachyacra	0.1	1.8		
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.4		
Aristida inaequiglumis	0.1	0.6		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.1		
Bonamia erecta	0.1	0.4		
Capparis lasiantha	0.1	0.1		
Cymbopogon ambiguus	0.1	0.5		
Digitaria ammophila	0.1	0.4		
Digitaria brownii	0.1	0.5		
Duperreya commixta	0.1	0.1		
Enneapogon caerulescens	0.1	0.2		
Enneapogon polyphyllus	0.1	0.3		
Eremophila longifolia	0.1	1.4		
Eucalyptus gamophylla	0.1	3		
Eucalyptus xerothermica	3	7		
Eulalia aurea	0.5	0.7		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Goodenia microptera	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Hibiscus burtonii	0.1	0.4		
Hibiscus sturtii var. *platychlamys*	0.1	0.7	CPH094-01	
Indigofera georgei	0.1	0.5		
Jasminum didymum subsp. *lineare*	0.1	0.1		
**Malvastrum americanum*	0.1	0.5		
Panicum decompositum	0.1	0.2		
Paraneurachne muelleri	0.1	0.4		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Rhagodia eremaea	0.1	1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.7		
Senna notabilis	0.1	0.1		
Senna pleurocarpa var. *angustifolia*	0.1	0.3		
Seringia exastia	2	0.4		
Sida cardiophylla	0.1	0.2	CPH094-02	
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	0.1	0.2	CPH064-04	
Teucrium teucriiflorum	0.1	0.2		
Themeda triandra	1	0.4		
Triodia melvillei	30	0.4		
Triodia pungens	10	0.4		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-066**



Date	27/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	668561 mE;	7483253 mN
	118.641628 E	-22.749709 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Other	
Vegetation	*Themeda triandra, Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3) tall tussock grassland with Acac*ia macraneura, Eucalyptus xerothermica, Corymbia deserticola* subsp. *deserticola* low isolated clumps of trees over *Ptilotus obovatus* var. *obovatus, Sida* sp. L (A.M. Ashby 4202) low isolated clumps of shrubs.	
Notes	Clay plain, Ironstone.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.1		
Acacia macraneura	4	7	CPH066-04	
Acacia pruinocarpa	0.1	1.5		
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.7		
Aristida obscura	0.1	0.4		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.1		
Boerhavia repleta	0.1	0.1		
Chrysopogon fallax	0.1	1.3		
Convolvulus remotus	0.1	0.1		
Corymbia deserticola subsp. *deserticola*	1	4.5		
Digitaria ammophila	0.1	0.5		
Digitaria brownii	0.1	0.7		
Digitaria ctenantha	0.1	0.2		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.5		
Enneapogon polyphyllus	0.1	0.2		
Eremophila lanceolata	0.1	0.3		
Eremophila longifolia	0.1	0.7		
Eucalyptus xerothermica	1	5		
Eulalia aurea	1	0.7		
Euphorbia biconvexa	0.1	0.1		
Euphorbia drummondii	0.1	0.1		
Euphorbia tannensis subsp. *eremophila*	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Goodenia muelleriana	0.1	0.1	CPH066-07	
Goodenia stellata	0.1	0.1	CPH066-05	
Hakea lorea subsp. *lorea*	0.1	4.5		
Hibiscus burtonii	0.1	0.3		
Hibiscus sturtii	0.1	0.3		Sterile
Iseilema eremaeum	0.1	0.1	CPH066-03	
Jasminum didymum subsp. *lineare*	0.1	0.3		
Maireana villosa	0.5	0.5	CPH066-02	
**Malvastrum americanum*	0.1	0.1		
Perotis rara	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	2	0.6		
Rhagodia eremaea	0.1	0.9		
Sclerolaena cornishiana	0.1	0.2	CPH066-06	
Senna notabilis	0.1	0.1		
Setaria surgens	0.1	0.2		
Sida fibulifera	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.5	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.8		
Solanum lasiophyllum	0.1	0.4		
Streptoglossa decurrens	0.1	0.2		
Swainsona kingii	0.1	0.1		
Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	1	1.1	CPH066-01	
Themeda triandra	64	1.1		
Tragus australianus	0.1	0.1		

Central Pilbara Hub **Site CPH-067**



Date	29/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	669582 mE;	7483030 mN
	118.651588 E	-22.751621 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* low hummock grassland with Euca*lyptus gamophylla, Corymbia deserticola* subsp. *deserticola, Eucalyptus xerothermica, Corymbia hamersleyana* low open woodland over mid to low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.4	CPH095-01	
Acacia ancistrocarpa	0.1	1.5		
Acacia aptaneura	0.1	2.2		
Acacia bivenosa	0.1	2.5		
Acacia cowleana	0.4	2.5	CPH68-01	
Acacia dictyophleba	0.1	1.8		
Acacia inaequilatera	0.1	3		
Acacia pachyacra	0.1	1		
Acacia sibirica	0.1	1.8		
Acacia steedmanii subsp. *borealis*	0.1	2		
Acacia tenuissima	0.1	1.1		
Alternanthera nana	0.1	0.3		
Bonamia erecta	0.1	0.3		
Capparis lasiantha	0.1	0.5		
Corymbia deserticola subsp. *deserticola*	0.1	4.5		
Corymbia hamersleyana	0.1	3.5		
Cymbopogon ambiguus	0.1	0.6		
Duperreya commixta	0.1	0		
Eremophila longifolia	0.1	0.8		
Eucalyptus gamophylla	1	4		
Eucalyptus xerothermica	1	6		
Eulalia aurea	0.1	0.6		
Hakea chordophylla	0.1	4		
Indigofera georgei	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.5	1		
Leichhardtia australis	0.1	0		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	1		
Paraneurachne muelleri	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Rhynchosia minima	0.1	0		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.6		
Senna artemisioides subsp. x *artemisioides*	0.1	0.6		
Seringia exastia	0.1	0.4		
Themeda triandra	1	0.6		
Triodia pungens	45	0.4		

Central Pilbara Hub **Site CPH-068**



Date	29/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	670851 mE;	7483708 mN
	118.663870 E	-22.745370 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia melvillei* mid hummock grassland with *Eucalyptus xerothermica* low isolated trees over *Acacia cowleana, Acacia tenuissima* tall isolated shrubs over *Seringia exastia* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	0.1	0.9		
Acacia bivenosa	0.1	2.5		
Acacia cowleana	1	3	CPH068-01	
Acacia pachyacra	0.1	0.3		
Acacia steedmanii subsp. *borealis*	0.1	1.2		
Acacia tenuissima	1	2.5		
Alternanthera nana	0.1	0.3		
Anthobolus leptomerioides	0.1	1		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.4		
Aristida pruinosa	0.1	0.4	CPH068-04	
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.1		
Capparis lasiantha	0.1	0.6		
Cymbopogon ambiguus	0.1	0.5		
Digitaria brownii	0.1	0.3		
Eremophila longifolia	0.1	1.6		
Eucalyptus gamophylla	1	3.5		
Eucalyptus xerothermica	2	6		
Eulalia aurea	0.1	0.5		
Goodenia microptera	0.1	0.3		
Goodenia stellata	0.1	0.2		
Hakea chordophylla	0.1	1.6		
Hibiscus burtonii	0.1	0.3		
Indigofera georgei	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	1		
Leichhardtia australis	0.1	0		
Paraneurachne muelleri	0.1	0.4		
Peripleura arida	0.1	0.2	CPH068-02	
Ptilotus obovatus var. *obovatus*	0.1	0.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	0.6	CPH068-03	
Senna pleurocarpa var. *angustifolia*	0.1	0.5		
Seringia exastia	1	0.4		
Themeda triandra	0.1	0.6		
Triodia melvillei	30	1		

Central Pilbara Hub **Site CPH-069**



Date	27/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	668978 mE;	7483974 mN
	118.645605 E	-22.743155 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia vanleeuwenii, Triodia pungens* low hummock grassland with *Eucalyptus gamophylla, Eucalyptus leucophloia* subsp. *leucophloia* low open woodland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.5	CPH069-02	
Acacia bivenosa	0.1	1.5		
Acacia cowleana	0.1	1.6		
Acacia inaequilatera	0.1	1.5		
Acacia sericophylla	0.1	2.2		
Acacia steedmanii subsp. *borealis*	0.1	2.5		
Anthobolus leptomerioides	0.1	1		
Aristida holathera var. *holathera*	0.1	0.3		
Bonamia erecta	0.1	0.4		
Corymbia hamersleyana	1	5		
Cymbopogon ambiguus	0.1	0.6		
Dicrastylis cordifolia	0.1	0.6		
Duperreya commixta	0.1	0.1		
Eremophila platycalyx	0.1	1.6	CPH069-01	
Eriachne lanata	0.1	0.1	CPH012-09	
Eriachne mucronata	0.1	0.3		
Eucalyptus gamophylla	7	4		
Eucalyptus leucophloia subsp. *leucophloia*	2	6		
Eulalia aurea	0.1	0.7		
Gompholobium oreophilum	0.1	1		
Goodenia triodiophila	0.1	0.3		
Hakea chordophylla	0.1	0.4		
Indigofera monophylla	0.1	0.5		
Jasminum didymum subsp. *lineare*	0.1	1		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	0.5		
Paraneurachne muelleri	0.1	0.3		
Ptilotus polystachyus	0.1	1.2		
Ptilotus rotundifolius	0.1	1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna glutinosa subsp. x *luerssenii*	0.1	0.4		
Senna pleurocarpa var. *angustifolia*	0.1	0.3		
Seringia exastia	0.1	0.4		
Solanum lasiophyllum	0.1	0.2		
Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)	0.1	0.3		
Themeda triandra	0.1	0.5		
Triodia pungens	3	0.5		
Triodia vanleeuwenii	35	0.3		

Central Pilbara Hub **Site CPH-070**



Date	27/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	668400 mE;	7483554 mN
	118.640025 E	-22.747004 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Triodia wiseana, Themeda triandra* low open hummock and tussock grassland with *Acacia adoxa* var. *adoxa*, *Tephrosia densa* low open shrubland with *Corymbia hamersleyana* low open woodland over *Gossypium robinsonii, Acacia marramamba* mid to tall sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	10	0.4		
Acacia hamersleyensis	0.1	2		
Acacia maitlandii	0.1	2.2		
Acacia marramamba	0.1	2		
Acacia monticola	0.1	0.5		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.5		
Corymbia hamersleyana	3	6.5		
Cymbopogon ambiguus	0.1	0.5		
Dampiera candicans	0.1	0.6		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.1		
Eremophila latrobei	0.1	0.8	CPH070-01	
Eriachne mucronata	0.1	0.2		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	3		
Eulalia aurea	0.1	0.5		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.05		
Gompholobium oreophilum	0.1	0.3		
Goodenia triodiophila	0.1	0.2		
Gossypium robinsonii	1	1.7		
Grevillea wickhamii	0.1	1.5		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Ptilotus calostachyus	0.1	0.6		
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Santalum lanceolatum	0.1	1		
Scaevola browniana subsp. *browniana*	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Senna glaucifolia	0.1	0.7		
Senna glutinosa subsp. *glutinosa*	0.1	1		
Senna symonii	0.1	0.7		
Sida arenicola	0.1	1.7		
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Tephrosia densa	0.2	1		
Tephrosia oxalidea	0.1	0.1		
Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)	0.1	0.2		
Themeda triandra	0.5	0.7		
Triodia vanleeuwenii	0.1	0.2		
Triodia wiseana	12	0.4		
Triumfetta maconochieana	0.1	0.4		

Central Pilbara Hub **Site CPH-071**



Date	27/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	667916 mE;	7483573 mN
	118.635313 E	-22.746886 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Gorge	
Vegetation	*Themeda triandra* mid open tussock grassland with *Gossypium robinsonii, Acacia incurvaneura* tall isolated clumps of shrubs with *Ficus platypoda, Acacia pruinocarpa* low isolated trees.	
Notes	100m x 25m, bearing 300.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.4		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	3		
Acacia incurvaneura	0.1	2.5	CPH071-03	
Acacia maitlandii	0.1	1.5		
Acacia monticola	0.1	2.5		
Acacia pruinocarpa	0.5	6.5		
Achyranthes aspera	0.1	0.2		
Afrohybanthus aurantiacus	0.1	0.3		
Alternanthera nana	0.1	0.3		
Amaranthus undulatus	0.1	0.2		
Aristida burbidgeae	0.1	0.7		
Aristida lazaridis (P2)	0.1	0.2	EBBLOPP-06	
Arivela viscosa	0.1	0.2		
**Bidens bipinnata*	0.1	0.1		
Capparis lasiantha	0.1	0.1		
Cheilanthes brownii	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2	CPH071-05	
Crotalaria medicaginea var. *neglecta*	0.1	0.2		
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	0.1	0.5		
Digitaria ctenantha	0.1	0.3		
Dipteracanthus australasicus	0.1	0.2	CPH097-05	
Dodonaea lanceolata	0.1	2		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.3		
Eremophila latrobei subsp. *latrobei*	0.1	1.2		
Eriachne mucronata	0.1	0.5		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	1.7		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Euphorbia trigonosperma	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Ficus platypoda	0.1	8		
Glycine canescens	0.1	0.1		
Gomphrena cunninghamii	0.1	0.1		
Goodenia muelleriana	0.1	0.2		
Gossypium robinsonii	1	3		
Iseilema eremaeum	0.1	0.1	CPH071-01	
Jasminum didymum subsp. *lineare*	0.1	0.1		
Maireana planifolia	0.1	0.7	CPH071-02	
Melhania oblongifolia	0.1	0.8		
Pellaea reynoldsii	0.1	0.2	CPH071-04	
Plumbago zeylanica	3	0.6		
Polycarpaea longiflora	0.1	0.1		
Prostanthera albiflora	0.1	0.8		
Pterocaulon serrulatum	0.1	0.2		
Pterocaulon sphacelatum	0.1	0.6		
Pterocaulon sphaeranthoides	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Rhagodia eremaea	0.1	1.5		
Rhynchosia minima	0.1	0.1		
Rostellularia adscendens var. *latifolia* (P3)	0.1	0.2	EBBLOPP-02	
Santalum lanceolatum	0.1	1.5		
Senna ferraria	0.1	1		
Senna glutinosa subsp. *glutinosa*	0.1	0.8		
Solanum lasiophyllum	0.1	0.2		
Tephrosia densa	0.1	0.1		
Themeda triandra	6	0.5		
Tinospora smilacina	0.1	0.1		
Trachymene oleracea subsp. *oleracea*	0.1	0.1		
Triodia brizoides	0.1	0.3		
Triumfetta leptacantha	0.1	0.4	CPH071-06	
Triumfetta maconochieana	0.1	0		

Central Pilbara Hub **Site CPH-072**



Date	28/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	674118 mE;	7484345 mN
	118.695602 E	-22.739284 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Triodia melvillei* mid open hummock grassland with *Acacia aptaneura* tall sparse shrubland with *Corymbia hamersleyana* low isolated clumps of trees over *Seringia exastia* low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	0.1	2.3		
Acacia dictyophleba	0.1	1		
Acacia pachyacra	0.1	2		
Acacia tenuissima	0.1	0.2		
Aristida contorta	0.1	0.5		
Aristida inaequiglumis	0.1	0.3		
Chrysopogon fallax	0.1	4		
Corymbia hamersleyana	0.1	0.1		
Cucumis variabilis	0.1	0.1		
Duperreya commixta	0.1	0.3		
Enneapogon lindleyanus	0.1	0.3		
Eriachne mucronata	0.5	0.7		
Eucalyptus xerothermica	0.1	0.4		
Eulalia aurea	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.3		
Hibiscus burtonii	0.1	0.3		
Paraneurachne muelleri	0.1	0.5		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna pleurocarpa var. *angustifolia*	0.1	0.4		
Seringia exastia	0.1	0.2		
Solanum lasiophyllum	0.1	0.4		
Teucrium teucriiflorum	0.5	0.4		
Themeda triandra	20	0.5		
Triodia melvillei	0.1	0.1		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub Site CPH-074



Date	29/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	668363 mE;	7480378 mN
	118.640007 E	-22.775690 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	

Vegetation *Themeda triandra, Eulalia aurea* mid tussock grassland with *Eucalyptus gamophylla, Eucalyptus xerothermica* low open woodland over *Seringia exastia* low sparse shrubland with *Acacia elachantha, Acacia aptaneura* mid to tall isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.9	CPH095-01	
Acacia adsurgens	0.1	1.2	COH 076-04	
Acacia aptaneura	0.5	4		
Acacia dictyophleba	0.1	1.2		
Acacia elachantha	1	4		
Acacia steedmanii subsp. *borealis*	0.1	0.3		
Acacia tenuissima	0.1	1.8		
Alternanthera nana	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.4		
Aristida inaequiglumis	0.1	0.5	CPH 074-02	
Boerhavia coccinea	0.1	0.1		
Chrysopogon fallax	0.1	0.6		
Codonocarpus cotinifolius	0.1	2		
Duperreya commixta	0.5	0.1		
Eremophila longifolia	0.1	1		
Eucalyptus gamophylla	1	4		
Eucalyptus xerothermica	2	7		
Eulalia aurea	2	0.8		
Goodenia stellata	0.1	0.1		
Goodenia triodiophila	0.1	0.4		
Indigofera georgei	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	0.5		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	1.5		
Panicum decompositum	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		
Peripleura obovata	0.1	0.4		
Pterocaulon sphacelatum	0.1	1.5		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Santalum lanceolatum	0.1	2.5		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna artemisioides subsp. x *artemisioides*	0.1	1.8	CPH 074-01	
Senna notabilis	0.1	0.2		
Senna pleurocarpa var. *angustifolia*	0.1	0.6		
Seringia exastia	1	0.4		
Sida echinocarpa	0.1	0.4		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2	CPH 074-03	
Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	1	1		
Themeda triandra	60	0.8		
Triodia melvillei	0.1	0.7		
Triodia pungens	0.1	0.3		

Central Pilbara Hub **Site CPH-075**



Date	27/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	672147 mE;	7478771 mN
	118.677027 E	-22.789817 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Corymbia deserticola* subsp. *deserticola, Eucalyptus gamophylla* low open woodland over *Seringia exastia, Gompholobium oreophilum, Mirbelia viminalis* low sparse shrubland with *Themeda triandra, Amphipogon sericeus* low sparse tussock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	1.7	CPH024-03	
Acacia cowleana	0.1	1		
Acacia pachyacra	0.1	1		
Amphipogon sericeus	1	0.2	CPH075-01	
Aristida holathera var. *holathera*	0.1	0.2		
Aristida pruinosa	0.1	0.5	CPH075-02	
Corymbia deserticola subsp. *deserticola*	2	4.5		
Cymbopogon ambiguus	0.1	0.6		
Duperreya commixta	0.1	0.1		
Eriachne mucronata	0.1	0.2		
Eucalyptus gamophylla	1	3		
Eulalia aurea	0.1	0.5		
Gompholobium oreophilum	0.1	0.5		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.3		
Hakea chordophylla	0.1	1.5		
Hakea lorea subsp. *lorea*	0.1	5		
Indigofera monophylla	0.1	0.4		
Mirbelia viminalis	0.1	1		
Paraneurachne muelleri	0.1	0.3		
Ptilotus calostachyus	0.1	1.3		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.4		
Seringia exastia	1	0.5		
Sida arenicola	0.1	1.5	CPH075-06	
Solanum lasiophyllum	0.1	0.3		
Themeda triandra	1	0.9		
Triodia pungens	0.1	0.5		
Triodia vanleeuwenii	30	0.2		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-076**



Date	29/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	666183 mE;	7481347 mN
	118.618678 E	-22.767153 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* low hummock grassland with *Eucalyptus gamophylla* mid open mallee woodland over *Acacia ancistrocarpa* mid open shrubland with *Hakea lorea* subsp. *lorea, Acacia elachantha* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	1.2	CPH076-04	
Acacia ancistrocarpa	5	2.5	CPH024-03	
Acacia bivenosa	0.1	2.2		
Acacia dictyophleba	0.1	1		
Acacia elachantha	1	3		
Acacia kempeana	0.1	2.5	CPH076-02	
Acacia pachyacra	0.1	0.9		
Acacia pruinocarpa	0.1	3		
Acacia sibirica	0.5	2.5	CPH076-01	
Acacia tenuissima	0.1	1.6		
Alternanthera nana	0.1	0.1		
Anthobolus leptomerioides	0.1	0.8		
Aristida holathera var. *holathera*	0.1	0.2		
Bonamia erecta	0.1	0.3		
Capparis lasiantha	0.1	0.6		
Cassytha capillaris	0.1	0.1	COH076-03	
Corymbia deserticola subsp. *deserticola*	0.5	4		
Cymbopogon ambiguus	0.1	0.3		
Digitaria brownii	0.1	0.4		
Diplopeltis stuartii var. *stuartii*	0.1	0.1		
Duperreya commixta	0.1	0.1		
Eucalyptus gamophylla	7	6		
Eulalia aurea	0.1	1		
Gompholobium oreophilum	0.1	0.4		
Hakea lorea subsp. *lorea*	0.5	4		
Hibiscus burtonii	0.1	0.3		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Indigofera monophylla	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	1		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Paraneurachne muelleri	0.1	0.4		
Peripleura obovata	0.1	0.4		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus rotundifolius	0.1	0.7		
Santalum lanceolatum	0.1	1.5		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *helmsii* x *oligophylla*	0.1	0.8	CPH076-05	
Senna artemisioides subsp. *oligophylla*	0.1	1.3		
Senna pleurocarpa var. *angustifolia*	0.1	0.4		
Seringia exastia	0.1	0.4		
Triodia pungens	45	0.7		
Triodia wiseana	1	0.8		

Central Pilbara Hub **Site CPH-077**



Date	29/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	666318 mE;	7480369 mN
	118.620089 E	-22.775972 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Footslope	
Vegetation	*Triodia wiseana* mid hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia monticola* tall isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.5		
Acacia adsurgens	0.1	2	CPH024-07	
Acacia elachantha	0.1	1.7	CPH088-07	
Acacia hamersleyensis	0.1	1.2		
Acacia hilliana	0.1	0.5		
Acacia monticola	2	4		
Acacia sericophylla	0.1	1.8		
Acacia trudgeniana	0.1	1		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.2		
Capparis lasiantha	0.1	0.1		
Cassytha capillaris	0.1	0.1	CPH093-02	
Clerodendrum floribundum var. *angustifolium*	0.1	1.3		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.1		
Cymbopogon ambiguus	0.1	0.4		
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eremophila latrobei subsp. *latrobei*	0.1	1.2		
Eriachne mucronata	1	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	7	5.5		
Eulalia aurea	0.1	0.5		
Exocarpos sparteus	0.1	1.2		
Fimbristylis dichotoma	0.1	0.2	CPH088-01	
Goodenia triodiophila	0.1	0.3		
Gossypium robinsonii	0.1	0.8		
Hakea chordophylla	0.1	3		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3	CPH082-04	
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Ptilotus calostachyus	0.1	0.6		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus exaltatus	0.1	0.1		
Ptilotus rotundifolius	0.1	0.5		
Senna glaucifolia	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.5		
Senna glutinosa subsp. *pruinosa*	0.1	0.5		
Seringia exastia	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.3	CPH-077	
Triodia vanleeuwenii	0.1	0.2		
Triodia wiseana	50	0.5		

Central Pilbara Hub **Site CPH-078**



Date 29/03/2022
Described by Emily Eakin-Busher, Beth Loudon
Type Quadrat 50m x 50m
Location MGA Zone 50
667457 mE; 7481012 mN
118.631116 E -22.770053 S
Veg Condition Excellent
Soil Clay Loam
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Drainage Area/ Floodplain
Vegetation *Triodia melvillei, Themeda triandra, Triodia pungens* mid open hummock and tussock grassland with *Acacia aptaneura* isolated clumps of tall shrubs with *Corymbia deserticola* subsp. *deserticola* low isolated trees.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	1.5	CPH024-07	
Acacia aptaneura	4	4.7	CPH078-01	
Acacia dictyophleba	0.1	1.5		
Acacia elachantha	0.1	1.7	CPH088-07	
Acacia pachyacra	0.1	2		
Acacia pruinocarpa	0.1	2.5		
Acacia sibirica	0.1	3.5	CPH078-02	
Acacia steedmanii subsp. *borealis*	0.1	1.5		
Acacia tenuissima	0.1	2		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.3		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Chrysopogon fallax	0.1	0.6		
Codonocarpus cotinifolius	0.1	1		
Corymbia deserticola subsp. *deserticola*	1	4		
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	0.1	0.3		
Digitaria ammophila	0.1	0.3		
Digitaria brownii	0.1	0.2		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eremophila longifolia	0.1	0.6		
Eriachne mucronata	0.1	0.4		
Eucalyptus gamophylla	0.1	4		
Eucalyptus repullulans	0.1	5	CPH078-03	
Eulalia aurea	0.1	0.5		
Goodenia stellata	0.1	0.1	CPH066-05	
Hibiscus burtonii	0.1	0.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Hibiscus coatesii	0.1	1		
Hibiscus sturtii var. *campylochlamys*	0.1	0.1		
Indigofera georgei	0.1	0.8		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Maireana villosa	0.1	0.3	CPH066-02	
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	2.5	CPH087-02	
Panicum decompositum	0.1	0.3		
Paraneurachne muelleri	0.1	0.3		
Peripleura obovata	0.1	0.3		
Psydrax rigidula	0.1	0.8	CPH093-01	
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *helmsii*	0.1	0.5		
Senna notabilis	0.1	0.1		
Senna pleurocarpa var. *angustifolia*	0.1	0.2		
Seringia exastia	0.1	0.2		
Sida cardiophylla	0.1	0.3	CPH078-04	
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.2		
Solanum lasiophyllum	0.1	0.3		
Teucrium teucriiflorum	0.1	1		
Themeda triandra	10	0.5		
Triodia melvillei	10	0.7		
Triodia pungens	5	0.5		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-079**



Date 29/03/2022
Described by Emily Eakin-Busher, Beth Loudon
Type Quadrat 50m x 50m
Location MGA Zone 50
669852 mE; 7480897 mN
118.654451 E -22.770853 S
Veg Condition Excellent
Soil Sandy Loam
Rock Type BIF
Fire Age Old (6+ yr)
Habitat Sandy/ Stony Plain
Vegetation *Triodia pungens, Triodia vanleeuwenii* low hummock grassland with *Eucalyptus repullulans, Eucalyptus gamophylla* mid isolated clumps of mallee trees over *Seringia exastia* low isolated clumps of shrubs with *Acacia tenuissima, Acacia elachantha* mid to tall isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	1.2	CPH064-01	
Acacia aptaneura	0.1	3.5	CPH082-05	
Acacia bivenosa	0.1	2.3		
Acacia dictyophleba	0.1	3		
Acacia elachantha	0.5	3	CPH088-07	
Acacia kempeana	0.1	1.6	CPH064-02	
Acacia pruinocarpa	0.1	3.2		
Acacia rhodophloia	0.1	2.2	CPH079-01	
Acacia rhodophloia x *sibirica*	0.1	1.6	CPH096-01	
Acacia steedmanii subsp. *borealis*	0.1	1.7		
Acacia tenuissima	1	1.9		
Alternanthera nana	0.1	0.2		
Anthobolus leptomerioides	0.1	1		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.5	CPH079-03	
Corchorus sidoides subsp. *sidoides*	0.1	0.3	CPH079-02	
Corymbia deserticola subsp. *deserticola*	0.5	5		
Cymbopogon ambiguus	0.1	0.6		
Digitaria brownii	0.1	0.5		
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.3		
Eragrostis eriopoda	0.1	0.2		
Eucalyptus gamophylla	1	4.5		
Eucalyptus repullulans	3	4.5	CPH078-03	
Eucalyptus xerothermica	0.1	4		
Eulalia aurea	0.1	0.6		
Goodenia microptera	0.1	0.2		
Hibiscus sturtii var. *platychlamys*	0.1	0.3	CPH094-01	
Jasminum didymum subsp. *lineare*	0.1	1.8		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	1.5	CPH087-02	
Panicum decompositum	0.1	0.3		
Paraneurachne muelleri	0.1	0.6		
Peripleura obovata	0.1	0.6		
Psydrax rigidula	0.1	0.6	CPH093-01	
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *helmsii*	0.1	1		
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Seringia exastia	4	0.5		
Teucrium teucriiflorum	0.1	0.6		
Themeda triandra	0.1	1.1		
Triodia pungens	15	0.5		
Triodia vanleeuwenii	20	0.3		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-080**



Date	27/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	672364 mE;	7480195 mN
	118.678990 E	-22.776940 S
Veg Condition	Excellent	
Soil	Sandy Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens, Triodia melvillei* mid hummock grassland with *Acacia tenuissima, Acacia adsurgens* tall isolated clumps of shrubs with *Eucalyptus gamophylla, Eucalyptus trivalva* mid isolated clumps of mallee trees over *Seringia exastia* low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Indet	0.1	0.1		Sterile
Acacia adsurgens	0.5	2.6	CPH024-07	
Acacia aneura	0.1	1.5	CPH080-03	
Acacia aptaneura	0.1	1.9	CPH080-04	
Acacia dictyophleba	0.1	2		
Acacia elachantha	0.1	3	CPH088-07	
Acacia pruinocarpa	0.1	1.8		
Acacia sibirica	0.1	2.3		
Acacia steedmanii subsp. *borealis*	0.1	1.6		
Acacia tenuissima	3	2.2		
Amphipogon sericeus	0.1	0.4		
Aristida contorta	0.1	0.3		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.7		
Cymbopogon obtectus	0.1	0.8	CPH094-03	
Digitaria ammophila	0.1	0.3		
Digitaria brownii	0.1	0.5		
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eucalyptus gamophylla	3	5		
Eucalyptus trivalva	1	4.5	CPH080-02	
Eulalia aurea	0.1	0.6		
Goodenia stellata	0.1	0.2	CPH080-01	
Hibiscus coatesii	0.1	0.5		
Hibiscus sturtii var. *platychlamys*	0.1	0.5	CPH094-01	
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	1.6	CPH087-02	
Panicum decompositum	0.1	0.4		
Paraneurachne muelleri	0.1	0.4		
Pterocaulon serrulatum	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Pterocaulon sphacelatum	0.1	0.1		
Ptilotus calostachyus	0.1	0.6		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Seringia exastia	1	0.6		
Triodia melvillei	2	0.5		
Triodia pungens	53	0.5		
Triodia vanleeuwenii	0.1	0.5		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-081**



Date	29/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	674765 mE;	7480055 mN
	118.702379 E	-22.777949 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Acacia ancistrocarpa* tall isolated clumps of shrubs with *Eucalyptus gamophylla, Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	1.7	CPH081-01	
Acacia ancistrocarpa	3	2.5		
Acacia atkinsiana	0.1	2.5		
Acacia elachantha	0.1	1.5	CPH088-07	
Acacia sibirica	0.1	1.6		
Acacia tenuissima	0.1	1.7		
Amphipogon sericeus	0.1	0.4		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.4		
Cymbopogon obtectus	0.1	0.3	CPH094-03	
Duperreya commixta	0.1	0.1		
Eragrostis eriopoda	0.1	0.3		
Eriachne mucronata	0.1	0.3		
Eucalyptus gamophylla	0.5	5		
Goodenia stobbsiana	0.1	0.3		
Goodenia triodiophila	0.1	0.4		
Indigofera monophylla	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Ptilotus calostachyus	0.1	0.5		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Seringia exastia	0.1	0.6		
Sida arenicola	0.1	0.5		
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	0.1	0.2	CPH094-05	
Solanum lasiophyllum	0.1	1		
Triodia melvillei	0.1	0.5		
Triodia vanleeuwenii	35	0.4		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-082**



Date	28/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	675677 mE;	7481830 mN
	118.711068 E	-22.761833 S
Veg Condition	Excellent	
Soil	Sandy Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana, Triodia vanleeuwenii* mid sparse hummock grassland with *Acacia hilliana, Seringia exastia* low sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia maitlandii* tall isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.5		
Acacia aptaneura	0.1	4	CPH082-05	
Acacia atkinsiana	0.1	2.3		
Acacia elachantha	0.1	3	CPH088-07	
Acacia hilliana	6	0.7		
Acacia maitlandii	1	2.2		
Acacia monticola	0.1	2.5		
Acacia tenuissima	0.1	1.8		
Amphipogon sericeus	0.1	0.3		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.5		
Capparis lasiantha	0.1	1		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.5		
Cymbopogon ambiguus	0.1	0.5		
Digitaria ammophila	0.1	0.1		
Digitaria brownii	0.1	0.5		
Dodonaea coriacea	0.1	1		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	2	6		
Eulalia aurea	0.1	0.8		
Euphorbia australis var. *hispidula*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.2	CPH088-01	
Goodenia microptera	0.1	0.1		
Goodenia muelleriana	0.1	0.1		
Goodenia stobbsiana	0.1	0.3		
Goodenia triodiophila	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Hakea chordophylla	0.1	3		
Hibiscus burtonii	0.1	0.3		
Hibiscus coatesii	0.1	0.3		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3	CPH082-04	
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	1		
Paraneurachne muelleri	0.1	0.3		
Ptilotus astrolasius	0.1	0.3		
Ptilotus calostachyus	0.1	0.4		
Ptilotus clementii	0.1	0.3		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus rotundifolius	0.1	0.6		
Schizachyrium fragile	0.1	0.1		
Senna glutinosa subsp. *glutinosa*	0.1	1.3		
Senna glutinosa subsp. *pruinosa*	0.1	0.5		
Seringia exastia	2	0.6		
Sida echinocarpa	0.1	0.3		
Sida sp. Excedentifolia (J.L. Egan 1925)	0.1	0.5	CPH082-03	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.3	CPH082-01	
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1		
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.2	CPH082-02	
Solanum cleistogamum	0.1	0.3		
Solanum lasiophyllum	0.1	0.5		
Themeda triandra	0.1	0.6		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.2		Sterile
Triodia vanleeuwenii	4	0.4		
Triodia wiseana	4	1		

Central Pilbara Hub **Site CPH-084**



Date	25/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	674581 mE;	7478364 mN
	118.700778 E	-22.793241 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Basalt Outcrops	
Vegetation	*Triodia wiseana, Triodia vanleeuwenii* mid hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia tenuissima* mid isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ?aneura	0.1	0.3	CPH084-01	
Acacia adoxa var. *adoxa*	0.5	0.4		
Acacia bivenosa	0.1	1		
Acacia dictyophleba	0.1	4		
Acacia elachantha	0.1	0.7		
Acacia maitlandii	0.1	1.6		
Acacia pachyacra	0.1	1		
Acacia pruinocarpa	0.1	3		
Acacia tenuissima	0.5	1.3		
Amphipogon sericeus	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.2		
Corymbia hamersleyana	0.1	1.7		
Cymbopogon ambiguus	0.1	0.3		
Cynanchum pedunculatum	0.1	0.1		
Dampiera candicans	0.1	0.3		
Dodonaea coriacea	0.1	0.9		
Eriachne mucronata	0.5	0.2		
Eucalyptus leucophloia subsp. *leucophloia*	5	6.5		
Eulalia aurea	0.1	0.4		
Goodenia stobbsiana	0.1	0.1		
Goodenia triodiophila	0.1	0.3		
Grevillea wickhamii subsp. *aprica*	0.1	1.8	CPH012-03	
Hakea lorea subsp. *lorea*	0.1	1		
Hibiscus sturtii var. *campylochlamys*	0.1	0.2		
Indigofera monophylla	0.1	0.3		
Paraneurachne muelleri	0.1	0.4		
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Ptilotus rotundifolius	0.1	0.3		
Schizachyrium fragile	0.1	0.1		
Senna artemisioides subsp. *oligophylla*	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna ferraria	0.1	1		
Senna glutinosa subsp. *glutinosa*	0.1	1		
Senna glutinosa subsp. *pruinosa*	0.1	1		
Seringia exastia	0.1	0.3		
Sida arenicola	0.1	1		
Solanum phlomoides	0.1	0.2		
Tephrosia oxalidea	0.1	0.1		
Triodia vanleeuwenii	15	0.3		
Triodia wiseana	25	0.5		

Central Pilbara Hub **Site CPH-085**



Date	25/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	673633 mE;	7477591 mN
	118.691637 E	-22.800317 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana, Eriachne mucronata* low hummock and tussock grassland with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low open woodland over *Mirbelia viminalis, Acacia adoxa* var. *adoxa* low sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
?Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	0.1	CPH 085-01	
Acacia ?aptaneura	0.1	0.7	CPH 085-02	
Acacia adoxa var. *adoxa*	2	0.5		
Acacia bivenosa	0.1	1.6		
Acacia elachantha	0.1	1.6		
Acacia hilliana	0.1	0.1		
Acacia inaequilatera	0.1	2.5		
Acacia maitlandii	0.1	1.6		
Acacia monticola	1	1.8		
Acacia pachyacra	0.1	0.6		
Aristida inaequiglumis	0.1	0.3		
Capparis lasiantha	0.1	0.1		
Corymbia hamersleyana	2	7		
Cymbopogon ambiguus	0.1	0.6		
Dodonaea coriacea	0.1	1		
Enneapogon lindleyanus	0.1	0.4		
Enneapogon polyphyllus	0.1	0.2		
Eremophila longifolia	0.1	1.2		
Eriachne mucronata	2	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	2	6		
Eulalia aurea	0.1	0.2		
Goodenia triodiophila	0.1	0.2		
Gossypium australe	0.1	0.8		
Hakea chordophylla	0.1	1.6		
Hibiscus burtonii	0.1	0.2		
Indigofera monophylla	0.2	0.4		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	0.7		
Mirbelia viminalis	1	0.7		
Paraneurachne muelleri	0.1	0.3		
Psydrax latifolia	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Santalum lanceolatum	0.5	1.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.4	CPH 085-03	Typical form and one hybrid
Senna ferraria	0.1	1.8		
Senna glutinosa subsp. *glutinosa*	0.1	0.8		
Seringia exastia	0.1	0.3		
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.7		
Tephrosia densa	0.1	0.4		
Tephrosia oxalidea	0.1	0.05		
Themeda triandra	0.1	0.3		
Triodia wiseana	30	0.4		

Central Pilbara Hub **Site CPH-086**



Date	25/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	673971 mE;	7476639 mN
	118.695032 E	-22.808885 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Themeda triandra, Cymbopogon ambiguus, Triodia wiseana* mid tussock and hummock grassland with *Indigofera rugosa, Corchorus lasiocarpus* subsp. *parvus, Senna glutinosa* subsp. *glutinosa* low sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia, Acacia inaequilatera* low isolated trees.	
Notes	Basalt. 100m x 25m, bearing 345.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	1.6		
Acacia dictyophleba	0.1	0.4		
Acacia inaequilatera	0.1	2		
Acacia pachyacra	0.1	1.4		
Aristida contorta	0.1	0.3		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.8	CPH086-01	
Clerodendrum floribundum var. *angustifolium*	0.1	2.5		
Corchorus lasiocarpus subsp. *parvus*	1	1		
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	1	0.8		
Dodonaea viscosa subsp. ?*mucronata*	0.1	0.3	CPH086-02	
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.6		
Enneapogon polyphyllus	0.1	0.3		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	4.5		
Eulalia aurea	0.1	0.6		
Goodenia microptera	0.1	0.2		
Goodenia muelleriana	0.1	0.2		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.3		
Gossypium australe	0.1	0.5		
Hakea lorea subsp. *lorea*	0.1	1		
Hibiscus coatesii	0.1	0.3		
Hibiscus sturtii var. *platychlamys*	0.1	0.2		
Indigofera rugosa	2	0.6		
Jasminum didymum subsp. *lineare*	0.1	0.6		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Paraneurachne muelleri	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.8		
Ptilotus rotundifolius	0.1	0.4		
Rhynchosia minima	0.1	0.1		
Senna artemisioides subsp. *helmsii*	0.1	0.5		
Senna artemisioides subsp. *oligophylla*	0.1	0.8		
Senna ferraria	0.1	1.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.5		
Senna glutinosa subsp. *pruinosa*	0.1	0.7		
Sida echinocarpa	0.1	0.4		
Solanum cleistogamum	0.1	0.3		
Solanum lasiophyllum	0.1	0.5		
Solanum phlomoides	0.1	0.3		
Tephrosia densa	0.1	0.3		
Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)	0.1	0.2		Collected for herbarium
Themeda triandra	20	1.2		
Tribulus platypterus	0.1	0.3		
Trichodesma zeylanicum var. *zeylanicum*	0.1	1		Dead
Tricoryne sp. Hamersley Range (S. van Leeuwen 915)	0.1	0.3		
Triodia wiseana	20	0.4		

Central Pilbara Hub **Site CPH-087**



Date	25/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	673929 mE;	7477055 mN
	118.694577 E	-22.805126 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	Dolerite	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Basalt Outcrops	
Vegetation	*Triodia wiseana, Eriachne mucronata* low hummock and tussock grassland with *Seringia exastia, Acacia adoxa* var. *adoxa* low isolated clumps of shrubs with *Grevillea wickhamii* subsp. *aprica* tall isolated shrubs with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	
Notes	Previous burn/ some of quadrat in fire scar.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	1	0.3		
Acacia atkinsiana	0.1	0.5		
Acacia ayersiana	0.1	0.8		
Acacia dictyophleba	0.1	1.8		
Acacia elachantha	0.1	1		
Acacia maitlandii	0.1	1.6		
Acacia pachyacra	0.1	1.4		
Acacia pruinocarpa	0.1	4.2		On the quadrat line.
Acacia tenuissima	0.1	1		
Acacia trudgeniana	0.1	1		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Bonamia erecta	0.1	0.2		
Calytrix carinata	0.1	0.4		
Codonocarpus cotinifolius	0.1	0.5		Resprout
Corchorus lasiocarpus subsp. *parvus*	0.1	0.3		
Corymbia deserticola subsp. *deserticola*	0.1	2.5	CPH087-01	
Corymbia hamersleyana	0.1	2		Resprout
Cymbopogon ambiguus	0.1	0.4		
Dampiera candicans	0.5	0.4		
Dodonaea coriacea	0.1	0.4		
Eriachne mucronata	1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	7		
Eulalia aurea	0.1	0.2		
Fimbristylis dichotoma	0.1	0.1	CPH088-01	Sterile
Goodenia stobbsiana	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Goodenia triodiophila	0.1	0.3		
Gossypium australe	0.1	0.7		
Gossypium robinsonii	0.1	1.5		
Grevillea wickhamii subsp. *aprica*	0.1	2	CPH012-03	
Hakea chordophylla	0.1	2		
Hakea lorea subsp. *lorea*	0.1	1		
Hibiscus coatesii	0.1	0.3		
Hibiscus sturtii var. *campylochlamys*	0.1	0.2		
Indigofera monophylla	0.1	0.2		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	1.5	CPH087-02	
Mirbelia viminalis	0.5	0.2	CPH087-03	
Paraneurachne muelleri	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus rotundifolius	0.1	0.3		
Schizachyrium fragile	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	0.3		
Senna ferraria	0.1	1.2		
Senna glutinosa subsp. *glutinosa*	0.1	1		
Senna glutinosa subsp. *pruinosa*	0.1	0.9		
Seringia exastia	3	0.4		
Sida sp. Excedentifolia (J.L. Egan 1925)	0.1	0.2		
Solanum phlomoides	0.1	0.3		
Themeda triandra	0.1	0.3		
Triodia melvillei	0.1	0.4		
Triodia wiseana	50	0.4		

Central Pilbara Hub **Site CPH-088**



Date	25/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	674395 mE;	7477483 mN
	118.699063 E	-22.801215 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	Shale	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* mid hummock grassland with *Acacia inaequilatera* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon lepidum	0.1	0.25	CPH088-03	
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	0.1		
Acacia dictyophleba	0.1	1.5		
Acacia elachantha	0.1	0.9	CPH088-07	
Acacia inaequilatera	1	3		
Acacia maitlandii	1	1.3		
Acacia tenuissima	0.1	1.2		
Amaranthus cuspidifolius	0.1	0.1	CPH088-04	
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.4		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.3		
Crotalaria medicaginea var. *neglecta*	0.1	0.1		
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	0.1	0.7		
Cynanchum pedunculatum	0.1	0.1		
Digitaria ctenantha	0.1	0.2		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eremophila longifolia	0.1	1.1		
Eriachne mucronata	0.1	0.2		
Eulalia aurea	0.1	0.6		
Evolvulus alsinoides	0.1	0.1		
Fimbristylis dichotoma	0.1	0.15	CPH088-01	
Gossypium australe	0.5	1.1		
Hakea lorea subsp. *lorea*	0.1	2.5		
Hibiscus coatesii	0.1	0.9		
Indigofera monophylla	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Jasminum didymum subsp. *lineare*	0.1	1		
Polycarpaea longiflora	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Rhynchosia minima	0.1	0.1		
Rostellularia adscendens var. *latifolia* (P3)	0.1	0.2	CPH088-05	
Schizachyrium fragile	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	0.8		
Senna glutinosa subsp. *glutinosa*	0.1	0.7		
Senna glutinosa subsp. *pruinosa*	0.1	1.5		
Sida echinocarpa	0.1	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1.5		
Solanum sp. Indet	0.1	0.7	CPH088-02	
Swainsona sp. Indet	0.1	0.1	CPH088-06	
Tephrosia densa	0.1	0.3		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	0.1	0.3		
Themeda triandra	0.1	0.6		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.1		
Triodia brizoides	0.1	0.3		
Triodia wiseana	40	0.5		
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)	0.1	0.2		

Central Pilbara Hub **Site CPH-089**



Date	28/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	675035 mE;	7482651 mN
	118.704721 E	-22.754485 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii, Triodia wiseana* mid hummock grassland with *Acacia hamersleyensis* tall sparse shrubland over *Seringia exastia, Acacia hilliana* low sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low open woodland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia aptaneura	0.1	3		
Acacia hamersleyensis	6	3		
Acacia hilliana	1	0.4		
Acacia maitlandii	0.1	0.3		
Acacia monticola	0.1	2.5		
Acacia tenuissima	0.1	1.8		
Amphipogon sericeus	0.1	0.3		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.3	CPH89-01	
Corchorus lasiocarpus subsp. *parvus*	0.1	0.4		
Corymbia hamersleyana	0.1	8		
Cymbopogon ambiguus	0.1	0.5		
Digitaria brownii	0.1	0.5		
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.2		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	3	8		
Eulalia aurea	0.1	0.8		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1		
Goodenia microptera	0.1	0.3		
Goodenia stobbsiana	0.1	0.3		
Goodenia triodiophila	0.1	0.2		
Hakea chordophylla	0.1	2.5		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Indigofera monophylla	0.1	0.4		
Paraneurachne muelleri	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus calostachyus	0.1	0.5		
Ptilotus rotundifolius	0.1	0.6		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	0.6	CPH89-02	Typical form and one hybrid
Senna glutinosa subsp. *glutinosa*	0.1	0.4		
Senna glutinosa subsp. *pruinosa*	0.1	0.8		
Senna symonii	0.1	0.6	CPH89-03	
Seringia exastia	2	0.5		
Sida arenicola	0.1	0.4		
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.3		
Themeda triandra	0.1	0.5		
Triodia melvillei	0.1	1		
Triodia vanleeuwenii	30	0.5		
Triodia wiseana	1	0.6		

Central Pilbara Hub **Site CPH-090**



Date	28/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	674885 mE;	7486085 mN
	118.702880 E	-22.723496 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* mid open hummock grassland with *Eriachne mucronata* low isolated clumps of tussock grasses with *Corymbia hamersleyana, Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia hamersleyensis* tall isolated shrubs over *Seringia exastia* low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.6		
Acacia hamersleyensis	1	2.5		
Acacia maitlandii	0.1	1.9		
Afrohybanthus aurantiacus	0.1	0.3		
Amphipogon sericeus	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.5		
Cassytha capillaris	0.1	0.1	CPH093-02	
Corchorus lasiocarpus subsp. *parvus*	0.1	0.4		
Corymbia hamersleyana	1	3.5		
Cymbopogon ambiguus	0.1	0.5		
Dampiera candicans	0.1	0.2		
Duperreya commixta	0.1	0.1		
Eremophila latrobei	0.1	0.7		
Eriachne mucronata	1	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	4		
Eulalia aurea	0.1	0.3		
Fimbristylis dichotoma	0.1	0.1	CPH088-01	
Gompholobium oreophilum	0.1	0.6		
Goodenia stobbsiana	0.1	0.4		
Goodenia triodiophila	0.1	0.2		
Indigofera monophylla	0.1	0.6		
Jasminum didymum subsp. *lineare*	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Polygala glaucifolia	0.1	0.1		
Ptilotus calostachyus	0.1	0.3		
Scaevola browniana subsp. *browniana*	0.1	0.3		
Schizachyrium fragile	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Seringia exastia	1	0.4		
Tricoryne sp. Hamersley Range (S. van Leeuwen 915)	0.1	0.3		
Triodia wiseana	28	0.5		

Central Pilbara Hub **Site CPH-091**



Date	28/03/2022	
Described by	Ryonen Butcher, Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	675868 mE;	7485979 mN
	118.712453 E	-22.724349 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	None Discernible	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Acacia aptaneura* tall sparse shrubland over *Chrysopogon fallax* mid isolated clumps of tussock grasses with *Maireana villosa, Ptilotus obovatus* var. *obovatus* low isolated clumps of shrubs with *Eucalyptus xerothermica, Corymbia deserticola* subsp. *deserticola* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.1		
Acacia aptaneura	9	4.8	CPH091-07	
Alternanthera nana	0.1	0.2		
Amaranthus cuspidifolius	0.1	0.1	CPH091-05	
Aristida contorta	0.1	0.2		
Aristida obscura	0.1	0.2		
Arivela viscosa	0.1	0.2		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.1		
Boerhavia repleta	0.1	0.1		
Bothriochloa ewartiana	1	0.8	CPH091-04	
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
**Chloris virgata*	0.1	0.2	CPH091-02	
Chrysopogon fallax	2	0.5		
Commelina ensifolia	0.1	0.3		
Convolvulus remotus	0.1	0.1		
Corchorus tridens	0.1	0.1		
Corymbia deserticola subsp. *deserticola*	0.1	4		
Cucumis variabilis	0.1	0.1		
Dactyloctenium radulans	0.1	0.1		
Digitaria ctenantha	0.1	0.2		
Duperreya commixta	0.1	0.1		
Dysphania melanocarpa forma *melanocarpa*	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis cumingii	0.1	0.1		
Eremophila lanceolata	0.1	0.3		
Eriachne mucronata	0.1	0.3	CPH091-06	
Eucalyptus xerothermica	0.1	5.8		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Eulalia aurea	0.1	0.5		
Euphorbia biconvexa	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Gomphrena canescens	0.1	0.2		
Goodenia stellata	0.1	0.2	CPH066-05	
Hibiscus burtonii	0.1	0.3		
Ipomoea polymorpha	0.1	0.1		
Iseilema eremaeum	0.1	0.1	CPH066-03	
Maireana villosa	2	0.4	CPH066-02	
Nicotiana sp. Indet	0.1	0.1		Sterile
Paraneurachne muelleri	0.1	0.3		
Paspalidium clementii	0.1	0.2		
Paspalidium rarum	0.1	0.1		
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.2		
Ptilotus helipteroides	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.5	0.4		
Salsola australis	0.1	0.1		
Senna notabilis	0.1	0.1		
Setaria surgens	0.1	0.2		
Sida sp. Indet	0.1	0.1		Sterile
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.1		
Spermacoce brachystema	0.1	0.1	CPH091-03	
Sporobolus australasicus	0.1	0.1		
Teucrium teucriiflorum	0.1	0.3		
Themeda triandra	0.1	0.6		
Tragus australianus	0.1	0.1		
Tribulopis angustifolia	0.1	0.2		
Tribulus astrocarpus	0.1	0.1		
**Tribulus terrestris*	0.1	0.1	CPH091-01	

Central Pilbara Hub **Site CPH-092**



Date	28/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	675632 mE;	7484931 mN
	118.710277 E	-22.733838 S
Veg Condition	Very Good	
Soil	Silty Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	
Vegetation	*Themeda triandra, Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3), *Chrysopogon fallax* mid tussock grassland with *Acacia aptaneura* low open woodland over *Ptilotus obovatus* var. *obovatus* low open shrubland over *Boerhavia coccinea* low open herbland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.4	CPH 092-03	
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	10	10		
Aristida contorta	0.1	0.1		
Aristida obscura	0.1	0.3		
Arivela viscosa	0.1	0.2		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	1	0.1		
Chrysopogon fallax	5	0.6		
Commelina ensifolia	0.1	0.3		
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum subsp. *humilius*	0.1	0.1		
Digitaria brownii	0.1	0.2		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eremophila latrobei	0.1	0.5		Resprouting leaves; soft
Eucalyptus xerothermica	0.5	7		
Eulalia aurea	0.1	0.4		
Euphorbia drummondii	0.1	0.05	COH 092-07	
Euphorbia sp. Indet	0.1	0.1		Sterile
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Goodenia stellata	0.1	0.1		
Hibiscus burtonii	0.1	0.3		
Iseilema eremaeum	0.1	0.1	COH092-02	
Maireana villosa	0.1	0.2		
Paspalidium constrictum	0.1	0.05	CPH 092-04	
Paspalidium rarum	0.1	0.1	CPH92-06	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Ptilotus helipteroides	0.1	0.1		Juvenile
Ptilotus obovatus var. *obovatus*	5	0.7		
Senna notabilis	0.1	0.1		Seedling
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.1		Sterile
Spermacoce brachystema	0.1	0.1	CPH 092-01	
Sporobolus australasicus	0.1	0.1		
Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)	0.1	0.7		
Themeda triandra	10	0.6		
Tribulopis angustifolia	0.1	0.05	CPH 092-05	

Central Pilbara Hub **Site CPH-093**



Date	26/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	665534 mE;	7476762 mN
	118.612844 E	-22.808626 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* mid closed hummock grassland with *Acacia hilliana, Acacia adoxa* var. *adoxa* low sparse shrubland with *Grevillea wickhamii* subsp. *hispidula* tall isolated shrubs with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	
Notes	Eastern half of hill burnt 2-3yrs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	1	0.6		
Acacia hilliana	4	0.8		
Afrohybanthus aurantiacus	0.1	0.5		
Amphipogon sericeus	0.1	0.3		
Cassytha capillaris	0.1	0.1	CPH093-02	
Corymbia hamersleyana	0.1	1.3		
Eremophila latrobei	0.1	1.3		
Eriachne mucronata	0.1	0.6		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	6		
Fimbristylis dichotoma	0.1	0.1	CPH088-01	
Goodenia stobbsiana	0.1	0.1		
Goodenia triodiophila	0.1	0.3		
Grevillea wickhamii subsp. *hispidula*	0.5	3		
Hakea chordophylla	0.1	2.5		
Indigofera monophylla	0.1	0.6		
Petalostylis labicheoides	0.1	3		
Psydrax rigidula	0.1	0.5	CPH093-01	
Scaevola browniana subsp. *browniana*	0.1	0.3		
Senna ferraria	0.1	1.3		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Senna glutinosa subsp. *pruinosa*	0.1	0.5		
Senna symonii	0.1	0.6		
Solanum phlomoides	0.1	0.5		
Triodia vanleeuwenii	0.1	0.3		
Triodia wiseana	72	0.6		

Central Pilbara Hub **Site CPH-094**



Date	26/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	666526 mE;	7477457 mN
	118.622429 E	-22.802245 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	

Vegetation *Triodia vanleeuwenii, Triodia pungens* mid hummock grassland with *Eucalyptus gamophylla, Eucalyptus leucophloia* subsp. *leucophloia* low isolated clumps of trees with *Acacia steedmanii* subsp. *borealis* tall isolated clumps of shrubs with *Senna artemisioides* subsp. *helmsii*, *Senna artemisioides* subsp. *oligophylla* mid isolated shrubs.

Notes Braided landscape; low rises of *Eucalyptus gamophylla, Eucalyptus leucophloia* subsp. *leucophloia* over *Triodia vanleeuwenii, Triodia pungens* intersected by *Corymbia hamersleyana, Acacia elachantha, Themeda triandra* flowlines.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	0.6		
Acacia ?aneura	0.1	3	CPH084-01	
Acacia adsurgens	0.1	4	CPH024-07	
Acacia bivenosa	0.1	3		
Acacia dictyophleba	0.1	3		
Acacia elachantha	0.1	2	CPH088-07	
Acacia sericophylla	0.1	4		
Acacia steedmanii subsp. *borealis*	0.5	2.5		
Acacia tenuissima	0.1	2		
Amphipogon sericeus	0.1	0.4		
Anthobolus leptomerioides	0.1	1.5		
Aristida contorta	0.1	0.3		
Aristida holathera var. *holathera*	0.1	0.4		
Aristida inaequiglumis	0.1	0.6		
Bonamia erecta	0.1	0.6		
Capparis lasiantha	0.1	1.4		
Cassytha capillaris	0.1	0.1	CPH093-02	
Corchorus lasiocarpus subsp. *parvus*	0.1	0.4		
Corymbia hamersleyana	0.5	5		
Cymbopogon ambiguus	0.1	0.5		
Cymbopogon obtectus	0.1	0.8	CPH094-03	
Diplopeltis stuartii var. *stuartii*	0.1	0.2	EBBLOPP-05	
Duperreya commixta	0.1	0.1		
Eragrostis eriopoda	0.1	0.4	EBBLOPP-04	
Eremophila longifolia	0.1	0.7		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Eucalyptus gamophylla	3	5		
Eucalyptus leucophloia subsp. *leucophloia*	2	6		
Eulalia aurea	0.1	0.7		
Euphorbia tannensis subsp. *eremophila*	0.1	0.3		
Gompholobium oreophilum	0.1	0.9		
Goodenia microptera	0.1	0.3		
Goodenia muelleriana	0.1	0.3		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.3		
Grevillea wickhamii	0.1	4		Sterile
Hibiscus burtonii	0.1	0.3		
Hibiscus coatesii	0.1	0.7		
Hibiscus sturtii var. *platychlamys*	0.1	0.5	CPH094-01	
Indigofera monophylla	0.1	0.5		
Isotropis atropurpurea	0.1	0.8		
Jasminum didymum subsp. *lineare*	0.1	0.6		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	0.4	CPH087-02	
Panicum decompositum	0.1	0.2		
Paraneurachne muelleri	0.1	0.4		
Peripleura obovata	0.1	0.7		
Pterocaulon serrulatum	0.1	0.2		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus calostachyus	0.1	1.2		
Ptilotus exaltatus	0.1	0.1		
Ptilotus rotundifolius	0.1	0.6		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	1.2		
Senna artemisioides subsp. *oligophylla*	0.1	1		
Senna glutinosa subsp. *glutinosa*	0.1	1.6		
Senna pleurocarpa var. *angustifolia*	0.1	0.8		
Seringia exastia	0.1	0.7		
Sida cardiophylla	0.1	1.2	CPH094-02	
Sida echinocarpa	0.1	0.4		
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	0.1	0.4	CPH094-05	
Solanum sp. Indet	0.1	0.2	CPH093-04	
Themeda triandra	0.1	0.7		
Triodia pungens	5	0.6		
Triodia vanleeuwenii	35	0.3		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-095**



Date	26/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	665773 mE;	7476119 mN
	118.615234 E	-22.814404 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia vanleeuwenii, Triodia pungens* low hummock grassland with *Eucalyptus trivalva, Eucalyptus gamophylla* mid to low open mallee woodland over *Acacia inaequilatera* mid sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.5	CPH095-01	
Acacia bivenosa	0.1	1.5		
Acacia cowleana	0.5	1.8	CPH095-05	
Acacia dictyophleba	0.1	0.4		
Acacia inaequilatera	1	2		
Acacia pachyacra	0.1	1.5		
Acacia steedmanii subsp. *borealis*	0.1	2		
Acacia synchronicia	0.1	1.5	CPH095-06	
Aristida holathera var. *holathera*	0.1	0.3		
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.3		
Eucalyptus gamophylla	10	4		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	6		
Eucalyptus trivalva	3	5	CPH095-04	
Eulalia aurea	0.1	0.6		
Euphorbia tannensis subsp. *eremophila*	0.1	0.5		
Gompholobium oreophilum	0.1	1.2		
Halgania gustafsenii var. Mid West (G. Perry 370)	0.1	0.4	RBOpp-260322-01	
Indigofera monophylla	0.1	0.4		
Isotropis atropurpurea	0.1	0.5		
Jasminum didymum subsp. *lineare*	0.1	0.5		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	1.3	CPH087-02	
Paraneurachne muelleri	0.1	0.3		
Ptilotus rotundifolius	0.1	1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Senna artemisioides subsp. x *artemisioides*	0.1	1	CPH095-02	
Senna glutinosa subsp. *pruinosa*	0.1	1.3		
Senna glutinosa subsp. x *luerssenii*	0.1	0.6		
Themeda triandra	0.1	0.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Triodia pungens	20	0.6		
Triodia vanleeuwenii	20	0.2		

Central Pilbara Hub **Site CPH-096**



Date	29/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	668101 mE;	7477885 mN
	118.637727 E	-22.798227 S
Veg Condition	Excellent	
Soil	Sandy Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* mid hummock grassland with *Eucalyptus gamophylla* mid isolated clumps of mallee trees with *Acacia elachantha* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	1.5		
Acacia aptaneura	0.1	3.5	CPH082-05	
Acacia bivenosa	0.1	2		
Acacia dictyophleba	0.1	2.2		
Acacia elachantha	0.5	2.5	CPH088-07	
Acacia rhodophloia x *sibirica*	0.1	2	CPH096-01	
Acacia steedmanii subsp. *borealis*	0.1	1.6		
Acacia tenuissima	0.1	2.1		
Anthobolus leptomerioides	0.1	0.7		
Aristida holathera var. *holathera*	0.1	0.4		
Aristida inaequiglumis	0.1	0.3		
Corymbia deserticola subsp. *deserticola*	0.1	4		
Cymbopogon ambiguus	0.1	0.6		
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.3		
Eragrostis eriopoda	0.1	0.3		
Eucalyptus gamophylla	4	4.5		
Eulalia aurea	0.1	0.5		
Goodenia microptera	0.1	0.2		
Hakea chordophylla	0.1	3		
Indigofera georgei	0.1	0.7		
Jasminum didymum subsp. *lineare*	0.1	0.8		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	1.8	CPH087-02	
Peripleura obovata	0.1	0.5		
Ptilotus calostachyus	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus rotundifolius	0.1	1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.9		
Senna artemisioides subsp. *oligophylla*	0.1	0.5		
Senna pleurocarpa var. *angustifolia*	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Seringia exastia	0.1	0.4		
Teucrium teucriiflorum	0.1	1		
Triodia melvillei	0.1	0.5		
Triodia pungens	60	0.7		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-097**



Date	26/03/2022	
Described by	Emily Eakin-Busher, Beth Loudon	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	664676 mE;	7476908 mN
	118.604472 E	-22.807386 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Gorge	
Vegetation	*Triodia pungens, Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3), *Themeda triandra* mid hummock and tussock with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low isolated trees with *Acacia hamersleyensis, Gossypium robinsonii* tall isolated clumps of shrubs.	
Notes	100m x 25m, bearing 355.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	1.8		
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia hamersleyensis	0.5	1.3		
Acacia maitlandii	0.1	2		
Acacia pruinocarpa	0.1	2		
Achyranthes aspera	0.1	0.9		
Afrohybanthus aurantiacus	0.1	0.6		
Alternanthera nana	0.1	0.2		
Aristida burbidgeae	0.1	0.5		
Aristida holathera var. *holathera*	0.1	0.3		
Astrotricha hamptonii	0.1	0.8		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.1		
Capparis lasiantha	0.1	0.1		
Capparis mitchellii	0.1	0.5	CPH097-02	
Cheilanthes brownii	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Clerodendrum floribundum var. *angustifolium*	0.1	0.2		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.9		
Corymbia ferriticola	0.2	5	CPH097-03	
Corymbia hamersleyana	0.5	5		
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	0.1	1.2		
Digitaria brownii	0.1	0.5		
Dipteracanthus australasicus	0.1	0.1	CPH097-05	
Dodonaea lanceolata var. *lanceolata*	0.1	2.5		
Dodonaea pachyneura	0.1	1.2		
Duperreya commixta	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Enneapogon polyphyllus	0.1	0.3		
Eremophila ?jucunda	0.1	0.6	CPH004-01	
Eriachne mucronata	0.1	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	2	5		
Eulalia aurea	0.1	0.8		
Euphorbia trigonosperma	0.1	0.2		
Ficus brachypoda	0.1	0.5	CPH012-05	
Gastrolobium grandiflorum	0.1	1.2	CPH097-01	
Gossypium robinsonii	0.5	3		
Hibiscus coatesii	0.1	1.1		
Hibiscus sturtii var. *campylochlamys*	0.1	0.2		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0.5		
Panicum decompositum	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	0.1	3.5		
Prostanthera albiflora	0.1	0.6		
Psydrax latifolia	0.1	0.4		
Pterocaulon serrulatum	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Rhagodia eremaea	0.1	0.5		
Rostellularia adscendens var. *latifolia* (P3)	0.1	0.3	EBBLOPP-02	
Santalum lanceolatum	0.1	1		
Schizachyrium fragile	0.1	0.1		
Senna glutinosa subsp. *glutinosa*	0.1	1.2		
Sida sp. Articulation below (A.A. Mitchell PRP 1605)	0.1	1.9		
Solanum ferocissimum	0.1	0.2		
Tephrosia densa	0.1	0.8		
Themeda triandra	25	0.6		
Tinospora smilacina	0.1	0.1		
Triodia pungens	20	0.5		
Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	2	0.4		More plants outside site
Vincetoxicum flexuosum	0.1	0.1	CPH097-04	
Vincetoxicum lineare	0.1	0.1		
Waltheria virgata	0.1	0.8		

Central Pilbara Hub **Site CPH-098**



Date	26/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	664744 mE;	7476598 mN
	118.605163 E	-22.810184 S
Veg Condition	Very Good	
Soil	Silty Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Medium Drainage Line	
Vegetation	*Themeda triandra, Cymbopogon ambiguus, Enneapogon lindleyanus* mid tussock grassland with *Acacia pyrifolia* var. *pyrifolia, Petalostylis labicheoides* tall sparse shrubland with *Corymbia hamersleyana* mid isolated trees.	
Notes	100m x 25m, bearing 300. Two patches of weeds.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	1.4		
Acacia pyrifolia var. *pyrifolia*	5	2.2		
Afrohybanthus aurantiacus	0.1	0.2		
Alternanthera nana	0.1	0.2		
Amaranthus cuspidifolius	0.1	0.1	CPH098-02	
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.4		
Aristida inaequiglumis	0.1	0.7		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.05		
Chrysocephalum gilesii	0.1	0.1		
Corymbia hamersleyana	0.1	4		
Cucumis variabilis	0.1	0.1		
Cymbopogon ambiguus	15	1.5		
Cyperus cunninghamii	0.1	0.3	CPH098-05	
Digitaria ctenantha	0.1	0.4		
Dodonaea viscosa subsp. *mucronata*	0.1	1.5		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	1	0.3		
Enneapogon polyphyllus	0.1	0.3		
Eriachne mucronata	0.1	0.3		
Eulalia aurea	0.1	0.7		
Euphorbia trigonosperma	0.1	0.2		
Euploca tenuifolia	0.1	0.1	CPH098-04	
Gomphrena canescens	0.1	0.3		
Gomphrena cunninghamii	0.1	0.05		
Goodenia microptera	0.1	0.1		
Gossypium robinsonii	0.1	1.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Jasminum didymum subsp. *lineare*	0.1	0.1		
**Melinis repens*	0.1	0.8		
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	1	3		
Polycarpaea longiflora	0.1	0.2		Dead
Ptilotus calostachyus	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Rostellularia adscendens	0.1	0.1	CPH098-03	
Santalum lanceolatum	0.1	1.8		
Seringia exastia	0.1	0.5		
Seringia nephrosperma	0.1	0.1	CPH098-01	
Setaria surgens	0.1	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.8		
Solanum lasiophyllum	0.1	0.3		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	0.1	0.4		
Themeda triandra	15	0.8		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.7		Dead
Triodia pungens	0.1	0.5		

Central Pilbara Hub **Site CPH-099**



Date	26/03/2022	
Described by	Ryonen Butcher, Kaylin Geelhoed	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	664510 mE;	7477369 mN
	118.602807 E	-22.803238 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Breakaway	
Vegetation	*Triodia brizoides, Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3) low open hummock grassland with *Corymbia hamersleyana, Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Senna glutinosa* subsp. *glutinosa, Acacia adoxa* var. *adoxa* low isolated shrubs.	
Notes	100m x 25m, bearing 255.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia aptaneura	0.1	1.8		
Acacia maitlandii	0.1	2		
Acacia monticola	0.1	2.1		
Acacia pachyacra	0.1	2.2		
Acacia pruinocarpa	0.1	1.8		
Afrohybanthus aurantiacus	0.1	0.1		
Astrotricha hamptonii	0.1	1.2		
Corymbia hamersleyana	0.1	6		
Cymbopogon ambiguus	0.1	0.4		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.3		
Eremophila magnifica subsp. *magnifica* (P4)	0.1	0.5		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	2	5		
Eulalia aurea	0.1	0.5		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Ficus brachypoda	0.1	3	CPH099-03	
Goodenia stobbsiana	0.1	0.1		
Goodenia triodiophila	0.1	0.3		
Hakea chordophylla	0.1	2.5		
Hakea lorea subsp. *lorea*	0.1	1.5		
Indigofera monophylla	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	0.6		
Paraneurachne muelleri	0.1	0.3		
Polycarpaea longiflora	0.1	0.3		
Prostanthera albiflora	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna glutinosa subsp. *glutinosa*	0.1	1.5		
Seringia exastia	0.1	0.4		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Tephrosia densa	0.1	0.1		
Themeda triandra	0.1	0.4		
Trichodesma zeylanicum var. *zeylanicum*	0.1	1.2		
Triodia brizoides	25	0.4		
Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	5	0.4		
Triumfetta leptacantha	0.1	0.3	CPH099-02	
Triumfetta maconochieana	0.1	0.3		
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia aptaneura	0.1	1.8		
Acacia maitlandii	0.1	2		
Acacia monticola	0.1	2.1		
Acacia pachyacra	0.1	2.2		

Central Pilbara Hub **Site CPH-100**



Date	29/03/2022	
Described by	Ryonen Butcher, Samuel Coultas	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	668050 mE;	7476172 mN
	118.637414 E	-22.813699 S
Veg Condition	Very Good	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Medium Drainage Line	
Vegetation	*Cymbopogon ambiguus, Themeda triandra, Eulalia aurea* mid tussock grassland with *Corymbia hamersleyana, Eucalyptus xerothermica* low open woodland over *Gossypium robinsonii, Androcalva luteiflora, Grevillea wickhamii* tall sparse shrubland over *Tephrosia rosea* var. Fortescue creeks (M.I.H. Brooker 2186) low sparse shrubland.	
Notes	100m x 25m, bearing 237.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	1.8		
Acacia bivenosa	0.1	1.2		
Acacia maitlandii	0.1	1		
Acacia monticola	0.1	4		
Acacia pruinocarpa	0.1	2.5		
Acacia pyrifolia var. *pyrifolia*	0.1	1.8		
Afrohybanthus aurantiacus	0.1	0.3		
Alternanthera nana	0.1	0.2		
Androcalva luteiflora	1	1.5		
Aristida contorta	0.1	0.3		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.8		
Boerhavia coccinea	0.1	0.1		
Capparis lasiantha	0.1	0.3		
**Cenchrus ciliaris*	0.1	0.5		
**Cenchrus setiger*	2	0.4		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.4		
Corymbia hamersleyana	2	7.5		
Cucumis variabilis	0.1	0		
Cymbopogon ambiguus	10	1.2		
Digitaria brownii	0.1	0.3		
Dodonaea viscosa subsp. *mucronata*	0.1	0.6		
Duperreya commixta	0.1	0		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.3		
Eremophila longifolia	0.1	2		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	4.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Eucalyptus xerothermica	1	8		
Eulalia aurea	2	0.8		
Euphorbia australis var. *subtomentosa*	0.1	0.1	CPH100-02	
Euploca tenuifolia	0.1	0.3		
Evolvulus alsinoides var. *decumbens*	0.1	0.2		
Glycine canescens	0.1	0		
Gossypium robinsonii	2	3.2		
Gossypium sturtianum var. *sturtianum*	0.1	1		
Grevillea wickhamii	1	2.4		
Hibiscus burtonii	0.1	0.3		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	1		
Nellica maderaspatensis	0.1	0.3		
Paraneurachne muelleri	0.1	0.4		
Peripleura obovata	0.1	0.5		
Petalostylis labicheoides	0.1	2.5		
Polycarpaea longiflora	0.1	0.3		
Pterocaulon sphacelatum	0.1	0.6		
Ptilotus astrolasius	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus rotundifolius	0.1	0.8		
Rhynchosia minima	0.1	0.1		
Rostellularia adscendens var. *latifolia* (P3)	0.1	0.3	CPH100-01	
Santalum lanceolatum	0.1	1.2		
Scaevola amblyanthera var. *centralis*	0.1	0.3		
Scaevola spinescens	0.1	0.4		
Senna artemisioides subsp. *helmsii*	0.1	0.6		
Senna artemisioides subsp. *oligophylla*	0.1	0.8	CPH68-03	
Sida arenicola	0.1	2		
Sida echinocarpa	0.1	0.7		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1.8		
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.3	CPH100-03	
Streptoglossa decurrens	0.1	0.6		
Tephrosia densa	0.1	0.5		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	1	0.3		
Themeda triandra	8	0.8		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.6		
Triodia pungens	0.1	0.4		
Waltheria indica	0.1	0.3		

Central Pilbara Hub **Site CPH-101**



Date	4/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	690510 mE;	7452662 mN
	118.859062 E	-23.023569 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii* low hummock grassland over *Eucalyptus gamophylla* low open mallee woodland over *Acacia bivenosa, Ptilotus rotundifolius* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	0.7		
Acacia bivenosa	1	1		
Acacia elachantha	0.1	0.5		
Acacia tenuissima	0.1	0.9		
Acacia trudgeniana	0.1	1.2		
Afrohybanthus aurantiacus	0.1	0.6		
Cymbopogon obtectus	0.1	0.8		
Duperreya commixta	0.1	1		
Enneapogon polyphyllus	0.1	0.3		
Eremophila longifolia	0.1	0.5		
Eucalyptus gamophylla	3	2.5		
Hakea chordophylla	0.1	1.4		
Halgania gustafsenii var. *gustafsenii*	0.1	0.4		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0.7		
Panicum effusum	0.1	0.4		
Paraneurachne muelleri	0.1	0.4		
Ptilotus astrolasius	0.1	0.7		
Ptilotus calostachyus	0.1	0.9		
Ptilotus rotundifolius	0.5	1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.3		
Senna glutinosa subsp. *pruinosa*	0.1	0.8		
Senna glutinosa subsp. x *luerssenii*	0.1	1.7		
Sida echinocarpa	0.1	0.4		
Solanum lasiophyllum	0.1	0.4		
Triodia pungens	0.1	0.4		
Triodia vanleeuwenii	34	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Vincetoxicum lineare	0.1	0.6		

Central Pilbara Hub **Site CPH-104**



Date	4/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	688990 mE;	7452249 mN
	118.844292 E	-23.027470 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii* low open hummock grassland over *Eucalyptus gamophylla* low open mallee woodland over *Acacia tenuissima* mid isolated shrubs over *Acacia trudgeniana, Scaevola spinescens, Acacia bivenosa* mid sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	0.9		
Acacia ancistrocarpa	0.1	1.2		
Acacia bivenosa	0.25	0.8		
Acacia dictyophleba	0.1	0.9		
Acacia pruinocarpa	0.1	1		
Acacia tenuissima	0.5	1.9		
Acacia trudgeniana	0.5	1.9		
Amphipogon sericeus	0.1	0.3		
Aristida holathera var. *holathera*	0.1	0.4		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.4		
Cymbopogon obtectus	0.1	0.7		
Duperreya commixta	0.1	1		
Enneapogon polyphyllus	0.1	0.4		
Eriachne mucronata	0.1	0.4		
Eucalyptus gamophylla	3	3		
Grevillea wickhamii subsp. *hispidula*	0.1	0.7		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Indigofera monophylla	0.1	0.3		
Paraneurachne muelleri	0.1	0.4		
Ptilotus astrolasius	0.1	0.5		
Ptilotus calostachyus	0.1	0.9		
Scaevola spinescens	0.5	1.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.9		
Senna glutinosa subsp. *pruinosa*	0.1	0.9		
Senna glutinosa subsp. x *luerssenii*	0.1	1.4		
Seringia exastia	0.1	0.5		
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.4		
Solanum lasiophyllum	0.1	0.5		
Themeda triandra	0.1	0.7		
Triodia pungens	0.5	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Triodia vanleeuwenii	29	0.3		

Central Pilbara Hub **Site CPH-107**



Date	1/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	688809 mE;	7451069 mN
	118.842668 E	-23.038145 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia pungens, Triodia wiseana* low open hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Senna glutinosa* subsp. *glutinosa, Sida* sp. Excedentifolia (J.L. Egan 1925) mid to low sparse shrubland.	
Notes	Aspect, North, South and West. Soil is Dark Red Brown.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon lepidum	0.1	0.25		
Abutilon otocarpum	0.1	0.25		
Acacia ancistrocarpa	0.1	1.2		
Acacia aptaneura	0.1	1		
Acacia dictyophleba	0.1	0.8		
Acacia hamersleyensis	0.1	1.9		
Acacia kempeana	0.1	0.4		
Acacia maitlandii	0.1	0.6		
Acacia marramamba	0.1	0.9		
Acacia pyrifolia var. *pyrifolia*	0.1	1.9		
Acacia tenuissima	0.1	1.3		
Amphipogon sericeus	0.1	0.3		
Aristida contorta	0.1	0.25		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.8	CPH107-02	
Codonocarpus cotinifolius	0.1	0.9		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.8		
Corymbia hamersleyana	0.1	1.2		
Cymbopogon ambiguus	0.1	0.5		
Cymbopogon obtectus	0.1	0.6		
Dampiera candicans	0.1	0.5		
Digitaria ammophila	0.1	0.6		
Dolichocarpa crouchiana	0.1	0.25		
Enneapogon polyphyllus	0.1	0.3		
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109) (P2)	0.1	0.4	CPH107-01	
Eremophila jucunda subsp. *pulcherrima*	0.1	0.6		
Eriachne mucronata	0.1	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	2	6		
Eulalia aurea	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Goodenia stobbsiana	0.1	0.4		
Goodenia triodiophila	0.1	0.25		
Grevillea wickhamii subsp. *hispidula*	0.1	0.8		
Hakea chordophylla	0.1	1.5		
Hibiscus burtonii	0.1	0.9		
Hibiscus coatesii	0.1	0.6		
Jasminum didymum subsp. *lineare*	0.1	1.4		
Panicum effusum	0.1	0.25		
Paraneurachne muelleri	0.1	0.4		
Paspalidium clementii	0.1	0.1		
Ptilotus calostachyus	0.1	1.3		
Ptilotus exaltatus	0.1	0.6		
Schizachyrium fragile	0.1	0.25		
Senna artemisioides subsp. *helmsii*	0.1	0.1		
Senna artemisioides subsp. *oligophylla*	0.1	0.9		
Senna glutinosa subsp. *glutinosa*	0.5	1.3		
Senna glutinosa subsp. x *luerssenii*	0.1	1.3		
Senna notabilis	0.1	0.5		
Sida arenicola	0.1	1		
Sida cardiophylla	0.1	0.4		
Sida echinocarpa	0.1	0.8		
Sida sp. Excedentifolia (J.L. Egan 1925)	1	0.5		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.8		
Solanum horridum	0.1	0.4		
Solanum lasiophyllum	0.1	0.5		
Sporobolus australasicus	0.1	0.25		
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	0.1	0.5		
Trichodesma zeylanicum var. *zeylanicum*	0.1	1		
Triodia pungens	8	0.4		
Triodia wiseana	3	0.3		

Central Pilbara Hub **Site CPH-111**



Date	28/04/2022	
Described by	Ryonen Butcher, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	689744 mE;	7450165 mN
	118.851900 E	-23.046204 S
Veg Condition	Very Good	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Recent (0 to 2 yr)	
Habitat	Sandy/ Stony Plain	
Vegetation	*Triodia vanleeuwenii* low sparse hummock grassland with *Eucalyptus gamophylla* low open mallee woodland over *Ptilotus rotundifolius* low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.5		
Amphipogon sericeus	0.1	0.3		
Aristida contorta	0.1	0.15		
Aristida holathera var. *holathera*	0.1	0.4		
Digitaria brownii	0.1	0.4		
Duperreya commixta	0.1	0.1		
Enneapogon lindleyanus	0.1	0.15	CPH 111-03	
Eragrostis eriopoda	0.1	0.2	CPH 111-02	
Eucalyptus gamophylla	3	1.7		
Euploca ?inexplicita	0.1	0.15	CPH 111-01	
Goodenia microptera	0.1	0.15		
Hakea chordophylla	0.1	0.15		Resprout
Hibiscus burtonii	0.1	0.4		
Indigofera monophylla	0.1	0.2		
Paraneurachne muelleri	0.1	0.2		
Ptilotus exaltatus	0.1	0.3		Dead
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Ptilotus rotundifolius	0.5	0.6		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *helmsii*	0.1	0.15		
Senna artemisioides subsp. *oligophylla*	0.1	0.1		
Senna glutinosa subsp. *glutinosa*	0.1	0.8		
Senna glutinosa subsp. x *luerssenii*	0.1	0.5		
Sida arenicola	0.1	0.5		
Sida cardiophylla	0.1	0.2		
Sida echinocarpa	0.1	0.3		
Solanum centrale	0.1	0.3	COH 111-04	
Solanum horridum	0.1	0.15		
Solanum lasiophyllum	0.1	0.15		
Triodia pungens	0.1	0.25		
Triodia vanleeuwenii	9	0.45		

Central Pilbara Hub **Site CPH-113**



Date	29/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	691748 mE;	7449986 mN
	118.871470 E	-23.047584 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii* low open hummock grassland with *Eucalyptus gamophylla* low open mallee woodland over *Indigofera monophylla* low isolated shrubs over *Amphipogon sericeus* low isolated tussock grasses.	
Notes	Site patchily burnt.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	0.1	1.5		
Acacia bivenosa	0.1	1		
Acacia maitlandii	0.1	0.3		
Acacia tenuissima	0.1	1.6		
Amphipogon sericeus	0.25	0.4		
Aristida contorta	0.1	0.25		
Aristida inaequiglumis	0.1	0.9	CPH113-01	
Clerodendrum floribundum var. *angustifolium*	0.1	1.2		
Codonocarpus cotinifolius	0.1	0.3		
Cymbopogon ambiguus	0.1	0.9		
Enneapogon polyphyllus	0.1	0.25		
Eucalyptus gamophylla	4	4.5		
Goodenia microptera	0.1	0.25		
Goodenia stobbsiana	0.1	0.4		
Goodenia triodiophila	0.1	0.3		
Hakea lorea subsp. *lorea*	0.1	0.2		
Indigofera monophylla	0.25	0.4		
Paraneurachne muelleri	0.1	0.4		
Ptilotus calostachyus	0.1	1		
Ptilotus rotundifolius	0.1	0.7		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.9		
Senna glutinosa subsp. *glutinosa*	0.1	0.5		
Senna glutinosa subsp. *pruinosa*	0.1	0.5		
Sida arenicola	0.1	0.5		
Sida sp. Excedentifolia (J.L. Egan 1925)	0.1	0.4		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1		
Solanum horridum	0.1	0.4		
Solanum lasiophyllum	0.1	0.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	0.1	0.4		
Triodia vanleeuwenii	19	0.5		

Central Pilbara Hub **Site CPH-115**



Date	4/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	693083 mE;	7449472 mN
	118.884567 E	-23.052071 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Recent (0 to 2 yr)	
Habitat	Footslope	

Vegetation *Triodia vanleeuwenii* low sparse hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Eucalyptus gamophylla* low isolated mallee trees over *Amphipogon sericeous* low isolated tussock grasses.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	0.1	0.4		
Acacia pachyacra	0.1	0.9		
Acacia tenuissima	0.1	0.5		
Amphipogon sericeus	0.5	0.25		
Aristida contorta	0.1	0.25		
Codonocarpus cotinifolius	0.1	1		
Cymbopogon obtectus	0.1	0.6		
Dodonaea coriacea	0.1	0.4		
Eucalyptus gamophylla	0.5	2		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	5		
Euploca inexplicita	0.1	0.1		
Gompholobium oreophilum	0.1	0.4		
Goodenia triodiophila	0.1	0.25		
Hakea chordophylla	0.1	1		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Indigofera monophylla	0.1	0.3		
Mirbelia viminalis	0.1	0.3		
Paraneurachne muelleri	0.1	0.4		
Ptilotus calostachyus	0.1	0.9		
Senna glutinosa subsp. *glutinosa*	0.1	1.7		
Senna glutinosa subsp. *pruinosa*	0.1	0.7		
Sida sp. Excedentifolia (J.L. Egan 1925)	0.1	0.3		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.5		
Solanum horridum	0.1	0.25		
Solanum lasiophyllum	0.1	0.5		
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	0.1	0.5		
Triodia vanleeuwenii	6	0.25		
Triodia wiseana	0.1	0.25		

Central Pilbara Hub **Site CPH-116**



Date	28/04/2022	
Described by	Clinton van den Bergh, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	693093 mE;	7448671 mN
	118.884758 E	-23.059303 S
Veg Condition	Very Good	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillslope	

Vegetation *Triodia vanleeuwenii, Triodia pungens* low open hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia, Eucalyptus gamophylla* low open woodland over *Ptilotus rotundifolius, Gompholobium oreophilum, Indigofera monophylla* low isolated shrubs over *Amphipogon sericeus* low isolated clumps of tussock grasses.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2	CPH116.03	
Acacia adsurgens	0.1	0.3	CPH-029-02	
Acacia aptaneura	0.1	0.2	CPH116.07	
Acacia bivenosa	0.1	0.4		
Acacia hamersleyensis	0.1	1	CPH116.01	
Amphipogon sericeus	0.1	0.3		
Androcalva luteiflora	0.1	0.3		
Codonocarpus cotinifolius	0.1	1.6		
Duperreya commixta	0.1	0		
Eucalyptus gamophylla	1	2.2		
Eucalyptus leucophloia subsp. *leucophloia*	1	4		
Gompholobium oreophilum	0.1	0.5		
Goodenia stobbsiana	0.1	0.2		
Hakea lorea subsp. *lorea*	0.1	2.5		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Indigofera monophylla	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	0.1	0.8		
Psydrax rigidula	0.1	0.3		
Ptilotus calostachyus	0.1	0.3		
Ptilotus clementii	0.1	0.1	CPH116.06	
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Ptilotus rotundifolius	0.1	0.5		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.1		
Senna glutinosa subsp. x *luerssenii*	0.1	0.6		
Seringia exastia	0.1	0.4		
Sida arenicola	0.1	0.9	CPH116.02	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.2	CPH015.05 CPHR02.02	
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.2	CPH-51-04	
Solanum ?cleistogamum	0.1	0.2	CPH116.05	
Solanum sp. Indet	0.1	0.2	CPH116.04	
Triodia pungens	1	0.3		
Triodia vanleeuwenii	15	0.2		

Central Pilbara Hub **Site CPH-117**



Date	29/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	693928 mE;	7447609 mN
	118.893043 E	-23.068797 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aptaneura* tall open shrubland over *Sida ectogama, Eremophila forrestii* subsp. *forrestii* mid sparse shrubland over *Triodia pungens* low sparse hummock grassland with *Maireana villosa* low isolated chenopod shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cryptopetalum	0.1	0.8	CPH117-03	
Acacia aptaneura (short/broad phyllode variant)	20	7	CPH117-01	
**Bidens bipinnata*	0.1	0.25		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Chrysopogon fallax	0.1	1		
Digitaria ammophila	0.1	0.8		
Digitaria brownii	0.1	0.8		
Enchylaena tomentosa var. *tomentosa*	0.1	0.3		.
Enneapogon caerulescens	0.1	0.25		
Enneapogon polyphyllus	0.1	0.3		
Enneapogon robustissimus	0.1	0.8		
Eremophila forrestii subsp. *forrestii*	1	1.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.7		
Gomphrena affinis subsp. *pilbarensis*	0.1	0.25		
Hibiscus burtonii	0.1	0.9		
Hibiscus coatesii	0.1	0.9		
Maireana planifolia x *villosa*	0.1	0.6	CPH117-02	Hybrid taxon.
Maireana villosa	0.1	0.4		
Paspalidium clementii	0.1	0.25		
Psydrax suaveolens	0.1	1.6		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.2		
Sida ectogama	2	1.5		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.8		
Sida sp. L (A.M. Ashby 4202)	0.1	0.25		
Solanum horridum	0.1	0.4		
Triodia pungens	1	0.4		
Vincetoxicum lineare	0.1	1.6		

Central Pilbara Hub **Site CPH-118**



Date	29/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	693373 mE;	7447129 mN
	118.887690 E	-23.073189 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	

Vegetation *Acacia aptaneura, Acacia pruinocarpa* tall open shrubland over *Ptilotus obovatus* var. *obovatus, Eremophila forrestii* subsp. *forrestii* low sparse shrubland with *Eucalyptus xerothermica* low isolated trees over *Maireana villosa* low sparse chenopod shrubs with *Triodia pungens, Themeda triandra, Chrysopogon fallax* low sparse hummock and tussock grassland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon macrum	0.1	0.9		
Abutilon otocarpum	0.1	0.25		
Acacia aptaneura (short/broad phyllode variant)	9	6	CPH117-01	
Acacia dictyophleba	0.1	0.9		
Acacia pachyacra	0.1	1.1		
Acacia pruinocarpa	1	5		
Alternanthera nana	0.1	0.25		
Aristida obscura	0.1	0.25		
Arivela viscosa	0.1	0.25		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.25		
Boerhavia repleta	0.1	0.1		
Chrysopogon fallax	1	0.9		
Cymbopogon obtectus	0.1	0.4		
Digitaria ammophila	0.1	0.5		
Digitaria brownii	0.25	0.4		
Duperreya commixta	0.1	1		
Enneapogon polyphyllus	0.1	0.3		
Enneapogon robustissimus	0.25	0.9		
Eremophila forrestii subsp. *forrestii*	0.5	1.8		
Eriachne mucronata	0.1	0.4		
Eucalyptus xerothermica	1	5		
Euphorbia australis var. *hispidula*	0.1	0.02	CPH118-01	
Euphorbia biconvexa	0.1	0.3	CPH118-03	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.3		
Hibiscus burtonii	0.1	0.8		
Hibiscus coatesii	0.1	0.5		
Maireana planifolia	0.1	0.5	CPH118-02	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Maireana villosa	1	0.5		
Paraneurachne muelleri	0.1	0.4		
**Portulaca oleracea*	0.1	0.1		
Psydrax rigidula	0.1	1.6		
Ptilotus astrolasius	0.1	0.5		
Ptilotus helipteroides	0.1	0.1		
Ptilotus obovatus var. *obovatus*	1.5	0.8		
Rhagodia eremaea	0.1	0.9		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.5		
Salsola australis	0.1	0.4		
Sclerolaena cornishiana	0.1	0.4		
Sida echinocarpa	0.1	0.8		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.5		
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Solanum lasiophyllum	0.1	0.4		
Teucrium teucriiflorum	0.1	0.8		
Themeda triandra	0.25	1		
Triodia pungens	5	0.5		
Vincetoxicum lineare	0.1	1		

Central Pilbara Hub **Site CPH-119**



Date	29/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	692863 mE;	7446851 mN
	118.882743 E	-23.075762 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Other	
Vegetation	*Acacia aptaneura* tall sparse shrubland over *Ptilotus obovatus* var. *obovatus, Sida* sp. L (A.M. Ashby 4202) low sparse shrubland over *Chrysopogon fallax, Themeda triandra* tall sparse tussock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cryptopetalum	0.1	0.9	CPH117-03	
Abutilon fraseri subsp. *fraseri*	0.1	0.4		
Abutilon otocarpum	0.1	0.5		
Acacia aptaneura (short/broad phyllode variant)	7	3	CPH117-01	
Aristida contorta	0.1	0.3		
Aristida obscura	0.1	0.3		
Arivela viscosa	0.1	0.4		
**Bidens bipinnata*	2	0.1		
Boerhavia coccinea	0.1	0.25		
Boerhavia repleta	0.1	0.25		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
**Chloris virgata*	0.1	0.3	CPH119-08	
Chrysopogon fallax	5	1		
Commelina ensifolia	0.1	0.25		
Convolvulus clementii	0.1	0.3		
Corchorus tridens	0.1	0.08	CPH119-07	
Cucumis variabilis	0.1	0.9		
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum subsp. *humilius*	0.1	0.25		
Digitaria ctenantha	0.1	0.3		
Enneapogon polyphyllus	0.1	0.3		
Enneapogon robustissimus	0.5	1.1		
Eremophila lanceolata	0.1	0.4		
Euphorbia biconvexa	0.1	0.25		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.25		
Goodenia muelleriana	0.1	0.4		
Iseilema eremaeum	0.1	0.1	CPH119-02	
Lepidium phlebopetalum	0.1	0.25	CPH119-04	
Maireana planifolia	0.1	0.8	CPH119-06	Possible hybrid with *M. villosa*

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Maireana planifolia	0.1	0.4		
Maireana villosa	0.1	0.4		
Melhania oblongifolia	0.1	0.6		
Perotis rara	0.1	0.1		
Portulaca filifolia	0.1	0.1		Sterile
**Portulaca oleracea*	0.1	0.1		
Ptilotus astrolasius	0.1	0.5		
Ptilotus exaltatus	0.1	0.5		
Ptilotus gaudichaudii	0.1	0.3		
Ptilotus helipteroides	0.1	0.4		
Ptilotus obovatus var. *obovatus*	2	0.9		
Rhagodia eremaea	0.1	1.6		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1	CPH119-03	
Salsola australis	0.1	0.3		
Sclerolaena cornishiana	0.1	0.4		
Sida fibulifera	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.5	0.25		
Solanum ferocissimum	0.1	0.1	CPH119-05	
**Sonchus oleraceus*	0.1	0.1		
Swainsona kingii	0.1	0.1		
Teucrium teucriiflorum	0.1	0.6		
Themeda triandra	2	1.2		
Tragus australianus	0.1	0.1		
Tribulus astrocarpus	0.1	0.05		
**Tribulus terrestris*	0.1	0.1		
Tripogonella loliiformis	0.1	0.1		
Urochloa occidentalis var. *ciliata*	0.1	0.25		
Vincetoxicum lineare	0.1	1		

Central Pilbara Hub **Site CPH-120**



Date	17/04/2023	
Described by	Clinton van den Bergh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	691320 mE;	7447610 mN
	118.867593 E	-23.069087 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Triodia vanleeuwenii, Triodia pungens* low hummock grassland with *Eucalyptus gamophylla, Corymbia deserticola* subsp. *deserticola* low open mallee woodland over *Acacia tenuissima* mid sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	0.1	1.4		
Acacia dictyophleba	0.1	2		
Acacia sibirica	0.1	1.6		
Acacia tenuissima	1	1.4		
Amphipogon sericeus	0.1	0.3		
Aristida contorta	0.1	0.1		
Aristida holathera var. *holathera*	0.1	0.2		
Corymbia deserticola subsp. *deserticola*	0.1	3.8		
Digitaria brownii	0.1	0.4		
Dodonaea coriacea	0.1	0.9		
Duperreya commixta	0.1	0.1		
Eriachne lanata	0.1	0.4		
Eucalyptus gamophylla	3	4.2		
Fimbristylis dichotoma	0.1	0.1		
Gompholobium oreophilum	0.1	0.9		
Goodenia stobbsiana	0.1	0.2		
Hibiscus sp. Gardneri (A.L. Payne PRP 1435)	0.1	0.3	CPH120.01	
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Indigofera monophylla	0.1	0.3		
Panicum effusum	0.1	0.3		
Paraneurachne muelleri	0.1	0.2		
Ptilotus calostachyus	0.1	0.3		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	1.4		
Senna glutinosa subsp. x *luerssenii*	0.1	1.8		
Seringia exastia	0.1	0.3		
Sida ?fibulifera	0.1	0.2	CPH120.02	
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1.6		
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)	0.1	0.1		
Themeda triandra	0.1	0.6		
Triodia pungens	3	0.6		
Triodia vanleeuwenii	55	0.3		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-121**



Date	29/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	690623 mE;	7447070 mN
	118.860862 E	-23.074048 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Other	
Vegetation	*Themeda triandra* tall tussock grassland with *Triodia pungens* low sparse hummock grassland with *Eucalyptus xerothermica* low open woodland over *Acacia aptaneura*, *Eremophila longifolia, Senna artemisioides* subsp. × *artemisioides* tall sparse shrublands.	
Notes	Possibly SE corner in Mulga vegetation with much less *Themeda triandra* (not true floodplain with *Eucalyptus xerothermica*).	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	1	0.6		
Abutilon otocarpum	0.1	0.4		
Acacia aptaneura	3	5		
Alternanthera nana	0.1	0.25		
Aristida contorta	0.1	0.4		
Arivela viscosa	0.1	0.4		
**Bidens bipinnata*	2	0.3		
Boerhavia coccinea	0.1	0.3		
Boerhavia repleta	0.1	0.25		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.22		
Chrysocephalum gilesii	0.1	0.25	CPH131-06	
Chrysopogon fallax	0.5	1		
Commelina ensifolia	0.1	0.25		
Convolvulus clementii	0.1	0.4		
Corchorus tridens	0.1	0.1		
Cucumis variabilis	0.1	0.7		
Dactyloctenium radulans	0.1	0.1		
Digitaria ctenantha	0.1	0.4		
Dipteracanthus australasicus subsp. *australasicus*	0.5	0.3		
Duperreya commixta	0.1	1		
Enneapogon polyphyllus	0.5	0.4		
Enneapogon robustissimus	0.1	0.9		
Eremophila forrestii subsp. *forrestii*	0.1	1.6		
Eremophila longifolia	2	2.5		
Eriachne mucronata	0.1	0.4		
Eucalyptus xerothermica	6	7		
Euphorbia ?biconvexa	0.1	0.15	CPH121-05	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Euphorbia biconvexa	0.1	0.3		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.25		
Goodenia muelleriana	0.1	0.1		
Goodenia stellata	3	0.1		
Haloragis sp. Indet	0.1	0.1	CPH121-07	
Hibiscus sturtii var. *grandiflorus*	0.1	0.3		
Indigofera georgei	0.1	0.4		
Isotropis iophyta	0.1	0.9		
**Malvastrum americanum*	0.1	0.3		
Paraneurachne muelleri	0.1	0.4		
Perotis rara	0.1	0.1		
Polymeria ambigua	0.1	0.1	CPH121-02	
Pterocaulon sphacelatum	0.1	1		
Ptilotus astrolasius	0.1	0.5		
Ptilotus obovatus var. *obovatus*	1	0.9		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.2		
Rhynchosia minima	0.1	0.4		
Salsola australis	0.1	0.1		
Scaevola amblyanthera var. *centralis*	0.1	0.25	CPH121-04	
Senna artemisioides subsp. x *artemisioides*	1	2.3	CPH121-01	
Senna notabilis	0.1	0.4		
Sida fibulifera	2	0.25		
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Solanum ferocissimum	0.1	0.3		
Solanum lasiophyllum	0.1	0.4		
Streptoglossa decurrens	0.1	0.3		
Themeda triandra	36	1.3		
Triodia pungens	1	0.4		
Urochloa piligera	0.1	0.1	CPH121-08	
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)	1	0.25	CPH121-03	
Vincetoxicum lineare	0.1	0.6		

Central Pilbara Hub **Site CPH-122**



Date	30/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	688054 mE;	7445255 mN
	118.836018 E	-23.090723 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aptaneura, Acacia pruinocarpa, Acacia kempeana* tall open shrubland over *Triodia pungens* low open hummock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aneura	0.5	2	CPH122-01	
Acacia aptaneura (short/broad phyllode variant)	8	2.5	CPH117-01	
Acacia bivenosa	0.1	2.3		
Acacia kempeana	2.5	3.5		
Acacia pruinocarpa	5	3.5		
Anthobolus leptomerioides	0.1	1		
Aristida obscura	0.1	0.2		
Codonocarpus cotinifolius	0.1	0.4		
Dactyloctenium radulans	0.1	0.1		
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.3		
Eremophila forrestii subsp. *forrestii*	0.2	1.3		
Eriachne mucronata	0.1	0.3		
Grevillea berryana	0.1	2		
Hakea lorea subsp. *lorea*	0.1	0.5		
Hibiscus burtonii	0.1	0.8		
Panicum effusum	0.1	0.2		
Polygala glaucifolia	0.1	0.1		
Psydrax suaveolens	0.1	2		
Ptilotus calostachyus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Ptilotus rotundifolius	0.1	0.8		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.4		
Sida ectogama	0.1	0.9		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.4		
Solanum ferocissimum	0.1	0.1		
Solanum lasiophyllum	0.1	1		
Triodia melvillei	0.1	0.5		
Triodia pungens	12	0.5		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-123**



Date	30/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	686744 mE;	7444860 mN
	118.823273 E	-23.094442 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aptaneura, Acacia ayersiana, Acacia pruinocarpa* tall open shrubland over *Triodia pungens, Triodia melvillei* low sparse hummock grassland over *Hibiscus burtonii, Sida* sp. dark green fruits (S. van Leeuwen 2260) low isolated shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	2	4		
Acacia ayersiana	2	3		
Acacia pruinocarpa	0.1	1.2		
Anthobolus leptomerioides	0.1	0.3		
Aristida obscura	0.5	1		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	1		
Chrysopogon fallax	0.1	2.5		
Corymbia deserticola subsp. *deserticola*	0.1	0.1		
Cucumis variabilis	0.1	0.3		
Digitaria ammophila	0.1	0.2		
Enneapogon polyphyllus	0.1	1.6	CPH-PL008	
Eremophila clarkei	0.1	1.1		
Eremophila forrestii subsp. *forrestii*	0.1	0.1		
Euphorbia australis var. *hispidula*	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Goodenia muelleriana	0.5	0.4		
Hibiscus burtonii	0.1	0.3		
Hibiscus sturtii var. *grandiflorus*	0.1	0.1	CPH123-02	
Iseilema eremaeum	0.1	0.4		
Maireana planifolia	0.1	0.3		
Maireana villosa	0.1	0.3		
Paspalidium clementii	0.1	0.1		
Perotis rara	0.1	0.1		
Polygala glaucifolia	0.1	0.3		
Psydrax latifolia	0.1	1.3		
Psydrax suaveolens	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus helipteroides	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus obovatus var. *obovatus*	0.1	1.1		
Ptilotus rotundifolius	0.1	1.6		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.4		
Senna artemisioides subsp. *oligophylla*	0.1	1.5		
Senna glutinosa subsp. *glutinosa*	0.1	0.1		
Senna notabilis	0.25	0.6		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.1		
Solanum ferocissimum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Teucrium teucriiflorum	0.5	0.4		
Triodia melvillei	8	0.4		
Triodia pungens	0.1	0		

Central Pilbara Hub **Site CPH-124**



Date	30/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	683788 mE;	7444824 mN
	118.794432 E	-23.095098 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Claypan	
Vegetation	*Acacia pteraneura, Acacia aptaneura* tall open shrubland over *Aristida contorta* low sparse tussock grassland over *Goodenia prostrata, Ptilotus roei* low sparse herbland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2		
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)	0.1	0.1		
Acacia aptaneura	2	3		
Acacia pteraneura	8	3	CPH124-03	
Alternanthera angustifolia	0.1	0.1		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	6	0.2		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	1	0.1		
Boerhavia repleta	0.1	0.1		
Calandrinia ?ptychosperma	0.1	0.1	CPH127-12	
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
**Chloris virgata*	0.1	0.4	CPH127-15	
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum subsp. *humilius*	0.1	0.1		
Digitaria ammophila	0.1	0.2		
Digitaria ctenantha	0.1	0.3		
Dysphania kalpari	0.1	0.2		
Enneapogon polyphyllus	0.1	0.3		
Eragrostis pergracilis	0.1	0.1		
Eremophila flaccida	0.1	0.4		
Eriachne pulchella	0.1	0.1		
Euphorbia drummondii	0.1	0.1	CPH127-08	
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH-127-X	
Euploca tanythrix	0.1	0.2	CPH124-02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.1	CPH127-04	
Gomphrena cunninghamii	0.2	0.1	CPH-PL009	
Goodenia nuda	0.1	0.2		
Goodenia prostrata	1.5	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Iseilema membranaceum	0.1	0.1	CPH127-05	
Lepidium echinatum	0.1	0.1		
Maireana planifolia	0.1	0.4		
Paspalidium rarum	0.1	0.2		
Peplidium muelleri	0.1	0.1	CPH124-01	
Perotis rara	0.1	0.1		
Polygala isingii	0.1	0.1	CPH127-09	
**Portulaca oleracea*	0.1	0.1		
Ptilotus calostachyus	0.1	0.4		
Ptilotus exaltatus	0.1	0.2		
Ptilotus gaudichaudii	0.1	0.2		
Ptilotus roei	2	0.2		
Ptilotus schwartzii var. *schwartzii*	0.1	0.2		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.7		
Roebuckiella similis	0.2	0.1	CPH127-03	
Sclerolaena costata	0.1	0.1		
Senna notabilis	0.1	0.1		
Sida fibulifera	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum horridum	0.1	0.1		
Solanum lasiophyllum	0.1	0.1		
Stenopetalum nutans	0.1	0.2	CPH127-02	
Swainsona kingii	0.1	0.1		
Tribulus astrocarpus	0.1	0.1		
Triodia pungens	0.1	0.7		
Tripogonella loliiformis	0.1	0.1		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-126**



Date	20/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	684046 mE;	7444068 mN
	118.797038 E	-23.101892 S
Veg Condition	Very Good	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia melvillei, Triodia pungens* low open hummock grassland with *Acacia aptaneura, Acacia pruinocarpa, Acacia catenulata* subsp. *occidentalis* tall open shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	0.1	2.5		
Acacia aptaneura	5	5		
Acacia catenulata subsp. *occidentalis*	3	4		
Acacia pachyacra	0.1	1.8		
Acacia pruinocarpa	3	4		
Anthobolus leptomerioides	0.1	2		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.3		
Digitaria ammophila	0.1	0.2		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	0.5		
Euphorbia sp. Indet	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1		
Hibiscus burtonii	0.1	0.4		
Maireana villosa	1	0.2		
Psydrax suaveolens	0.1	2.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus rotundifolius	0.1	0.4		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.5		
Senna notabilis	0.1	0.1		
Solanum ferocissimum	0.1	0.2		
Triodia melvillei	15	0.5		
Triodia pungens	1	0.3		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-127**



Date 30/04/2022
Described by Emma Marsh, P-L. de Kock
Type Quadrat 50m x 50m
Location MGA Zone 50
683609 mE; 7444401 mN
118.792734 E -23.098932 S
Veg Condition Excellent
Soil Clay Loam
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Claypan
Vegetation *Acacia aptaneura, Acacia pteraneura* tall sparse shrubland over *Aristida contorta, Eragrostis pergracilis* low sparse tussock grassland with *Sida* sp. L (A.M. Ashby 4202) low isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.2	0.6		
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)	0.1	0.1		
Acacia aptaneura	1	3.5		
Acacia pteraneura	6	3	CPH124-03	
Alternanthera angustifolia	0.1	0.1	CPH127-06	
Areocleome oxalidea	0.1	0.1		
Aristida contorta	10	0.3		
**Bidens bipinnata*	0.1	0.1		
Boerhavia repleta	0.1	0.2		
Calandrinia ?ptychosperma	0.1	0.1	CPH127-12	
Calandrinia pumila	0.1	0.1	CPH127-13	
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Chloris pectinata	0.1	0.3		
**Chloris virgata*	0.1	0.2	CPH127-15	
Chrysocephalum gilesii	0.1	0.2	CPH127-14	
Codonocarpus cotinifolius	0.1	0.3		
Convolvulus clementii	0.1	0		
Dichanthium sericeum subsp. *humilius*	0.1	0.1		
Dysphania glomulifera subsp. *eremaea*	0.1	0.1	CPH127-07	
Dysphania kalpari	0.1	0.1		
Dysphania rhadinostachya	0.1	0.2		Sterile
Enneapogon polyphyllus	0.1	0.2		
Eragrostis cumingii	0.1	0.2		
Eragrostis pergracilis	3	0.2		
Eremophila lanceolata	0.1	0.3		
Eriachne flaccida	0.2	0.4		
Eriachne pulchella	0.1	0.1		
Euphorbia drummondii	0.1	0.1	CPH127-08	
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH-127-01	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH127-04	
Gomphrena cunninghamii	0.1	0.1	CPH127-10	
Goodenia nuda	0.1	0.2		
Goodenia prostrata	1	0.1		
Hibiscus burtonii	0.1	0.4		
Iseilema membranaceum	0.1	0.1	CPH127-05	
Lepidium echinatum	0.2	0.2		
Ophioglossum lusitanicum	0.1	0.1	CPH127-11	
Panicum effusum	0.1	0.1		
Paspalidium rarum	0.1	0.1		
Perotis rara	1	0.1		
Polygala isingii	0.1	0.1	CPH127-09	
**Portulaca oleracea*	0.1	0.1		
Pterocaulon serrulatum	0.1	0.1		
Ptilotus exaltatus	0.1	0.2		
Ptilotus gaudichaudii	0.1	0.3		
Ptilotus helipteroides	0.1	0.1		
Ptilotus roei	0.5	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.2		
Roebuckiella similis	0.5	0.1	CPH127-03	
Salsola australis	0.1	0.4		
Senna notabilis	0.1	0.1		
Sida cardiophylla	0.1	0.4		
Sida fibulifera	0.1	0.4		
Sida platycalyx	0.1	0.4		
Sida sp. L (A.M. Ashby 4202)	0.5	0.3		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.9		
Solanum lasiophyllum	0.1	0.2		
Sporobolus australasicus	0.1	0.1		
Stenopetalum nutans	0.1	0.2	CPH127-02	
Streptoglossa bubakii	0.1	0.1		
Swainsona kingii	0.1	0.1		
Synaptantha tillaeacea var. *tillaeacea*	0.1	0.1		
Tribulus astrocarpus	0.1	0.1		
Tripogonella loliiformis	0.1	0.1		

Central Pilbara Hub **Site CPH-128**



Date	20/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	680863 mE;	7444023 mN
	118.765978 E	-23.102652 S
Veg Condition	Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	

Vegetation *Acacia catenulata* subsp. *occidentalis, Acacia aneura, Acacia pruinocarpa* low open woodland over *Triodia melvillei* low sparse hummock grassland over *Maireana villosa, Cheilanthes sieberi* subsp. *sieberi*, ***Bidens bipinnata*, *Sida ectogama* low sparse shrubland and herbland with low isolated tussock grasses.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	0.1	5		
Acacia catenulata subsp. *occidentalis*	8	5		
Acacia pruinocarpa	0.1	4.5		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	0.1	0.1		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3	CPH128.06	
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.1		
Calandrinia sp. Indet	0.1	0.1		Sterile
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Crassula tetramera	0.1	0.1	CPH128.01	
Cucumis variabilis	0.1	0.1		
Digitaria ammophila	0.1	0.1		
Digitaria brownii	0.1	0.2		
Duperreya commixta	0.1	0.1		
Dysphania kalpari	0.1	0.1		
Dysphania melanocarpa	0.1	0.1	CPH169.10	
Enneapogon polyphyllus	0.1	0.2		
Eragrostis pergracilis	0.1	0.1	CPH156.06	
Eragrostis xerophila	0.1	0.3	CPH-161	
Eremophila latrobei subsp. *filiformis*	0.1	2.1		
Eriachne helmsii	0.1	0.3	CPH128.07	
Eriachne pulchella subsp. *pulchella*	0.1	0.1		
Euphorbia drummondii	0.1	0.1	CPH041-02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Gomphrena canescens	0.1	0.1		
Grevillea berryana	0.1	4.5		
Hibiscus burtonii	0.1	0.6		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Maireana villosa	0.1	0.3		
Nicotiana rosulata	0.1	0.1	CPH128.05	
Ophioglossum lusitanicum	0.1	0.1		
Oxalis perennans	0.1	0.1	CPH128.04	
Paspalidium clementii	0.1	0.2	CPH169.06	
Perotis rara	0.1	0.1		
Polycarpaea corymbosa var. *corymbosa*	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Psydrax latifolia	0.1	2.4		
Psydrax suaveolens	0.1	0.4		
Pterocaulon sphacelatum	0.1	0.1		
Ptilotus calostachyus	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.1		
Ptilotus polystachyus	0.1	0.4	CPH056.06	
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.2		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.6		
Roebuckiella similis	0.1	0.1		
Senna notabilis	0.1	0.1		
Sida ectogama	0.1	0.9		
Sida platycalyx	0.1	0.1		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum ferocissimum	0.1	0.1		
Stenopetalum ?anfractum	0.1	0.1	CPH128.03	
Thyridolepis mitchelliana	0.1	0.3	CPH128.02	
Triodia melvillei	1	0.4		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-129**



Date 30/04/2022
Described by Emma Marsh, P-L. de Kock
Type Quadrat 50m x 50m
Location MGA Zone 50
682417 mE; 7444591 mN
118.781083 E -23.097347 S
Veg Condition Excellent
Soil Clay Loam
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Other
Vegetation *Acacia aneura* low open woodland over *Aristida contorta* low open tussock grassland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)	0.1	0.2		
Acacia aneura	5	3.5	CPH129-03	
Alternanthera angustifolia	0.1	0.1		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	12	0.3		
**Bidens bipinnata*	0.1	0.1		
Boerhavia repleta	0.1	0.1		
Calandrinia ?ptychosperma	0.1	0.1	CPH127-12	
Calandrinia pumila	0.1	0.1	CPH127-13	
Calotis hispidula	0.1	0.2	CPH129-07	
Calotis plumulifera	0.1	0.2	CPH129-06	
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chloris pectinata	0.1	0.3		
**Chloris virgata*	0.1	0.5	CPH127-15	
Codonocarpus cotinifolius	0.1	0.2		
Convolvulus clementii	0.1	0.1		
Corymbia candida subsp. *candida*	0.5	2.5		
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum subsp. *humilius*	0.1	0.1		
Digitaria ammophila	0.1	0.2		
Digitaria ctenantha	0.1	0.2		
Dysphania glomulifera subsp. *eremaea*	0.1	0.2	CPH127-07	
Dysphania kalpari	0.1	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis cumingii	0.1	0.2		
Eragrostis pergracilis	0.1	0.1		
Eriachne benthamii	0.1	0.7		
Eriachne pulchella	0.1	0.1		
Euphorbia drummondii	0.1	0.1	CPH127-08	
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH-127	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Fimbristylis dichotoma	0.1	0.2	CPH127-04	
Gomphrena cunninghamii	0.1	0.1	CPH-PL009	
Goodenia nuda	0.1	0.3		
Goodenia prostrata	0.2	0.1		
Grevillea berryana	0.1	1.5		
Iseilema eremaeum	0.1	0.1	CPH129-05	
Lepidium phlebopetalum	0.2	0.3	CPH119-04	
Menkea villosula	0.1	0.1	CPH129-01	
Paspalidium clementii	0.1	0.1		
Perotis rara	0.1	0.1		
Polygala isingii	0.1	0.1	CPH127-09	
**Portulaca oleracea*	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.3		
Ptilotus helipteroides	0.1	0.3		
Rhodanthe propinqua	0.1	0.1	CPH129-02	
Roebuckiella similis	0.1	0.1	CPH127-03	
Salsola australis	0.1	0.4		
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Solanum lasiophyllum	0.1	0.1		
Sporobolus australasicus	0.1	0.1		
Stenopetalum nutans	0.5	0.1	CPH127-02	
Swainsona canescens	0.1	0.1	CPH129-04	
Tribulus astrocarpus	0.1	0.1		
**Tribulus terrestris*	0.1	0.1		

Central Pilbara Hub **Site CPH-130**



Date	20/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	682160 mE;	7444455 mN
	118.778587 E	-23.098606 S
Veg Condition	Poor	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aneura* low woodland over low mixed isolated herbs, tussock grasses and chenopod shrubs.	
Notes	Little to no understorey of any real dominance.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
?*Blumea tenella*	0.1	0.1	CPH130.04	
Acacia aneura	12	6.5		
Amaranthus cuspidifolius	0.1	0.1	CPH091-05	
Aristida contorta	0.1	0.1		
Aristida holathera var. *holathera*	0.1	0.2		
Aristida obscura	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.1		
Brunonia sp. Long hairs (D.E. Symon 2440)	0.1	0.1	CPH130.03	
Calotis hispidula	0.1	0.1	CPH130.0	
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
**Chloris virgata*	0.1	0.2	CPH165-05	
Digitaria ammophila	0.1	0.1		
Digitaria ctenantha	0.1	0.1		
Dysphania kalpari	0.1	0.1		
Dysphania melanocarpa forma *melanocarpa*	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eremophila latrobei subsp. *filiformis*	0.1	1.2		
Euphorbia drummondii	0.1	0.1	CPH041-02	
Fimbristylis dichotoma	0.1	0.1	CPH043-03	
Iseilema membranaceum	0.1	0.1	CPH175.01	
Maireana villosa	0.1	0.1		
Nicotiana rosulata	0.1	0.1	CPH128.05	
Paspalidium rarum	0.1	0.2	CPH048-08	
**Portulaca oleracea*	0.1	0.1		
Psydrax latifolia	0.1	0.3		
Psydrax rigidula	0.1	0.5		
Ptilotus calostachyus	0.1	0.2		
Ptilotus exaltatus	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus gaudichaudii	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.8		
Roebuckiella similis	0.1	0.1		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
**Sonchus oleraceus*	0.1	0.1		
Swainsona canescens	0.1	0.1	CPH130.02	
Swainsona sp. Indet	0.1	0.1		Sterile
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum carnosum	0.1	0.1		

Central Pilbara Hub **Site CPH-131**



Date	20/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	679307 mE;	7444385 mN
	118.750750 E	-23.099550 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aptaneura, Grevillea berryana, Acacia catenulata* subsp. *occidentalis* low open woodland over *Enneapogon polyphyllus, Aristida contorta, Digitaria brownii* low isolated clumps of tussock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	6	6.5		
Acacia catenulata subsp. *occidentalis*	0.5	5		
Acacia pruinocarpa	0.1	1.2		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Digitaria brownii	0.1	0.2		
Enchylaena tomentosa var. *tomentosa*	0.2	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis eriopoda	0.1	0.2		
Eremophila latrobei subsp. *filiformis*	0.1	1.5		
Grevillea berryana	1	7		
Hakea lorea subsp. *lorea*	0.1	3.2		
Hibiscus burtonii	0.1	0.4		
Maireana villosa	0.1	0.2		
Psydrax latifolia	0.1	2.2		
Psydrax suaveolens	0.1	0.7		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Ptilotus schwartzii var. *schwartzii*	0.1	0.2		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.5		
Sida ectogama	0.1	1.3		
Sida fibulifera	0.1	0.1		
Solanum ferocissimum	0.1	0.2		
Triodia melvillei	0.1	0.3		

Central Pilbara Hub **Site CPH-132**



Date	20/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	680631 mE;	7445228 mN
	118.763576 E	-23.091794 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia melvillei* low open hummock grassland with *Acacia aneura, Acacia incurvaneura, Grevillea berryana* low open woodland over *Eremophila latrobei* subsp. *filiformis, Hibiscus burtonii* mid to low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	7	5.8		
Acacia incurvaneura	0.1	5		
Aristida contorta	0.1	0.2		
Aristida obscura	0.1	0.2		
**Bidens bipinnata*	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Digitaria brownii	0.1	0.2		
Enchylaena tomentosa var. *tomentosa*	0.1	0.4		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis eriopoda	0.1	0.3		
Eremophila latrobei subsp. *filiformis*	0.1	1.3		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Grevillea berryana	0.1	7		
Hibiscus burtonii	0.1	1.3		
Maireana villosa	0.1	0.3		
Panicum effusum	0.1	0.3		
Perotis rara	0.1	0.1		
Psydrax latifolia	0.1	0.2		
Psydrax suaveolens	0.1	1.8		
Ptilotus exaltatus	0.1	0.2		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.6		
Senna notabilis	0.1	0.1		
Sida ectogama	0.1	1.4		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum ferocissimum	0.1	0.2		
Triodia melvillei	25	0.5		
Triodia pungens	0.1	0.2		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-133**



Date	20/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	680206 mE;	7444970 mN
	118.759454 E	-23.0941 69 S
Veg Condition	Very Good	
Soil	Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Claypan	
Vegetation	*Eriachne benthamii, Aristida contorta, Themeda triandra* low open tussock grassland with *Senna artemisioides* subsp. × *artemisioides*, *Acacia aneura* mid to tall isolated shrubs with *Corymbia candida* subsp. *candida* low isolated trees.	
Notes	Seen as grey patches or strips on the aerial imagery, adjacent to open areas and Mulga banding.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2		
Acacia aneura	0.1	3.8		
Alternanthera nana	0.1	0.1		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	0.5	0.2		
Aristida inaequiglumis	0.1	0.3		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Blumea tenella	0.1	0.1	CPH133.07	
Centipeda minima subsp. *macrocephala*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
**Chloris virgata*	0.1	0.4	CPH133.05	
Convolvulus clementii	0.1	0.1	CPH133.04	
Corymbia candida subsp. *candida*	0.2	6.8		
Cucumis variabilis	0.1	0		
Dichanthium sericeum subsp. *humilius*	0.1	0.1		
Digitaria ammophila	0.1	0.2		
Digitaria ctenantha	0.1	0.1	CPH148.01	
Enneapogon polyphyllus	0.1	0.2		
Eragrostis cumingii	0.1	0.2		
Eragrostis pergracilis	0.1	0.2		
Eremophila lanceolata	0.1	0.2		
Eriachne benthamii	12	0.5	CPH133.02	
Euphorbia coghlanii	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.1		
Gomphrena affinis subsp. *pilbarensis*	0.1	0.1	CPH133.01	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Goodenia nuda	0.1	0.1		
Goodenia prostrata	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	0.3		
Iseilema membranaceum	0.1	0.2		
Ophioglossum lusitanicum	0.1	0.1		
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus exaltatus	0.1	0.1		
Ptilotus fusiformis	0.1	0.1		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.9		
Rhodanthe propinqua	0.1	0.1	CPH133.06	
Roebuckiella ciliocarpa	0.1	0.1		
Senna artemisioides subsp. x *artemisioides*	0.1	1.6		
Sida fibulifera	0.1	0.1		
Sida platycalyx	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum ferocissimum	0.1	0.3		
Solanum lasiophyllum	0.1	0.3		
Stemodia sp. Indet	0.1	0.2		
Stenopetalum nutans	0.1	0.1		
Themeda triandra	0.1	0.5		
Wahlenbergia tumidifructa	0.1	0.3		

Central Pilbara Hub **Site CPH-138**



Date	19/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	678715 mE;	7445312 mN
	118.744866 E	-23.091243 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* tall sparse shrubland over *Aristida contorta* low sparse tussock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2		
Acacia aptaneura	2	2.8		
Acacia catenulata subsp. *occidentalis*	0.1	2.2		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	8	0.2		
Aristida obscura	0.1	0.2		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Digitaria ammophila	0.1	0.2		
Enchylaena tomentosa var. *tomentosa*	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eremophila lanceolata	0.1	0.1		
Euphorbia biconvexa	0.1	0.1		
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH138.02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.2		
Goodenia nuda	0.1	0.1		
Goodenia prostrata	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	0.4		
Maireana planifolia	0.1	0.2		
Panicum effusum	0.1	0.3		
Portulaca filifolia	0.1	0.2	CPH138.01	
Ptilotus exaltatus	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.4		
Sida fibulifera	0.1	0.2		
Sida platycalyx	0.1	0.2		
Solanum ferocissimum	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Solanum lasiophyllum	0.1	0.3		
Triodia pungens	0.1	0.3		

Central Pilbara Hub **Site CPH-139**



Date	19/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	677674 mE;	7446436 mN
	118.734568 E	-23.081207 S
Veg Condition	Very Good	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aneura*, *Acacia catenulata* subsp. *occidentalis* tall sparse shrubland over *Triodia melvillei* low sparse hummock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aneura	7	5		
Acacia ayersiana	0.1	4		
Acacia catenulata subsp. *occidentalis*	1	6		
Acacia pruinocarpa	0.1	3		
Aristida contorta	0.1	0.2		
Aristida obscura	0.1	0.2		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	0.1	0.6		
Cucumis variabilis	0.1	0		
Digitaria ammophila	0.1	0.2		
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.2		
Eremophila forrestii subsp. *forrestii*	0.1	0.5		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1		
Hibiscus burtonii	0.1	0.5		
Maireana planifolia	0.1	0.3		
Maireana villosa	0.1	0.2		
Panicum effusum	0.1	0.2		
Psydrax suaveolens	0.1	1.4		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	1		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.3		
Senna notabilis	0.1	0.2		
Sida ectogama	0.1	1.1		
Sida fibulifera	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Stenopetalum sp. Indet	0.1	0.6		
Teucrium teucriiflorum	0.1	0.3		
Triodia melvillei	4	0.6		
Triodia pungens	0.1	0.3		

Central Pilbara Hub **Site CPH-140**



Date	19/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	677418 mE;	7445583 mN
	118.732170 E	-23.088935 S
Veg Condition	Very Good	
Soil	Light Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura, Acacia aneura, Grevillea berryana* low open woodland over *Sida ectogama* mid isolated shrubs over *Enneapogon polyphyllus, Eriachne flaccida* low isolated tussock grasses.	
Notes	Drought or poor rainfall over summer sequent years has led to *Acacia* death.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	8	6		
Acacia aptaneura	1	6		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3	CPH142.01	
**Bidens bipinnata*	0.1	0.2		
Boerhavia repleta	0.1	0.1		
Brunonia sp. Long hairs (D.E. Symon 2440)	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Cucumis variabilis	0.1	0		
Digitaria ammophila	0.1	0.3		
Digitaria brownii	0.1	0.3		
Enneapogon polyphyllus	0.2	0.4		
Eragrostis eriopoda	0.1	0.2		
Eremophila lanceolata	0.1	0.2		
Eriachne flaccida	0.2	0.3	CPH140.01	
Eriachne mucronata	0.1	0.2		
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH138.02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1		
Goodenia nuda	0.1	0.1		
Grevillea berryana	0.5	3		
Hibiscus burtonii	0.1	0.5		
Jasminum didymum subsp. *lineare*	0.1	0.3		
Leichhardtia australis	0.1	0		
Maireana villosa	0.1	0.3		
Perotis rara	0.1	0.1		
Portulaca filifolia	0.1	0.1	CPH138.01	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Psydrax latifolia	0.1	1.6		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.4		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.5		
Sida ectogama	0.2	1.4		
Sida fibulifera	0.1	0.1		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.4		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum ferocissimum	0.1	0.3		
Stenopetalum sp. Indet	0.1	0		
Teucrium teucriiflorum	0.1	0.4		
Thyridolepis mitchelliana	0.1	0.2		

Central Pilbara Hub **Site CPH-142**



Date	19/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	677902 mE;	7444789 mN
	118.736986 E	-23.096055 S
Veg Condition	Very Good	
Soil	Light Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	

Vegetation *Acacia aptaneura, Acacia aneura, Grevillea berryana* low open woodland to low isolated clumps of trees (tight banding) over *Triodia melvillei* low sparse hummock grassland to isolated hummock grasses with *Maireana villosa, Ptilotus schwartzii* var. *schwartzii, Ptilotus obovatus* var. *obovatus* low isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aneura	0.5	5		
Acacia aptaneura	8	5.8		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.4		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.2	CPH142.01	
Boerhavia coccinea	0.1	0.1		
Brunonia sp. Long hairs (D.E. Symon 2440)	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Digitaria ammophila	0.1	0.1		
Digitaria brownii	0.1	0.3		
Enchylaena tomentosa var. *tomentosa*	0.1	0.2		
Enneapogon polyphyllus	0.1	0.1		
Eremophila latrobei subsp. *filiformis*	0.1	1.7		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Grevillea berryana	0.1	2.2		
Hibiscus burtonii	0.1	1.2		
Leichhardtia australis	0.1	0		
Maireana villosa	0.2	0.2		
Psydrax latifolia	0.1	1		
Psydrax suaveolens	0.1	1.3		
Ptilotus exaltatus	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3		
Rhagodia eremaea	0.1	0.8		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.6		
Salsola australis	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.1		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.2		
Stenopetalum sp. Indet	0.1	0.1		
Teucrium teucriiflorum	0.1	0.3		
Tribulus suberosus	0.1	0.5		
Triodia melvillei	1	0.5		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-143**



Date	2/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	677245 mE;	7446353 mN
	118.730392 E	-23.082003 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Claypan	
Vegetation	*Aristida contorta, Eragrostis pergracilis* low tussock grassland with *Acacia aptaneura* tall sparse shrubland over *Senna artemisioides* subsp. × *artemisioides*, *Ptilotus obovatus* var. *obovatus* low shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.25		
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)	0.1	0.25		
Acacia aptaneura	3	7		
Alternanthera angustifolia	0.1	0.25	CPH143-10	
Aristida contorta	43	0.3		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3	CPH143-12	
**Bidens bipinnata*	0.1	0.15		
Boerhavia repleta	0.1	0.1		
Bulbostylis turbinata	0.1	0.05	CPH143-07	
Calandrinia ptychosperma	1	0.05	CPH143-09	
Calandrinia pumila	4	0.1	CPH127-13	
Cheilanthes sieberi subsp. *sieberi*	0.1	0.25		
**Chloris virgata*	0.1	0.8	CPH143-05	
Cyperus ?squarrosus	0.1	0.05	CPH143-06	
Dactyloctenium radulans	0.1	0.25		
Digitaria ammophila	0.1	0.3		
Digitaria ctenantha	0.1	0.5		
Dysphania glomulifera subsp. *eremaea*	3	0.1	CPH143-01	
Dysphania kalpari	0.1	0.25		
Enneapogon polyphyllus	0.1	0.25		
Eragrostis cumingii	0.1	0.25		
Eragrostis leptocarpa	0.1	0.3		
Eragrostis pergracilis	1	0.25		
Eremophila lanceolata	0.1	0.4		
Eriachne flaccida	0.1	0.3		
Eriachne pulchella	0.1	0.1		
Euphorbia drummondii	0.1	0.25	CPH127-08	
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.08	CPH143-02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.25		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Fimbristylis dichotoma	3	0.25	CPH127-04	
Gomphrena cunninghamii	0.1	0.1	CPH143-08	
Gomphrena kanisii	0.1	0.25		
Goodenia nuda	0.1	0.25		
Goodenia prostrata	0.1	0.1		
Grevillea berryana	0.1	1.2		
Hibiscus burtonii	0.1	0.4		
Maireana villosa	0.1	0.3		
Panicum effusum	0.1	0.1		
Paspalidium clementii	0.1	0.4		
Paspalidium rarum	0.1	0.1		
Perotis rara	1	0.1		
Polycarpaea corymbosa var. *corymbosa*	0.1	0.1		
Polygala isingii	0.1	0.02	CPH143-03	
**Portulaca oleracea*	0.1	0.05		
Psydrax suaveolens	0.1	0.7		
Pterocaulon sphacelatum	0.1	0.1		
Ptilotus calostachyus	0.1	0.3		
Ptilotus exaltatus	0.1	0.4		
Ptilotus gaudichaudii	0.1	0.4		
Ptilotus helipteroides	0.1	0.25		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus polystachyus	0.1	0.6		
Ptilotus schwartzii var. *schwartzii*	0.1	0.5		
Rhodanthe propinqua	0.1	0.25	CPH129-02	
Roebuckiella similis	0.1	0.25	CPH127-03	
Senna artemisioides subsp. x *artemisioides*	0.5	0.4	CPH143-11	
Senna notabilis	0.1	0.25		
Sida platycalyx	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.25		
Solanum lasiophyllum	0.1	0.4		
Stenopetalum nutans	0.25	0.25	CPH127-02	
Synaptantha tillaeacea var. *tillaeacea*	0.1	0.02	CPH143-13	Prostrate
Tripogonella loliiformis	0.1	0.25		

Central Pilbara Hub **Site CPH-144**



Date	19/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	675757 mE;	7445441 mN
	118.715979 E	-23.090397 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia pungens, Triodia vanleeuwenii* low hummock grassland with *Acacia marramamba, Senna glutinosa* subsp. × *luerssenii, Acacia aptaneura* mid to tall sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	0.1	2		
Acacia dictyophleba	0.1	1		
Acacia hamersleyensis	0.1	1.4		
Acacia kempeana	0.1	0.4		
Acacia marramamba	2	1.6		
Acacia pruinocarpa	0.1	1.2		
Acacia sibirica	0.1	0.6		
Capparis lasiantha	0.1	0.8		
Cassytha capillaris	0.1	0		
Codonocarpus cotinifolius	0.1	0.3		
Duperreya commixta	0.1	0		
Eremophila compacta	0.1	0.4		
Eremophila lachnocalyx	0.1	0.6		
Eremophila latrobei subsp. *latrobei*	0.1	1.5		
Eucalyptus leucophloia subsp. *leucophloia*	2	5.5		
Goodenia stobbsiana	0.1	0.2		
Grevillea berryana	0.1	1.3		
Indigofera monophylla	0.1	0.3		
Psydrax suaveolens	0.1	1.1		
Ptilotus rotundifolius	0.1	0.5		
Senna artemisioides subsp. *oligophylla*	0.1	0.3		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Senna glutinosa subsp. x *luerssenii*	0.2	1.7		
Seringia exastia	0.1	0.4		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.3		
Solanum lasiophyllum	0.1	0.5		
Triodia pungens	50	0.4		
Triodia vanleeuwenii	2	0.3		

Central Pilbara Hub **Site CPH-145**



Date	18/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	675829 mE;	7444849 mN
	118.716745 E	-23.095732 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aneura, Acacia pruinocarpa* low woodland over *Triodia pungens* low isolated clumps of hummock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	14	6		
Acacia catenulata subsp. *occidentalis*	0.1	4		
Acacia pruinocarpa	2	6		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.4		
Aristida obscura	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Corymbia deserticola subsp. *deserticola*	0	4.5		
Digitaria ammophila	0.1	0.2		
Enneapogon polyphyllus	0.1	0.1		
Eremophila forrestii subsp. *forrestii*	0.1	0.1		
Eremophila latrobei subsp. *filiformis*	0.1	1		
Hibiscus burtonii	0.1	0.4		
Maireana villosa	0.1	0.2		
Psydrax suaveolens	0.1	2		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.6	CPH145.01	
Senna glaucifolia	0.1	1.8		
Sida ectogama	0.1	1.1		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.5		
Solanum ferocissimum	0.1	0.2		
Stenopetalum sp. Indet	0.1	0.4		
Triodia pungens	0.5	0.4		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-146**



Date	18/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	674544 mE;	7444537 mN
	118.704239 E	-23.098687 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Eucalyptus gamophylla*, *Corymbia deserticola* subsp. *deserticola* low isolated mallee trees over *Senna glutinosa* subsp. *glutinosa*, *Senna glutinosa* subsp. × *luerssenii*, *Acacia tenuissima* mid isolated shrubs.	
Notes	On brown clay loam on undulating low hills.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	0.4		
Acacia aptaneura	0.1	1.2		
Acacia bivenosa	0.1	1.2		
Acacia dictyophleba	0.1	1.6		
Acacia pruinocarpa	0.1	0.6		
Acacia sp. Indet	0.1	0.5		
Acacia tenuissima	0.1	1.4		
Codonocarpus cotinifolius	0.1	1.3		
Corymbia deserticola subsp. *deserticola*	0.2	3.8		
Digitaria ammophila	0.1	0.2		
Duperreya commixta	0.1	0		
Eremophila longifolia	0.1	0.6		
Eucalyptus gamophylla	0.5	3		
Hakea chordophylla	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.9		
Senna glutinosa subsp. *glutinosa*	0.1	1.6		
Senna glutinosa subsp. x *luerssenii*	0.1	1.7		
Seringia exastia	0.1	0.4		
Triodia pungens	0.2	0.4		
Triodia vanleeuwenii	55	0.3		

Central Pilbara Hub **Site CPH-147**



Date	18/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	673643 mE;	7444625 mN
	118.695438 E	-23.097983 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aneura, Acacia catenulata* subsp. *occidentalis, Acacia aptaneura, Acacia ayersiana* tall open shrubland over *Triodia pungens* low open hummock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	20	5.6		
Acacia aptaneura	3	5		
Acacia ayersiana	0.1	5		
Acacia catenulata subsp. *occidentalis*	0.1	2.4		
Acacia pruinocarpa	0.2	6		
Amphipogon sericeus	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Digitaria ammophila	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis eriopoda	0.1	0.3		
Eremophila forrestii subsp. *forrestii*	0.1	1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Hibiscus burtonii	0.1	0.4		
Psydrax suaveolens	0.1	1.8		
Senna artemisioides subsp. x *artemisioides*	0.1	1.2	CPH147.01	
Senna glaucifolia	0.1	0.1		
Senna glutinosa subsp. x *luerssenii*	0.1	8		
Sida cardiophylla	0.1	0.2		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.4		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.7		
Solanum lasiophyllum	0.1	0.4		
Triodia melvillei	0.1	0.5		
Triodia pungens	28	0.4		
Triodia vanleeuwenii	0.1	0.2		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-148**



Date	18/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	670986 mE;	7445246 mN
	118.669430 E	-23.092659 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia catenulata* subsp. *occidentalis* tall open shrubland over *Eremophila fraseri* subsp. *fraseri* mid isolated shrubs over *Digitaria brownii* low isolated clumps of tussock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	0.1	3.3		
Acacia aptaneura	0.2	2.5		
Acacia catenulata subsp. *occidentalis*	25	5		
Acacia pruinocarpa	0.1	3.2		
Anthobolus leptomerioides	0.1	1		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.5		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.4		
Aristida obscura	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Boerhavia repleta	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.5	0.3		
Digitaria ctenantha	0.1	0.2	CPH148.01	
Enneapogon polyphyllus	0.1	0.2		
Eremophila fraseri subsp. *fraseri*	0.5	1.2		
Eremophila latrobei subsp. *filiformis*	0.1	6		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.1		
Grevillea berryana	0.1	2.8		
Hibiscus burtonii	0.1	0.6		
Isotropis iophyta	0.1	0.8		
Panicum effusum	0.1	0.3		
Paspalidium rarum	0.1	0.1	CPH153.03a	
Perotis rara	0.1	0.1		
Psydrax suaveolens	0.1	3		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.9		
Senna glaucifolia	0.1	1.6		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida sp. Indet	0.1	0.4		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum lasiophyllum	0.1	0.3		
Triodia pungens	0.1	0.2		
Tripogonella loliiformis	0.1	0.1		

Central Pilbara Hub **Site CPH-149**



Date	19/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	670117 mE;	7446389 mN
	118.660826 E	-23.082428 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Gully	
Vegetation	*Triodia pungens* mid open hummock grassland with *Acacia aptaneura* low open woodland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Senna glutinosa* subsp. *glutinosa* tall isolated shrubs.	
Notes	Quadrat more of a 50x50, bearing 120.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	1.5		
Acacia aptaneura	2	5		
Acacia bivenosa	0.1	1.6		
Acacia catenulata subsp. *occidentalis*	0.1	5	CPH149-04	
Acacia marramamba	0.1	3.5	CPH149-03	
Acacia pruinocarpa	0.1	2		
Acacia pyrifolia var. *morrisonii*	0.1	3	CPH149-01	
Amyema hilliana	0.1	0.1		
Aristida holathera var. *holathera*	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Aristida obscura	0.1	0.2		
**Bidens bipinnata*	0.1	0.1		
Capparis lasiantha	0.1	0.5		
Cheilanthes brownii	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Codonocarpus cotinifolius	0.1	0.5		
Corymbia ferriticola	0.1	3		
Cucumis variabilis	0.1	1		
Cymbopogon ambiguus	0.1	0.3		
Digitaria ammophila	0.1	0.3		
Digitaria brownii	0.1	0.3	Cph048.02	
Dodonaea pachyneura	0.1	0.6		
Duperreya commixta	0.5	0.1		
Dysphania sp. Indet	0.1	0.1		Sterile
Enchylaena tomentosa var. *tomentosa*	0.1	0.6		
Enneapogon caerulescens	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eremophila latrobei subsp. *latrobei*	0.1	1.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Eriachne mucronata	0.5	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	5		
Euphorbia drummondii	0.1	0.2	CPH041-02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Hibiscus burtonii	0.1	0.3		
Hibiscus coatesii	0.1	0.3		
Maireana villosa	0.1	0.3		
Paraneurachne muelleri	0.1	0.3		
Paspalidium rarum	0.1	0.1	CPH048-08	
Psydrax suaveolens	0.1	0.5		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Ptilotus polystachyus	0.1	0.2	Cph056.06	
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1		
Salsola australis	0.1	0.3		Dead
Santalum lanceolatum	0.1	4		
Senna ferraria	0.1	1.2		
Senna glutinosa subsp. *glutinosa*	0.1	3		
Senna glutinosa subsp. x *luerssenii*	0.1	0.9		
Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	0.1	0.3		
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	0.1	0.3		
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.5		
Teucrium teucriiflorum	0.1	0.5		
Triodia pungens	15	0.5		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-150**



Date	19/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	670117 mE;	7446389 mN
	118.660826 E	-23.082428 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia pungens* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia arida*, *Senna glutinosa* subsp. *glutinosa*, *Acacia pyrifolia* var. *morrisonii* mid to low sparse shrubland to isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia arida	1	1.6		
Acacia bivenosa	0.1	0.6		
Acacia pruinocarpa	0.1	1.8		
Acacia pyrifolia var. *morrisonii*	0.1	3.5		
Amphipogon sericeus	0.1	0.2		
Aristida contorta	0.1	0.1		
Dodonaea coriacea	0.1	0.8		
Eriachne mucronata	0.1	0.2		
Eucalyptus leucophloia subsp. *leucophloia*	1	5		
Goodenia microptera	0.1	0.1		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.2		
Hakea lorea subsp. *lorea*	0.1	1.2		
Paraneurachne muelleri	0.1	0.2		
Ptilotus calostachyus	0.1	0.3		
Ptilotus exaltatus	0.1	0.1		
Schizachyrium fragile	0.1	0.1		
Senna glutinosa subsp. *glutinosa*	0.1	1.9		
Senna glutinosa subsp. *pruinosa*	0.1	0.5		
Senna glutinosa subsp. x *luerssenii*	0.1	0.8		
Sida ?sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.2	CPH150.01	
Sida sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.3	CPH17-01	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.2	CPH082-01	
Solanum lasiophyllum	0.1	0.3		
Triodia pungens	45	0.4		
Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)	0.1	0.2		
Triodia vanleeuwenii	0.1	0.1		

Central Pilbara Hub Site CPH-151



Date	19/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	670760 mE;	7447740 mN
	118.666948 E	-23.070158 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia melvillei* mid hummock grassland with *Acacia aptaneura, Acacia pruinocarpa, Acacia catenulata* subsp. *occidentalis* low open woodland over *Acacia tenuissima* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2		
Acacia aptaneura	1	4.5		
Acacia catenulata subsp. *occidentalis*	0.1	4.5		
Acacia pruinocarpa	1	4.5		
Acacia tenuissima	0.1	2.5		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.3		
Aristida obscura	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.1	0.4	CPH048.02	
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eriachne pulchella subsp. *dominii*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH043-03	
Hibiscus burtonii	0.1	0.2		
Maireana villosa	0.1	0.2		
Panicum effusum	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Paspalidium clementii	0.1	0.2	CPH169.06	
Perotis rara	0.1	0.1		
Psydrax suaveolens	0.1	1.7		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.5		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.2		
Solanum lasiophyllum	0.1	0.6		
Teucrium teucriiflorum	0.1	0.6		
Themeda triandra	0.1	0.8		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Triodia melvillei	35	0.6		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-152**



Date	19/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	671383 mE;	7446269 mN
	118.673199 E	-23.083379 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii, Triodia pungens* low hummock grassland with *Acacia marramamba, Eremophila lachnocalyx* mid to low isolated clumps of shrubs with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	0.8		
Acacia aptaneura	0.1	0.9		
Acacia bivenosa	0.1	0.5		
Acacia dictyophleba	0.1	0.7		
Acacia kempeana	0.1	1.5		
Acacia maitlandii	0.1	0.4		
Acacia marramamba	0.5	1.2	CPH149-03	
Acacia pruinocarpa	0.1	1.5		
Acacia tenuissima	0.1	0.4		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.4		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.3		
Codonocarpus cotinifolius	0.1	0.6		
Cymbopogon ambiguus	0.1	0.2		
Digitaria ammophila	0.1	0.2		
Dodonaea coriacea	0.1	0.4		
Duperreya commixta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eremophila lachnocalyx	0.1	0.5		
Eremophila latrobei subsp. *filiformis*	0.1	0.4		
Eremophila latrobei subsp. *latrobei*	0.1	0.6		
Eriachne mucronata	0.1	0.2		
Eriachne pulchella subsp. *dominii*	0.1	0.1		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	3		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Goodenia stobbsiana	0.1	0.2		
Goodenia triodiophila	0.1	0.2		
Indigofera monophylla	0.1	0.3		
Maireana villosa	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Maytenus sp. Mt Windell (S. van Leeuwen 846)	0.1	0.8		
Paraneurachne muelleri	0.1	0.3		
Ptilotus calostachyus	0.1	0.7		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus rotundifolius	0.1	0.5		
Scaevola acacioides	0.1	0.9	CPH152-02	
Schizachyrium fragile	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.2		
Senna glutinosa subsp. *pruinosa*	0.1	1.2		
Senna glutinosa subsp. x *luerssenii*	0.1	0.6		
Senna stricta	0.1	0.3	CPH152-01	
Sida ?sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.3		
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.4		
Themeda triandra	0.1	0.3		
Triodia pungens	5	0.4		
Triodia vanleeuwenii	60	0.2		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-153**



Date	18/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	671186 mE;	7447568 mN
	118.671131 E	-23.071673 S
Veg Condition	Very Good	
Soil	Light Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Claypan	
Vegetation	*Themeda triandra* low tussock grassland with *Acacia aptaneura* low isolated trees over *Eremophila lanceolata* low isolated shrubs.	
Notes	Low rainfall over subsequent years may have resulted in loss of mulga trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.1		
Abutilon otocarpum	0.1	0.2		
Acacia aptaneura	1	5.8		
Alternanthera denticulata var. denticulata	0.1	0.1		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.4	CPH153.01b	
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.4	CPH153.01a	
Arivela viscosa	0.1	0.2		
Boerhavia repleta	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Chrysopogon fallax	0.1	0.4		
Codonocarpus cotinifolius	0.1	0.3		
Convolvulus clementii	0.1	0	CPH153.02	
Cucumis variabilis	0.1	0.1		
Dactyloctenium radulans	0.1	0.1		
Digitaria ammophila	0.1	0.3		
Enneapogon lindleyanus	0.1	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eremophila lanceolata	0.2	0.3		
Eremophila longifolia	0.1	1.4		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Maireana villosa	0.1	0.2		
Panicum effusum	0.5	0.2		
Paspalidium clementii	0.1	0.2	CPH153.03b	
Perotis rara	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus exaltatus	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Salsola australis	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida fibulifera	0.1	0.2		
Solanum lasiophyllum	0.1	0.3		
Themeda triandra	30	0.4		
Trachymene oleracea subsp. *oleracea*	0.1	0.1		
Urochloa occidentalis var. *ciliata*	0.1	0.2	CPH153.04	
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-154**



Date	17/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	672027 mE;	7450070 mN
	118.679049 E	-23.048986 S
Veg Condition	Very Good	
Soil	Light Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Aristida contorta, Chrysopogon fallax, Aristida inaequiglumis* low open tussock grassland with *Acacia aptaneura* low isolated trees over *Sida* sp. L (A.M. Ashby 4202), *Sida fibulifera, Sida platycarpa* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.3		
Acacia aptaneura	0.1	4		
Alternanthera nana	0.1	0.2		
Aristida contorta	12	0.2		
Aristida inaequiglumis	0.1	0.5		
Aristida jerichoensis var. *subspinulifera* (P3)	0.3	0.1		
Aristida obscura	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Calandrinia sp. Indet	0.1	0.1		Sterile
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
**Chloris virgata*	0.1	0.1		
Chrysopogon fallax	0.1	0.5		
Cucumis variabilis	0.1	0.1		
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum	0.1	0.2	CPH154.02	
Digitaria ammophila	0.1	0.3		
Dysphania glomulifera subsp. *eremaea*	0.1	0.1	CPH154.06	
Enneapogon caerulescens	0.1	0.2		
Enneapogon polyphyllus	0.1	0.1		
Eragrostis pergracilis	0.1	0.1	CPH169.12	
Eremophila lanceolata	0.1	0.2		
Eremophila longifolia	0.1	0.6		
Eriachne mucronata	0.1	0.4	CPH048-07	
Euphorbia biconvexa	0.1	0.2		
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH169.07	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	1	0.2	CPH043-03	
Gomphrena kanisii	0.1	0.2		
Gomphrena lanata	0.1	0.1	CPH169.08	
Goodenia nuda	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Goodenia prostrata	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	0.7		
Ophioglossum lusitanicum	0.1	0.1		
Panicum decompositum	0.1	0.1		
Panicum effusum	0.1	0.1	CPH154.01	
Paspalidium rarum	0.1	0.1	CPH154.05	
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.4		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.2		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.9		
Roebuckiella similis	0.1	0.1		
Salsola australis	0.1	0.2		
Sclerolaena tetragona	0.1	0.1	CPH154.03	
Senna notabilis	0.1	0.2		
Sida fibulifera	0.1	0.2		
Sida platycalyx	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.1		
Stenopetalum nutans	0.1	0.1	CPH154.04	
Teucrium teucriiflorum	0.1	0.5		
Themeda triandra	0.1	0.5		
**Tribulus terrestris*	0.1	0.1		
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-155**



Date	17/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	671119 mE;	7449523 mN
	118.670254 E	-23.054022 S
Veg Condition	Excellent	
Soil	Light Clay	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia melvillei, Triodia pungens* hummock grassland with *Acacia aptaneura, Acacia pachyacra, Acacia pruinocarpa* tall sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.3		
Acacia aneura	0.1	2.5	CPH155-02	
Acacia aptaneura	2	3	CPH155-01	
Acacia dictyophleba	0.1	0.3		
Acacia pachyacra	1	3.5		
Acacia pruinocarpa	1	4		
Alternanthera nana	0.1	0.1		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.4		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.2		
Aristida obscura	0.1	0.2		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Cymbopogon obtectus	0.1	0.4		
Digitaria ammophila	0.1	0.2		
**Digitaria ciliaris*	0.1	0.2		
Duperreya commixta	0.1	0.1		
Enchylaena tomentosa var. *tomentosa*	0.1	0.1		
Enneapogon polyphyllus	0.1	0.4		
Eriachne mucronata	0.1	0.3	CPH048-07	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Goodenia microptera	0.1	0.2		
Hibiscus burtonii	0.1	0.1		
Hibiscus coatesii	0.1	0.1	CPH155-04	
Maireana villosa	0.1	0.3		
Paraneurachne muelleri	0.1	0.3		
Psydrax suaveolens	0.1	2.1		
Ptilotus exaltatus	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.8		
Salsola australis	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna notabilis	0.1	0.1		
Seringia exastia	0.1	0.4		
Sida platycalyx	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.4	CPH155-03	
Solanum ferocissimum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Teucrium teucriiflorum	0.1	0.4		
Themeda triandra	0.1	0.6		
Triodia melvillei	30	0.5		
Triodia pungens	25	0.4		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-156**



Date 17/06/2022
Described by Clinton van den Bergh, Ché Parker
Type Quadrat 50m x 50m
Location MGA Zone 50
672238 mE; 7450636 mN
118.681052 E -23.043854 S
Veg Condition Excellent
Soil Light Medium Clay
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Claypan
Vegetation *Aristida contorta, Eriachne flaccida, Digitaria ammophila* low sparse tussock grassland with *Fimbristylis dichotoma* low sparse sedgeland with *Acacia aptaneura* low isolated trees.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	0.1	4.5		
Alternanthera nana	0.1	0.2		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	8	0.2		
Aristida inaequiglumis	0.1	0.3		
Bergia perennis	0.1	0.1	CPH156.02	
Boerhavia repleta	0.1	0.1	CPH159.01	
Calandrinia sp. Indet	0.1	0.1		Sterile
**Chloris virgata*	0.1	0.2		
Chrysopogon fallax	0.1	0.4		
Convolvulus clementii	0.1	0.1	CPH156.03	
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum	0.1	0.2	CPH154.02	
Digitaria ammophila	0.1	0.2		
Dysphania glomulifera subsp. *eremaea*	0.1	0.1	CPH143-01	
Enneapogon polyphyllus	0.1	0.1		
Enteropogon ramosus	0.1	0.3		
Eragrostis pergracilis	0.1	0.1	CPH156.06 CPH169.12	
Eriachne flaccida	0.1	0.3	CPH156.01	
Euphorbia drummondii	0.1	0.1	CPH041-02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	2	0.1	CPH043-03	
Gomphrena kanisii	0.1	0.2		
Goodenia nuda	0.1	0.1		
Goodenia prostrata	0.1	0.1		
Ipomoea muelleri	0.1	0.1		
Iseilema eremaeum	0.1	0.1	CPH066-03	
Josephinia eugeniae	0.1	0.1	CPH156.08	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Lepidium echinatum	0.1	0.1		
Marsilea sp. Indet	0.1	0.1		Sterile
Ophioglossum lusitanicum	0.1	0.1		
Paspalidium rarum	0.1	0.1	CPH154.05	
Peripleura arida	0.1	0.1	CPH156.04	
Pluchea dunlopii	0.1	0.3	CPH156.07	
**Portulaca oleracea*	0.1	0.1		
Ptilotus exaltatus	0.1	0.3		
Ptilotus gaudichaudii	0.1	0.1		
Ptilotus helipteroides	0.1	0.1	CVT4.01	
Ptilotus polystachyus	0.1	0.4	CPH056.06	
Ptilotus roei	0.1	0.1		
Senna notabilis	0.1	0.1		
Sida fibulifera	0.1	0.1	CPH156.05	
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Stenopetalum nutans	0.1	0.2	CPH154.04	
Themeda triandra	0.1	0.5		

Central Pilbara Hub **Site CPH-157**



Date 1/05/2022
Described by Emma Marsh, P-L. de Kock
Type Quadrat 50m x 50m
Location MGA Zone 50
672358 mE; 7451251 mN
118.682150 E -23.038292 S
Veg Condition Excellent
Soil Clay Loam
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Stony Plain
Vegetation *Acacia aptaneura* low open woodland over *Aristida obscura, Chrysopogon fallax* mid sparse tussock grassland with *Ptilotus obovatus* var. *obovatus, Maireana planifolia* x *villosa* low sparse shrubland.
Notes Habitat is Clay Plain. Soil dark red brown.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	38	9		
Alternanthera nana	0.1	0.1		
Aristida contorta	0.1	0.25		
Aristida inaequiglumis	0.1	0.6	CPH157-03	
Aristida obscura	6	0.4		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.25		
Chrysopogon fallax	0.5	1		
Cucumis variabilis	0.1	0.4		
Digitaria ammophila	0.1	0.1		
Dysphania kalpari	0.1	0.25		
Enneapogon polyphyllus	0.1	0.4		
Eremophila lanceolata	0.1	0.25		
Eulalia aurea	0.1	0.5		
Euphorbia drummondii	0.1	0.15	CPH157-02	
Fimbristylis dichotoma	0.1	0.25	CPH127-04	
Hibiscus burtonii	0.1	0.6		
Maireana planifolia x *villosa*	0.25	0.5	CPH-157-01	
Maireana villosa	0.1	0.4		
Nicotiana sp. Indet	0.1	0.8		Dead
Panicum effusum	0.1	0.25		
Peripleura sp. Indet	0.1	0.1		IM; sterile
Polycarpaea corymbosa var. *corymbosa*	0.1	0.25		
Psydrax suaveolens	0.1	2		
Pterocaulon sphacelatum	0.1	0.8		
Ptilotus exaltatus	0.1	0.4		
Ptilotus obovatus var. *obovatus*	1	0.5		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.25		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Solanum horridum	0.1	0.4		
Streptoglossa sp. Indet	0.1	94		IM; dead
Teucrium teucriiflorum	0.1	1		
Themeda triandra	0.1	1	CPH157-01	
Triodia melvillei	0.5	0.5		

Central Pilbara Hub **Site CPH-158**



Date	17/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	671083 mE;	7450196 mN
	118.669830 E	-23.047948 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* mid hummock grassland with *Acacia aptaneura, Acacia pachyacra* tall isolated shrubs over *Themeda triandra, Aristida inaequiglumis* mid isolated tussock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.4		
Acacia aneura	0.1	2.4	CPH155-02	
Acacia aptaneura	1	3	CPH155-01	
Acacia bivenosa	0.1	0.4		
Acacia dictyophleba	0.1	2.5		
Acacia pachyacra	0.1	2		
Acacia pruinocarpa	0.1	1.6		
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.4		
Aristida inaequiglumis	0.1	0.6		
Aristida obscura	0.1	0.3		
Chrysopogon fallax	0.1	0.5		
Codonocarpus cotinifolius	0.1	2.5		
Cymbopogon ambiguus	0.1	0.6		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.1	0.3		
Duperreya commixta	0.1	0.1		
Enchylaena tomentosa var. *tomentosa*	0.1	0.2		
Enneapogon polyphyllus	0.1	0.1		
Eremophila latrobei subsp. *filiformis*	0.1	1.6		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	1.8		
Eulalia aurea	0.1	0.3		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Hibiscus burtonii	0.1	0.3		
Maireana villosa	0.1	0.4		
Panicum effusum	0.1	0.3	CPH154.01	
Paraneurachne muelleri	0.1	0.3		
Psydrax rigidula	0.1	1		
Pterocaulon serrulatum	0.1	0.8		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Ptilotus polystachyus	0.1	0.4	CPH056.06	
Senna notabilis	0.1	0.2		
Seringia exastia	0.1	0.5		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum cleistogamum	0.1	0.1		
Solanum ferocissimum	0.1	0.1		
Solanum lasiophyllum	0.1	0.2		
Themeda triandra	0.1	0.6		
Triodia melvillei	0.1	0.4		
Triodia pungens	40	0.7		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-160**



Date	17/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	673250 mE;	7452964 mN
	118.690664 E	-23.022732 S
Veg Condition	Excellent	
Soil	Light Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Themeda triandra* mid to low tussock grassland with *Acacia aptaneura* low open woodland.	
Notes	Mulga plain with clay soil.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2		
Acacia aptaneura	2	8		
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3		
Aristida obscura	0.1	0.2		
**Bidens bipinnata*	0.1	0.2		
Boerhavia sp. Indet	0.1	0.1		Sterile
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	0.1	0.5		
Codonocarpus cotinifolius	0.1	0.3		
Convolvulus clementii	0.1	0	CPH160-02 CPH179.02	
Cucumis variabilis	0.1	0		
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum	0.1	0.3	CPH160-01	
Digitaria ammophila	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eremophila lanceolata	0.1	0.2		
Eriachne sp. Indet	0.1	0.5		Sterile
Euphorbia biconvexa	0.1	0.1		
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH199-01	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.1	CPH060-01	
Goodenia prostrata	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	0.4		
Iseilema membranaceum	0.1	0.1	CPH199-02	
Maireana villosa	0.1	0.3		
Ophioglossum lusitanicum	0.1	0.1		
Perotis rara	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Pterocaulon sphacelatum	0.1	0.5		
Ptilotus astrolasius	0.1	0.3		
Ptilotus exaltatus	0.1	0.2		
Ptilotus fusiformis	0.1	0.2		
Ptilotus roei	0.1	0.1		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.3		
Roebuckiella similis	0.1	0.1	CPH179.04	
Salsola australis	0.1	0.1		
Sida fibulifera	0.1	0.2		
Sida platycalyx	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.1		
Teucrium teucriiflorum	0.1	0.3	CPH179.07	
Themeda triandra	60	0.5		
Tripogonella loliiformis	0.1	0.1	CPH041-01	

Central Pilbara Hub **Site CPH-161**



Date	17/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	671849 mE;	7452417 mN
	118.677057 E	-23.027820 S
Veg Condition	Very Good	
Soil	Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* low open woodland over *Aristida contorta* low isolated clumps of tussock grasses with *Maireana planifolia* low isolated chenopod shrubs.	
Notes	Small ironstone rocks on clay.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2		
Acacia aptaneura	1	6		
Aristida contorta	0.5	0.2		
Aristida inaequiglumis	0.1	0.4		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.4		
**Bidens bipinnata*	0.1	0.3		
Boerhavia repleta	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	0.1	0.6		
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum	0.1	0.2	CPH160-01	
Digitaria ammophila	0.1	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis xerophila	0.1	0.3	CPH-161	
Eremophila lanceolata	0.1	0.2		
Eriachne benthamii	0.1	0.4	CPH165-04	
Eulalia aurea	0.1	0.3		
Euphorbia biconvexa	0.1	0.2		
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH199-01	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.2	CPH060-01	
Goodenia nuda	0.1	0.1		
Goodenia prostrata	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	2.5		
Hibiscus burtonii	0.1	0.2		
Iseilema membranaceum	0.1	0.1	CPH199-02	
Maireana planifolia	0.5	0.3		
Maireana sp. Indet	0.1	0.2	CPH178-02	
Maireana villosa	0.1	0.2		
**Malvastrum americanum*	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Melhania oblongifolia	0.1	0.2		
Ophioglossum lusitanicum	0.1	0.1		
Panicum effusum	0.1	0.3		
Paspalidium rarum	0.1	0.1	CPH048-08	
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus fusiformis	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus roei	0.1	0.1		
Rhagodia eremaea	0.1	0.5		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1		
Roebuckiella similis	0.1	0.2	CPH179.04	
Salsola australis	0.1	0.1		
Sclerolaena cornishiana	0.1	0.2	CPH178-04	
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum lasiophyllum	0.1	0.1		
Teucrium teucriiflorum	0.1	0.4		
Themeda triandra	0.1	0.4		
Tragus australianus	0.1	0.1		
Tribulus astrocarpus	0.1	0.1		
Tribulus sp. Indet	0.1	0.1	CPH178-03	
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Urochloa occidentalis var. *ciliata*	0.1	0.2	CPH168-01	
Vincetoxicum lineare	0.1	0.3		

Central Pilbara Hub **Site CPH-163**



Date	17/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	672704 mE;	7452283 mN
	118.685408 E	-23.028934 S
Veg Condition	Excellent	
Soil	Light Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* low open woodland over *Aristida contorta, Chrysopogon fallax* mid to low sparse tussock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cryptopetalum	0.1	0.3	CPH163-02	
Abutilon otocarpum	0.1	0.3		
Acacia aptaneura	8	3		
Aristida contorta	3	0.2		
Aristida inaequiglumis	0.1	0.4		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3	CPH163-01	
**Bidens bipinnata*	0.1	0.1		
Boerhavia sp. Indet	0.1	0.1		Sterile
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
**Chloris virgata*	0.1	0.1	CPH165-05	
Chrysopogon fallax	0.5	0.6		
Dactyloctenium radulans	0.1	0.1		
Digitaria ammophila	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eremophila lanceolata	0.1	0.2		
Eriachne pulchella	0.1	0.1		
Euphorbia drummondii	0.1	0.1	CPH041-02	
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH199-01	
Euphorbia sp. Indet	0.1	0.2		Sterile
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH060-01	
Goodenia nuda	0.1	0.1		
Goodenia prostrata	0.1	0.1		
Iseilema membranaceum	0.1	0.1	CPH199-02	
Maireana planifolia	0.1	0.3		
Maireana villosa	0.1	0.2		
Ophioglossum lusitanicum	0.1	0.1		
Panicum effusum	0.1	0.2		
Paspalidium rarum	0.1	0.1	CPH048-08	
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)	0.1	0.1	CPH165-02	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Perotis rara	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus fusiformis	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Rhagodia eremaea	0.1	1		
Roebuckiella similis	0.1	0.1	CPH179.04	
Sclerolaena cornishiana	0.1	0.3	CPH066-06	
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Solanum ferocissimum	0.1	0.1		
Stenopetalum nutans	0.1	0.1	CPH165-01	
Tragus australianus	0.1	0.1		
Tribulus astrocarpus	0.1	0.1	CPH176.05	
Tribulus sp. Indet	0.1	0.1	CPH178-03	
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-164**



Date 17/06/2022
Described by Emily Eakin-Busher, Emma Marsh
Type Quadrat 50m x 50m
Location MGA Zone 50
672127 mE; 7451948 mN
118.679820 E -23.032020 S
Veg Condition Excellent
Soil Medium Clay
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Hardpan Plain
Vegetation *Aristida contorta* low isolated clumps of tussock grasses with *Acacia aptaneura* low isolated trees (in landscape) over *Acacia aptaneura* low isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	0.1	0.4		
Aristida contorta	3	0.2		
Aristida inaequiglumis	0.1	0.3		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3		
Boerhavia sp. Indet	0.1	0.1		Sterile
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	0.1	0.3		
Convolvulus clementii	0.1	0.1	CPH164-02	
Dactyloctenium radulans	0.1	0.1		
Digitaria ammophila	0.1	0.2		
Enneapogon caerulescens	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eremophila lanceolata	0.1	0.2		
Eriachne pulchella subsp. *dominii*	0.1	0.1		
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH199-01	
Fimbristylis dichotoma	0.1	0.2	CPH060-01	
Goodenia prostrata	0.1	0.1		
Hibiscus burtonii	0.1	0.3		
Lepidium echinatum	0.1	0.1	CPH164-01	
Maireana sp. Indet	0.1	0.2	CPH178-02	
Maireana villosa	0.1	0.2		
Ophioglossum lusitanicum	0.1	0.1		
Panicum effusum	0.1	0.2		
Paspalidium rarum	0.1	0.1	CPH048-08	
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.2		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus roei	0.1	0.1		
Salsola australis	0.1	0.2		
Sclerolaena tetragona	0.1	0.2	CPH176.04	
Sida fibulifera	0.1	0.1		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Tragus australianus	0.1	0.1		
Tribulus astrocarpus	0.1	0.1	CPH176.05	
Tribulus sp. Indet	0.1	0.1	CPH178-03	
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vittadinia eremaea	0.1	0.2	CPH164-01	

Central Pilbara Hub **Site CPH-165**



Date	17/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	672145 mE;	7453125 mN
	118.679864 E	-23.021392 S
Veg Condition	Excellent	
Soil	Light Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Themeda triandra* tall closed tussock grassland with *Hakea lorea* subsp. *lorea*, *Eucalyptus xerothermica* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	0.1	0.2		
Alternanthera nana	0.1	0.1		
Amaranthus cuspidifolius	0.1	0.1	Cph180.01	
Aristida contorta	0.1	0.2		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3		
Aristida obscura	0.1	0.3		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Blumea tenella	0.1	0.1	CPH165-03	
Boerhavia sp. Indet	0.1	0.1		Sterile
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
**Chloris virgata*	0.1	0.4	CPH165-05	
Chrysopogon fallax	0.1	0.6		
Convolvulus clementii	0.1	0	CPH160-02 CPH179.02	
Cucumis variabilis	0.1	0		
Dactyloctenium radulans	0.1	0.1		
Dendrophyllanthus erwinii	0.1	0.1		
Dichanthium sericeum	0.1	0.2	CPH160-01	
Digitaria ammophila	0.1	0.2		
Digitaria ctenantha	0.1	0.2		
Dysphania glomulifera subsp. *eremaea*	0.1	0.1	CPH165-06	
Dysphania melanocarpa forma *melanocarpa*	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eragrostis cumingii	0.1	0.1		
Eremophila lanceolata	0.1	0.2		
Eriachne benthamii	0.5	0.1	CPH165-04	
Eriachne pulchella	0.1	0.1		
Euphorbia biconvexa	0.1	0.2		
Euphorbia drummondii	0.1	0.1	CPH041-02	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Euphorbia tannensis subsp. *eremophila*	0.1	0.3		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH060-01	
Goodenia nuda	0.1	0.2		
Goodenia prostrata	0.1	0.1		
Hakea lorea subsp. *lorea*	0.25	4		
Iseilema membranaceum	0.1	0.1	CPH199-02	
Ophioglossum lusitanicum	0.1	0.1		
Panicum effusum	0.1	0.2		
Paspalidium rarum	0.1	0.1	CPH048-08	
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)	0.1	0.1	CPH165-02	
Perotis rara	0.1	0.1		
Polycarpaea longiflora	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Roebuckiella similis	0.1	0.1	CPH179.04	
Salsola australis	0.1	0.4		
Senna notabilis	0.1	0.5		
Sida fibulifera	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Stenopetalum nutans	0.1	0.1	CPH165-01	
Themeda triandra	75	1.1		
Tribulus astrocarpus	0.1	0.1	CPH176.05	
Triodia pungens	0.1	0.2		

Central Pilbara Hub **Site CPH-166**



Date	18/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	684343 mE;	7466716 mN
	118.797225 E	-22.897372 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia melvillei, Triodia pungens* mid hummock grassland with *Corymbia deserticola* subsp. *deserticola* low isolated trees over *Acacia adsurgens, Acacia ancistrocarpa, Acacia tenuissima* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	2.3		
Acacia ancistrocarpa	0.1	2.8		
Acacia aptaneura	0.1	3.4		
Acacia dictyophleba	0.1	1.4		
Acacia pruinocarpa	0.1	3		
Acacia tenuissima	0.1	3		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.3		
Aristida inaequiglumis	0.1	0.3		
Corymbia deserticola subsp. *deserticola*	1	7		
Cymbopogon ambiguus	0.1	0.3		
Dendrophyllanthus erwinii	0.1	0.1		
Digitaria ammophila	0.1	0.3		
Digitaria brownii	0.1	0.4	CPH048.02	
Duperreya commixta	0.1	0.1		
Eragrostis eriopoda	0.1	0.2	CPH166.01	
Eriachne mucronata	0.1	0.3		
Eulalia aurea	0.1	0.5		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Goodenia microptera	0.1	0.1		
Goodenia stobbsiana	0.1	0.1		
Grevillea berryana	0.1	2.5		
Hakea chordophylla	0.1	3.2		
Hibiscus burtonii	0.1	0.3		
Hibiscus sturtii	0.1	0.2		
Indigofera georgei	0.1	0.4		
Indigofera monophylla	0.1	0.3		
Panicum effusum	0.1	0.3		
Paraneurachne muelleri	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Psydrax suaveolens	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	1.2		
Senna glutinosa subsp. x *luerssenii*	0.1	1.4		
Seringia exastia	0.1	0.8		
Sida cardiophylla	0.1	0.1		
Solanum lasiophyllum	0.1	0.3		
Themeda triandra	0.1	0.3		
Triodia melvillei	60	0.6		
Triodia pungens	1	0.4		
Triodia wiseana	0.1	0.8		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-167**



Date	18/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	684034 mE;	7467203 mN
	118.794162 E	-22.893005 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Sandy/ Stony Plain	
Vegetation	*Acacia aptaneura, Acacia pruinocarpa* low open woodland over *Ptilotus obovatus* var. *obovatus, Sida* sp. L (A.M. Ashby 4202), *Sida platycalyx* low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	0.1	3	CPH155-02	
Acacia aptaneura	3	8		
Acacia pruinocarpa	0.5	4.5		
Acacia tenuissima	0.1	3		
Alternanthera nana	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Aristida obscura	0.1	0.3		
Boerhavia coccinea	0.1	0.1		
**Bothriochloa pertusa*	0.1	0.5	CPH167-01	
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	0.1	0.5		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.1	0.4	CPH048.02	
Duperreya commixta	0.1	0		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.2		
Eremophila latrobei subsp. *filiformis*	0.1	1.6		
Eriachne helmsii	0.1	0.3	CPH167-02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.2	CPH060-01	
Goodenia prostrata	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	0.3		
Hibiscus burtonii	0.1	0.5		
Hibiscus sturtii	0.1	0.2		
Maireana villosa	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		
Psydrax latifolia	0.1	2.5		
Psydrax rigidula	0.1	1.1		
Ptilotus obovatus var. *obovatus*	1	0.5		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida platycalyx	0.5	0.2		
Sida sp. L (A.M. Ashby 4202)	0.5	0.3		
Solanum ferocissimum	0.1	0.2		
Teucrium teucriiflorum	0.1	0.4		
Triodia melvillei	0.1	0.4		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-168**



Date	16/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	683312 mE;	7467285 mN
	118.787112 E	-22.892345 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Themeda triandra* mid closed tussock grassland with *Acacia aptaneura, Eucalyptus xerothermica* low woodland over *Ptilotus astrolasius* low sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.4		
Abutilon otocarpum	0.1	0.6		
Acacia aptaneura	8	10		
Acacia incurvaneura	0.1	1.3		
Alternanthera nana	0.1	0.1		
Amyema sp. Indet	0.1	0		In *Acacia aptaneura*
Aristida inaequiglumis	0.1	0.4		
Aristida lazaridis (P2)	0.1	0.5		
Aristida obscura	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Boerhavia sp. Indet	0.1	0.1		Sterile
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Chrysopogon fallax	0.1	0.5		
Commelina ensifolia	0.1	0.1		
Digitaria ammophila	0.1	0.3		
Duperreya commixta	0.1	0		
Enneapogon caerulescens	0.1	0.1		
Enneapogon polyphyllus	0.1	0.1		
Eremophila longifolia	0.1	3		
Eucalyptus xerothermica	6	8.5		
Eulalia aurea	0.1	0.3		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Grevillea berryana	0.1	3.5		
Hibiscus burtonii	0.1	0.5		
Isotropis iophyta	0.1	0.2		
Maireana planifolia	0.1	0.3		
Maireana villosa	0.1	0.2		
**Malvastrum americanum*	0.1	0.1		
Panicum effusum	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Psydrax latifolia	0.1	1.2		
Psydrax rigidula	0.1	0.4		
Ptilotus astrolasius	2	0.8		
Ptilotus obovatus var. *obovatus*	0.2	0.4		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.1		
Setaria dielsii	0.1	0.1	CPH168-02	
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Themeda triandra	70	0.6		
Urochloa occidentalis var. *ciliata*	0.1	0.1	CPH168-01	

Central Pilbara Hub **Site CPH-169**



Date	16/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	682786 mE;	7466603 mN
	118.782072 E	-22.898560 S
Veg Condition	Very Good	
Soil	Light Clay	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	

Vegetation *Acacia aptaneura, Acacia pruinocarpa* low open woodland over *Sida ectogama, Psydrax latifolia, Grevillea berryana* mid to tall isolated shrubs over *Fimbristylis dichotoma, Aristida contorta, Eragrostis olida* low isolated clumps of sedges and tussock grasses.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.3		
Acacia aptaneura	2	5		
Acacia pruinocarpa	1	4.5		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3	CPH169.01	
Aristida obscura	0.1	0.3		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.3		
Chrysopogon fallax	0.1	0.3		
Dactyloctenium radulans	0.1	0.1		
Digitaria ctenantha	0.1	0.1	CPH169.02	
Dysphania melanocarpa	0.1	0.1	CPH169.10	
Enneapogon polyphyllus	0.1	0.2		
Eragrostis olida	0.1	0.4	CPH021.05	
Eragrostis pergracilis	0.1	0.1	CPH169.12	
Eremophila latrobei subsp. *filiformis*	0.1	1.55		
Eriachne mucronata	0.1	0.4	CPH048-07	
Eriachne pulchella subsp. *pulchella*	0.1	0.1	CPH169.04	
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH169.07	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.2	CPH043-03	
Gomphrena lanata	0.1	0.1	CPH169.08	
Goodenia nuda	0.1	0.2	CPH169.03	
Goodenia prostrata	0.1	0.1		
Grevillea berryana	0.1	3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Hibiscus burtonii	0.1	0.4		
Iseilema membranaceum	0.1	0.1	CPH169.11	
Maireana planifolia	0.1	0.4		
Maireana villosa	0.1	0.3	CPH041-03	
Ophioglossum lusitanicum	0.1	0.1		
Paspalidium clementii	0.1	0.1	CPH169.06	
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Psydrax latifolia	0.1	3		
Ptilotus gaudichaudii	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus polystachyus	0.1	0.2	CPH056.06	
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	2		
Rhodanthe propinqua	0.1	0.1	CPH169.05	
Roebuckiella similis	0.1	0.2		
Sida ectogama	0.1	1.1		
Sida platycalyx	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Spermacoce brachystema	0.1	0.1	CPH169.09	
Teucrium teucriiflorum	0.1	0.6		
Tribulus astrocarpus	0.1	0.1		
Triodia melvillei	0.1	0.4		
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-170**



Date 16/06/2022
Described by Clinton van den Bergh, Ché Parker
Type Quadrat 50m x 50m
Location MGA Zone 50
681813 mE; 7466670 mN
118.772579 E -22.898062 S
Veg Condition Very Good
Soil Light Clay
Rock Type None Discernible
Fire Age Old (6+ yr)
Habitat Hardpan Plain
Vegetation *Acacia aptaneura* low woodland over *Triodia melvillei* low open hummock grassland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	25	6		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eremophila latrobei subsp. *filiformis*	0.1	0.7		
Euphorbia drummondii	0.1	0.1	CPH041-02	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Grevillea berryana	0.1	2		
Hibiscus burtonii	0.1	0.3		
Maireana villosa	0.1	0.2		
Ophioglossum lusitanicum	0.1	0.1		
Paspalidium clementii	0.1	0.2	CPH169.06	
**Portulaca oleracea*	0.1	0.1		
Psydrax latifolia	0.1	0.2		
Psydrax rigidula	0.1	0.3		
Psydrax suaveolens	0.1	0.7		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.5		
Seringia exastia	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum ferocissimum	0.1	0.2		
Triodia melvillei	20	0.5		
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-171**



Date	16/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	681308 mE;	7466425 mN
	118.767682 E	-22.900328 S
Veg Condition	Very Good	
Soil	Light Clay	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* tall open shrubland over *Triodia melvillei* low sparse hummock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	20	6		
Aristida contorta	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Euphorbia drummondii	0.1	0.1	CPH041-02	
Euphorbia tannensis subsp. *eremophila*	0.1	0.1	CPH-51-08	
Fimbristylis dichotoma	0.1	0.1	CPH043-03	
Goodenia prostrata	0.1	0.1		
Hibiscus burtonii	0.1	0.3		
Maireana villosa	0.1	0.3		
Ophioglossum lusitanicum	0.1	0.1		
Perotis rara	0.1	0.1		
Psydrax suaveolens	0.1	2.2		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3		
Roebuckiella similis	0.1	0.2		
Senna notabilis	0.1	0.1		
Seringia exastia	0.1	0.5		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum cleistogamum	0.1	0.1		
Solanum ferocissimum	0.1	0.1		
Triodia melvillei	8	0.4		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-172**



Date	16/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	680064 mE;	7466532 mN
	118.755548 E	-22.899502 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* low open forest over *Triodia melvillei* low open hummock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Indet	0.1	0.1	CPH173-02	
Acacia aptaneura	35	8		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Codonocarpus cotinifolius	0.1	0.8		
Enneapogon polyphyllus	0.1	0.1		
Eremophila latrobei subsp. *filiformis*	0.1	0.4		
Euphorbia biconvexa	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH060-01	
Hibiscus burtonii	0.1	0.4		
Maireana planifolia	0.1	0.3		
Maireana villosa	0.1	0.3		
Ophioglossum lusitanicum	0.1	0.1		
Psydrax latifolia	0.1	0.5		
Psydrax rigidula	0.1	0.4		
Psydrax suaveolens	0.1	2		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus roei	0.1	0.1		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.1		
Solanum ferocissimum	0.1	0.2		
Teucrium teucriiflorum	0.1	0.5		
Triodia melvillei	20	0.4		
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-173**



Date	16/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	680913 mE;	7466732 mN
	118.763795 E	-22.897598 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aptaneura* low open woodland over *Triodia melvillei* mid sparse hummock grassland with *Ptilotus obovatus* var. *obovatus*, *Seringia exastia* low isolated clumps of shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	4	5		
Acacia tenuissima	0.1	5		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
**Bidens bipinnata*	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Cymbopogon ambiguus	0.1	0.3		
Digitaria ammophila	0.1	0.2		
Dysphania kalpari	0.1	0.1	CPH173-01	
Eremophila longifolia	0.1	1.3		
Eriachne mucronata	0.1	0.3		
Eriachne pulchella	0.1	0.1		
Euphorbia ?drummondii	0.1	0.1	CPH174-01	
Euphorbia tannensis subsp. *eremophila*	0.1	0.2		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Fimbristylis dichotoma	0.1	0.1	CPH060-01	
Goodenia prostrata	0.1	0.1		
Hibiscus burtonii	0.1	0.4		
Maireana villosa	0.1	0.3		
Panicum effusum	0.1	0.2		
Paraneurachne muelleri	0.1	0.3		
Paspalidium rarum	0.1	0.1	CPH048-08	
Psydrax rigidula	0.1	2		
Psydrax suaveolens	0.1	1.4		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.5	0.4		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3	CPH176.07	
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Roebuckiella similis	0.1	0.1	CPH179.04	
Senna notabilis	0.1	0.2		
Seringia exastia	0.5	0.3		
Sida sp. Indet	0.1	0.3	CPH173-02	
Sida sp. L (A.M. Ashby 4202)	0.1	0.3		
Solanum ferocissimum	0.1	0.2		
Solanum lasiophyllum	0.1	0.4		
Triodia melvillei	4	0.5		
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-174**



Date	16/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	679254 mE;	7466525 mN
	118.747651 E	-22.899653 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aptaneura, Grevillea berryana* low open woodland over *Triodia melvillei* mid sparse hummock grassland with *Grevillea berryana, Acacia aptaneura* mid isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	2	4.5		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Aristida obscura	0.1	0.3		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.3		
Digitaria ammophila	0.1	0.3		
Eremophila lanceolata	0.1	0.3		
Eremophila latrobei subsp. *filiformis*	0.1	0.8		
Eriachne mucronata	0.1	0.3		
Euphorbia ?drummondii	0.1	0.1	CPH174-01	
Fimbristylis dichotoma	0.1	0.2	CPH060-01	
Goodenia prostrata	0.1	0.1		
Grevillea berryana	0.1	3		
Hakea lorea subsp. *lorea*	0.1	2		
Hibiscus burtonii	0.1	0.5		
Maireana planifolia	0.1	0.3		
Maireana villosa	0.1	0.3		
Ophioglossum lusitanicum	0.1	0.1		
Panicum effusum	0.1	0.2		
Perotis rara	0.1	0.1		
Psydrax rigidula	0.1	0.6		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3	CPH176.07	
Roebuckiella similis	0.1	0.1		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum ferocissimum	0.1	0.2		
Teucrium teucriiflorum	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Triodia melvillei	2	0.4		
Tripogonella loliiformis	0.1	0.1	CPH041-01	
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-175**



Date	15/06/2022	
Described by	Emma Marsh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	678371 mE;	7466003 mN
	118.739105 E	-22.904461 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura, Grevillea berryana* mid to low open forest over *Triodia pungens* low isolated clumps of hummock grasses with *Aristida obscura, Chrysopogon fallax* mid to low isolated clumps of tussock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.1	CPH069-02	
Acacia aptaneura	35	12		
Alternanthera nana	0.1	0.1		
Aristida obscura	0.1	0.3		
Arivela uncifera	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Boerhavia repleta	0.1	0.1		
Calandrinia sp. Indet	0.1	0.1	CPH175-04	
Cheilanthes sieberi subsp. *sieberi*	0.3	0.1		
Chrysopogon fallax	0.1	0.5		
Commelina ensifolia	0.1	0.1	CPH179.06	
Duperreya commixta	0.1	0		
Dysphania melanocarpa	0.1	0.1	CPH175-03	
Dysphania rhadinostachya	0.1	0.1		
Eremophila latrobei subsp. *filiformis*	0.1	1	CPH176.01	
Eriachne mucronata	0.1	0.3		
Eriachne pulchella	0.1	0.1		
Euphorbia australis	0.1	0.1		
Euphorbia biconvexa	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Goodenia prostrata	0.1	0.1		
Grevillea berryana	12	9		
Hibiscus burtonii	0.1	0.3		
Iseilema membranaceum	0.1	0.1	CPH175.01	
Maireana planifolia	0.1	0.2		
Maireana villosa	0.1	0.2		
Panicum effusum	0.1	0.1		
Paraneurachne muelleri	0.1	0.3		
Paspalidium rarum	0.1	0.1		
Perotis rara	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
**Portulaca oleracea*	0.1	0.1		
Portulaca pilosa	0.1	0.1		
Psydrax latifolia	0.1	0.4		
Psydrax suaveolens	0.1	0.2		
Ptilotus auriculifolius	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.1	CPH175.03	
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3	CPH176.07	
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.2		
Roebuckiella similis	0.1	0.1	CPH179.04	
Senna notabilis	0.1	0.1		
Seringia exastia	0.1	0.3		
Sida ectogama	0.1	0.7	CPH176.03	
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.4		
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.4	CPH-51-04	
Solanum ferocissimum	0.1	0.1		
Teucrium teucriiflorum	0.1	0.3	CPH179.07	
Thyridolepis mitchelliana	0.1	0.3	CPH175-02	
Triodia pungens	8	0.3		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-176**



Date	15/06/2022	
Described by	Emma Marsh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	678175 mE;	7466641 mN
	118.737128 E	-22.898717 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* low open woodland over *Grevillea berryana* mid isolated clumps of shrubs over *Triodia pungens* low isolated clumps of hummock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon lepidum	0.1	0.1		
Acacia aptaneura	5	2.5		
Acacia minyura	0.1	1.6	CPH176.06	
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.4		
Arivela uncifera	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Cymbopogon ambiguus	0.1	0.4		
Enneapogon polyphyllus	0.1	0.1		
Eremophila latrobei subsp. *filiformis*	0.1	1.1	CPH176.01	
Eremophila sp. Indet.	0.1	0.2		Sterile
Eriachne mucronata	0.1	0.3		
Eriachne pulchella	0.1	0.1		
Euphorbia trigonosperma	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH060-01	
Goodenia prostrata	0.1	0.1		
Grevillea berryana	0.5	1.2		
Hibiscus burtonii	0.1	0.2		
Maireana ?tomentosa	0.1	0.3	CPH176.02	
Maireana planifolia	0.1	0.4		
Ptilotus calostachyus	0.1	0.3		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.3	CPH176.07	
Sclerolaena tetragona	0.1	0.2	CPH176.04	
Sida ectogama	0.1	0.4	CPH176.03	
Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	0.1	0.1	CVOpp.06	
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.1	CPH-51-04	
Solanum ferocissimum	0.1	0.1		
Solanum lasiophyllum	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Tribulus astrocarpus	0.1	0.1	CPH176.05	
Triodia pungens	1	0.3		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-178**



Date	15/06/2022	
Described by	Emma Marsh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	677082 mE;	7466149 mN
	118.726526 E	-22.903276 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Goodenia prostrata* low sparse herbland with *Ptilotus schwartzii* var. *schwartzii* low isolated shrubs with *Aristida contorta, Eriachne mucronata* low isolated grasses.	
Notes	This is area between Mulga banding.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	0.1	0.8		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.2		
Calandrinia sp. Indet	0.1	0.1	CPH175-04	
Dactyloctenium radulans	0.1	0.1		
Eremophila lanceolata	0.1	0.3		
Eriachne pulchella	0.1	0.1		
Euphorbia australis	0.1	0.1		
Goodenia prostrata	0.25	0.1		
Maireana planifolia	0.1	0.2		
Maireana sp. Indet	0.1	0.3	CPH178-02	
Maireana villosa	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Ptilotus calostachyus	0.1	0.1		
Ptilotus clementii	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.1		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.25	0.1		
Salsola australis	0.1	0.2		
Sclerolaena cornishiana	0.1	0.2	CPH178-04	
Sclerolaena tetragona	0.1	0.1	CPH176.04	
Sida fibulifera	0.1	0.1	CPH178.01	
Sida platycalyx	0.1	0.2		
Solanum lasiophyllum	0.1	0.3		
Tragus australianus	0.1	0.1		
Tribulus astrocarpus	0.1	0.1	CPH176.05	
Tribulus sp. Indet	0.1	0.1	CPH178-03	

Central Pilbara Hub **Site CPH-179**



Date	15/06/2022	
Described by	Emma Marsh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	677369 mE;	7466502 mN
	118.729290 E	-22.900057 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	

Vegetation *Acacia incurvaneura, Acacia aptaneura* low woodland over *Triodia pungens* low isolated clumps of hummock grasses over *Cheilanthes sieberi* subsp. *sieberi*, ***Bidens bipinnata* low isolated herbs with *Chrysopogon fallax, Enneapogon polyphyllus* mid to low isolated clumps of tussock grasses.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.1	CPH095-01	
Abutilon otocarpum	0.1	0.2	CPH031.05	
Acacia aptaneura	5	6		
Acacia tetragonophylla	0.1	0.4		
Alternanthera nana	0.1	0.1		
Aristida contorta	0.1	0.1		
Aristida obscura	0.1	0.3		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.25	0.1		
Boerhavia repleta	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.5	0.1		
**Chloris virgata*	0.1	0.2		
Chrysopogon fallax	0.1	0.6		
Clerodendrum floribundum var. *floribundum*	0.1	0.1		
Commelina ensifolia	0.1	0.1	CPH179.06	
Convolvulus clementii	0.1	0.1	CPH179.02	
Crotalaria medicaginea var. *neglecta*	0.1	0.1		
Dactyloctenium radulans	0.1	0.1		
Digitaria brownii	0.1	0.1		
Enneapogon polyphyllus	0.1	0.2		
Eriachne mucronata	0.1	0.3		
Eriachne pulchella	0.1	0.1		
Eulalia aurea	0.1	0.1		
Euphorbia trigonosperma	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1	CPH060-01	
Goodenia microptera	0.1	0.2		
Goodenia prostrata	0.1	0.1		
Maireana planifolia	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Maireana villosa	0.1	0.2		
Nicotiana rosulata	0.1	0.4	CPH179.05	
Paspalidium rarum	0.1	0.1		
Perotis rara	0.1	0.1		
Polygala glaucifolia	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Psydrax suaveolens	0.1	0.5		
Ptilotus clementii	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.2	CPH179.01	
Ptilotus helipteroides	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.2		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.1		
Rhynchosia minima	0.1	0		
Roebuckiella similis	0.1	0.2	CPH179.04	
Sclerolaena cornishiana	0.1	0.3	CPH056.04	
Senna notabilis	0.1	0.1		
Setaria surgens	0.1	0.1	CPH048-12	
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.1	CPH-51-04	
Stenopetalum nutans	0.1	0.1	CPH179.03	
Teucrium teucriiflorum	0.1	0.3	CPH179.07	
Themeda triandra	0.1	0.8		
Tribulus astrocarpus	0.1	0.1	CPH176.05	
Triodia pungens	2	0.3		
Urochloa occidentalis var. *ciliata*	0.1	0.1	CPH179.01	

Central Pilbara Hub **Site CPH-180**



Date	16/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	679689 mE;	7466136 mN
	118.751940 E	-22.903110 S
Veg Condition	Good	
Soil	Light Clay	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	

Vegetation *Acacia aptaneura, Eucalyptus xerothermica* low woodland over *Acacia aptaneura* mid to tall sparse shrubland over *Triodia melvillei* low isolated hummock grasses over ***Bidens bipinnata* low isolated clumps of herbs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.2		
Acacia aptaneura	10	6.5		
Amaranthus cuspidifolius	0.1	0.1	CPH180.01	
Aristida obscura	0.1	0.3		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	1	0.1		
Boerhavia coccinea	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
**Chloris virgata*	0.1	0.1		
Chrysopogon fallax	0.1	0.4		
Commelina ensifolia	0.1	0.1		
Dactyloctenium radulans	0.1	0.1		
Digitaria ctenantha	0.1	0.1	CPH169.02	
Duperreya commixta	0.1	0.1		
**Echinochloa colona*	0.1	0.2		
Enneapogon lindleyanus	0.1	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eremophila latrobei subsp. *filiformis*	0.1	1		
Eucalyptus xerothermica	2	6		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Hibiscus burtonii	0.1	0.3		
Ipomoea muelleri	0.1	0.1		
Maireana planifolia	0.1	0.2		
Maireana villosa	0.1	0.3		
**Malvastrum americanum*	0.1	0.2		
Paspalidium clementii	0.1	0.1	CPH169.06	
**Portulaca oleracea*	0.1	0.1		
Psydrax latifolia	0.1	1.2		
Psydrax rigidula	0.1	0.6		
Psydrax suaveolens	0.1	1.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus roei	0.1	0.1		
Rhagodia eremaea	0.1	0.4		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.3		
Salsola australis	0.1	0.4		
Setaria surgens	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Solanum ferocissimum	0.1	0.2		
Teucrium teucriiflorum	0.1	1.2		
Themeda triandra	0.1	0.4		
Tragus australianus	0.1	0.1		
Tribulus astrocarpus	0.1	0.1		
Triodia melvillei	1	0.4		
Vincetoxicum lineare	0.1	0.1		

Central Pilbara Hub **Site CPH-181**



Date	3/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	692182 mE;	7452694 mN
	118.875371 E	-23.023089 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii* low open hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia trudgeniana* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	0.25	1		
Acacia cowleana	0.1	0.2		
Acacia elachantha	0.5	2		
Acacia tenuissima	0.1	1		
Acacia trudgeniana	2	3		
Aristida holathera var. *holathera*	0.1	0.2		
Cymbopogon ambiguus	0.1	0.5		
Cymbopogon obtectus	0.1	1.1		
Enneapogon polyphyllus	0.1	0.4		
Euphorbia australis var. *hispidula*	0.1	0.1		
Hakea chordophylla	1	3		
Hakea lorea subsp. *lorea*	0.1	1		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0		
Paraneurachne muelleri	0.1	0.4		
Paspalidium clementii	0.1	0.1		
Ptilotus calostachyus	0.1	0.8		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus rotundifolius	0.1	1		
Senna glutinosa subsp. *glutinosa*	0.1	1.1		
Senna glutinosa subsp. *pruinosa*	0.1	0.5		
Sida arenicola	0.1	1		
Solanum lasiophyllum	0.1	0.4		
Triodia vanleeuwenii	12	0.2		

Central Pilbara Hub **Site CPH-182**



Date	3/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	692866 mE;	7452819 mN
	118.882026 E	-23.021883 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii* low open hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia dictyophleba, Acacia tenuissima* mid to tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia bivenosa	0.1	0.4		
Acacia dictyophleba	0.5	2.5		
Acacia elachantha	0.1	1.9		
Acacia tenuissima	0.25	1		
Amphipogon sericeus	0.1	0.3		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.3		
Dampiera candicans	0.1	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	1	1		
Hakea chordophylla	0.1	1		
Indigofera monophylla	0.1	0.3		
Maireana villosa	0.1	0.3		
Ptilotus calostachyus	0.1	0.5		
Ptilotus rotundifolius	0.1	1.2		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Senna glutinosa subsp. *pruinosa*	0.1	1.1		
Senna sp. Meekatharra (E. Bailey 1-26)	0.1	0.9		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.3		
Solanum lasiophyllum	0.1	0.4		
Triodia vanleeuwenii	12	0.2		

Central Pilbara Hub **Site CPH-183**



Date	3/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	693727 mE;	7453023 mN
	118.890401 E	-23.019943 S
Veg Condition	Excellent	
Soil	Sandy Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Minor Drainage Line	
Vegetation	*Corymbia hamersleyana* mid woodland over *Themeda triandra, Triodia pungens* mid open tussock and hummock grassland with *Eucalyptus gamophylla* low open mallee woodland over *Acacia monticola, Gossypium robinsonii, Dodonaea lanceolata* mid to tall open shrubland over *Scaevola spinescens* low isolated shrubs.	
Notes	100m x 25m, bearing 150.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.5		
Abutilon macrum	0.1	0.9		
Abutilon otocarpum	0.1	0.2		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	0.2		
Acacia ?sibirica	0.1	1.3	CPH183-03	
Acacia adoxa var. *adoxa*	0.2	0.5		
Acacia bivenosa	0.1	1		
Acacia cowleana	0.1	1.5		
Acacia maitlandii	0.1	1		
Acacia monticola	18	3		
Acacia pruinocarpa	0.2	3		
Acacia tenuissima	0.1	1		
Afrohybanthus aurantiacus	0.1	0.3		
Amaranthus cuspidifolius	0.1	0.2		
Androcalva luteiflora	0.1	0.5		
Aristida ?inaequiglumis	0.1	0.4	CPH183-02	
Aristida burbidgeae	0.1	0.4		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.3		
Cheilanthes brownii	0.1	0.5		
Chrysopogon fallax	0.1	0.5		
Clerodendrum floribundum var. *angustifolium*	0.1	1.2		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.5		
Corymbia hamersleyana	20	10		
Cymbopogon ambiguus	0.1	0.8		
Cynanchum floribundum	0.1	0.3		
Dactyloctenium radulans	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Dampiera candicans	0.1	0.4		
Dodonaea lanceolata	2	1.4		
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.4		
Enneapogon robustissimus	0.1	0.9		
Eriachne mucronata	0.1	0.4		
Eucalyptus gamophylla	3	3		
Eucalyptus leucophloia subsp. *leucophloia*	3	14		
Euphorbia biconvexa	0.1	0.2	CPH183-01	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Gompholobium oreophilum	0.1	0.8		
Gomphrena cunninghamii	0.1	0.1		
Goodenia stobbsiana	0.1	0.4		
Gossypium robinsonii	3	1.2		
Halgania gustafsenii var. *gustafsenii*	0.1	0.5		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Hibiscus sturtii var. *platychlamys*	0.1	0.3		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0		
Melhania oblongifolia	0.1	0.4		
Nellica maderaspatensis	0.1	0.1		
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)	0.1	0.3		
Panicum effusum	0.1	0.3		
Paraneurachne muelleri	0.1	0.4		
Peripleura obovata	0.1	0.3		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Rhagodia eremaea	0.1	0.6		
Rhynchosia minima	0.1	0		
Santalum lanceolatum	0.5	2		
Scaevola spinescens	1	0.4		
Senna artemisioides subsp. *helmsii*	0.1	0.5		
Senna artemisioides subsp. *oligophylla*	0.1	1		
Senna glutinosa subsp. *glutinosa*	0.1	0.5		
Senna glutinosa subsp. x *luerssenii*	0.1	0.5		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.4		
Solanum horridum	0.1	0.4		
Solanum lasiophyllum	0.1	0.2		
Streptoglossa decurrens	0.1	0.1		
Tephrosia densa	0.1	0.5	CPH183-04	
Themeda triandra	12	0.6		
Trichodesma zeylanicum var. *zeylanicum*	0.1	1		
Triodia pungens	15	0.5		

Central Pilbara Hub **Site CPH-184**



Date	3/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	691405 mE;	7452913 mN
	118.867766 E	-23.021198 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Ptilotus rotundifolius* mid sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon lepidum	0.1	0.2		
Acacia bivenosa	0.5	1		
Acacia dictyophleba	0.1	0.8		
Acacia elachantha	0.1	1		
Aristida contorta	0.1	0.2		
Aristida holathera var. *holathera*	0.1	0.2		
Cymbopogon obtectus	0.1	0.7		
Eucalyptus leucophloia subsp. *leucophloia*	2	8		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Hibiscus sturtii var. *campylochlamys*	0.1	0.2		
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.6		
Paraneurachne muelleri	0.1	0.4		
Ptilotus astrolasius	0.1	0.3		
Ptilotus calostachyus	0.1	0.8		
Ptilotus rotundifolius	0.5	1.1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	1		
Senna glutinosa subsp. *glutinosa*	0.1	1		
Senna glutinosa subsp. x *luerssenii*	0.1	0.6		
Sida arenicola	0.1	1		
Sida echinocarpa	0.1	0.6		
Solanum lasiophyllum	0.1	1.2		
Triodia vanleeuwenii	30	0.2		
Triodia wiseana	0.1	0.2		

Central Pilbara Hub **Site CPH-185**

Date	3/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	696678 mE;	7452942 mN
	118.919195 E	-23.020327 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii* low open hummock grassland with *Corymbia deserticola* subsp. *deserticola* low isolated trees over *Eucalyptus gamophylla* low open mallee woodland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ?rhodophloia x *sibirica*	0.1	0.3	CPHW04-01	
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia adsurgens	0.1	0.6		
Acacia bivenosa	0.5	0.1		
Acacia cowleana	0.1	1.2		
Acacia dictyophleba	0.1	0.3		
Acacia elachantha	0.1	1.2		
Acacia maitlandii	0.1	0.5		
Acacia tenuissima	0.1	0.6		
Acacia trudgeniana	0.1	1.1		
Afrohybanthus aurantiacus	0.1	0.8		
Aristida inaequiglumis	0.1	0.5	CPHW04-02	
Capparis lasiantha	0.1	0.6		
Corymbia deserticola subsp. *deserticola*	1.5	6.5		
Cymbopogon obtectus	0.1	0.9		
Digitaria ammophila	0.1	0.3		
Duperreya commixta	0.1	0		
Eremophila longifolia	0.1	1		
Eucalyptus gamophylla	2	2.5		
Eucalyptus leucophloia subsp. *leucophloia*	2	5		
Gompholobium oreophilum	0.1	0.4		
Halgania gustafsenii var. *gustafsenii*	0.1	0.6		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Hibiscus sturtii var. *platychlamys*	0.1	0.4		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0		
Paraneurachne muelleri	0.1	0.5		
Ptilotus rotundifolius	0.1	0.4		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna glutinosa subsp. x *luerssenii*	0.1	0.5		
Seringia exastia	0.1	0.6		
Sida arenicola	0.1	0.4		
Solanum centrale	0.1	0.3		
Solanum lasiophyllum	0.1	0.2		
Themeda triandra	0.2	1.1		
Triodia vanleeuwenii	25	0.3		

Central Pilbara Hub **Site CPH-186**



Date	3/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	696333 mE;	7453144 mN
	118.915803 E	-23.018536 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Footslope	
Vegetation	*Triodia vanleeuwenii* low open hummock grassland with *Eucalyptus gamophylla* low open mallee woodland over *Acacia cowleana* tall sparse shrubland with *Corymbia deserticola* subsp. *deserticola* low isolated trees over *Halgania gustafsenii* var. *gustafsenii* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon macrum	0.1	0.6		
Abutilon otocarpum	0.1	0.3		
Acacia adoxa var. *adoxa*	0.1	0.9		
Acacia adsurgens	0.1	1.5		
Acacia bivenosa	0.1	0.8		
Acacia cowleana	3.5	1.5		
Acacia dictyophleba	0.1	2		
Acacia elachantha	0.1	1.2		
Acacia tenuissima	0.1	1.43		
Acacia trudgeniana	0.1	0.8		
Afrohybanthus aurantiacus	0.1	0.4		
Amphipogon sericeus	0.1	0.2		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.2	0.4	CPH185-02	
Bonamia erecta	0.1	0.3		
Codonocarpus cotinifolius	0.1	0.2		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.4		
Corymbia deserticola subsp. *deserticola*	1	3		
Cymbopogon ambiguus	0.1	0.7		
Cymbopogon obtectus	0.1	0.5		
Digitaria brownii	0.1	0.2		
Duperreya commixta	0.1	0		
Eragrostis eriopoda	0.1	0.5		
Eriachne mucronata	0.1	0.5		
Eucalyptus gamophylla	4	2.5		
Eulalia aurea	0.1	0.5		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Goodenia microptera	0.1	0.3		
Goodenia stobbsiana	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Gossypium robinsonii	0.1	1.8		
Halgania gustafsenii var. *gustafsenii*	0.5	0.4		
Hibiscus burtonii	0.1	0.9		
Hibiscus coatesii	0.1	0.3		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Hibiscus sturtii var. *platychlamys*	0.1	0.3		
Indigofera monophylla	0.1	0.5		
Jasminum didymum subsp. *lineare*	0.1	0		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Ptilotus astrolasius	0.1	0.4		
Ptilotus calostachyus	0.1	0.5		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	1.2		
Senna notabilis	0.1	0.2		
Sida arenicola	0.1	0.6		
Solanum horridum	0.1	0.3		
Solanum lasiophyllum	0.1	0.4		
Themeda triandra	0.1	0.9		
Triodia melvillei	0.1	0.3	CPH186-01	
Triodia pungens	0.5	0.3		
Triodia vanleeuwenii	28	0.2		

Central Pilbara Hub **Site CPH-187**



Date	3/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	694386 mE;	7452873 mN
	118.896845 E	-23.021211 S
Veg Condition	Excellent	
Soil	Sandy Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Minor Drainage Line	
Vegetation	*Corymbia hamersleyana* low woodland over *Triodia pungens, Themeda triandra* mid open hummock and tussock grassland with *Eucalyptus gamophylla* low open mallee woodland over *Gossypium robinsonii, Acacia monticola, Androcalva luteiflora* tall open shrubland.	
Notes	100m x 25m, bearing 90.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	1		
Abutilon macrum	0.1	0.9		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	0.5		
Acacia adoxa var. *adoxa*	0.1	0.4		
Acacia bivenosa	0.1	1.2		
Acacia coriacea subsp. *pendens*	0.1	1		
Acacia cowleana	0.1	1.4		
Acacia elachantha	0.1	1.5		
Acacia monticola	3	1.6		
Acacia tenuissima	0.1	1		
Afrohybanthus aurantiacus	0.1	0.2		
Alternanthera nana	0.1	0.3		
Amaranthus cuspidifolius	0.1	0.2		
Androcalva luteiflora	2	2		
Aristida inaequiglumis	0.1	0.8	CPH185-02	
Arivela viscosa	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Boerhavia repleta	0.1	0.1		
Clerodendrum floribundum	0.1	2.5		
Corchorus lasiocarpus subsp. *parvus*	0.1	1.3		
Corymbia hamersleyana	15	12		
Cucumis variabilis	0.1	0		
Cymbopogon ambiguus	0.1	0.6		
Cynanchum floribundum	0.1	0		
Digitaria brownii	0.1	0.8		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	1		
Enneapogon lindleyanus	0.1	0.9		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Enneapogon robustissimus	0.1	0.6		
Eriachne mucronata	2	0.3		
Eucalyptus gamophylla	3	2		
Eucalyptus leucophloia subsp. *leucophloia*	2	3.5		
Euphorbia biconvexa	0.1	0.3	CPH183-01	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Glycine canescens	0.1	0		
Gompholobium oreophilum	0.1	0.5		
Gomphrena cunninghamii	0.1	0.2		
Goodenia microptera	0.1	0.3		
Goodenia stobbsiana	0.1	0.2		
Gossypium robinsonii	10	2		
Hakea chordophylla	0.1	3		
Halgania gustafsenii var. *gustafsenii*	0.1	0.4		
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)	0.1	1.1	CPH187-01	
Hibiscus sturtii var. *campylochlamys*	0.1	0.9		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0		
Melhania oblongifolia	0.1	0.4		
Nellica maderaspatensis	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Polycarpaea longiflora	0.1	0.3		
Ptilotus calostachyus	0.1	0.3		
Ptilotus exaltatus	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Rhagodia eremaea	0.1	1.4		
Rhynchosia minima	0.1	0		
Santalum lanceolatum	0.1	1		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		
Scaevola spinescens	0.1	1.2		
Senna artemisioides subsp. *helmsii*	0.1	1		
Senna artemisioides subsp. *oligophylla*	0.1	0.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.6		
Senna glutinosa subsp. *pruinosa*	0.1	0.9		
Seringia exastia	0.1	0.4		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1		
Solanum horridum	0.1	0.3		
Solanum lasiophyllum	0.1	0.8		
Tephrosia densa	0.1	0.5		
Themeda triandra	6	0.8		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.2		
Triodia pungens	18	0.6		
Triodia wiseana	0.1	0.7		
Vincetoxicum lineare	0.1	0.6		

Central Pilbara Hub **Site CPH-188**



Date	3/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	691102 mE;	7452832 mN
	118.864822 E	-23.021963 S
Veg Condition	Excellent	
Soil	Sandy Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Minor Drainage Line	
Vegetation	*Acacia monticola, Gossypium robinsonii, Androcalva luteiflora* tall shrubland over *Triodia pungens, Themeda triandra* mid to low open hummock and tussock grassland with *Corymbia hamersleyana, Eucalyptus leucophloia* subsp. *leucophloia* low open woodland.	
Notes	100m x 25m, bearing 140.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.7		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	0.5		
Acacia adsurgens	0.1	0.8		
Acacia bivenosa	0.1	2		
Acacia elachantha	0.1	1.9		
Acacia monticola	20	2.5		
Acacia tenuissima	0.1	0.7		
Afrohybanthus aurantiacus	0.1	0.5		
Alternanthera nana	0.1	0.1		
Androcalva luteiflora	2	2.3		
Arivela viscosa	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Boerhavia coccinea	0.1	0.2		
Clerodendrum floribundum var. *angustifolium*	0.1	0.8		
Corchorus lasiocarpus subsp. *parvus*	0.1	1		
Corymbia hamersleyana	8	6		
Crotalaria medicaginea var. *neglecta*	0.1	0.1		
Cymbopogon ambiguus	0.1	0.9		
Cymbopogon obtectus	0.1	0.8		
Dicrastylis cordifolia	0.1	0.2		
Dodonaea lanceolata	0.5	2.5		
Dodonaea viscosa subsp. *mucronata*	0.5	0.6		
Duperreya commixta	0.1	1.8		
Enneapogon robustissimus	0.1	0.8		
Eremophila longifolia	0.1	0.5		
Eriachne mucronata	0.1	0.4		
Eucalyptus gamophylla	0.1	2		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	3.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Gomphrena cunninghamii	0.1	0.1		
Goodenia stobbsiana	0.1	0.4		
Gossypium robinsonii	10	2		
Halgania gustafsenii var. *gustafsenii*	0.1	0.4		
Hibiscus sturtii var. *campylochlamys*	0.1	0.3		
Hibiscus sturtii var. *platychlamys*	0.1	0.4		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0.9		
Melhania oblongifolia	0.1	0.3		
Nellica maderaspatensis	0.1	0.2		
Paraneurachne muelleri	0.1	0.4		
Polycarpaea longiflora	0.1	0.1		
Ptilotus astrolasius	0.1	0.3		
Ptilotus calostachyus	0.1	0.8		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Rhynchosia minima	0.1	0		
Santalum lanceolatum	0.1	1.5		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *helmsii*	0.1	0.7		
Senna artemisioides subsp. *oligophylla*	0.1	1.5		
Senna glutinosa subsp. *glutinosa*	0.1	1		
Solanum horridum	0.1	0.4		
Tephrosia densa	0.1	0.4		
Themeda triandra	5	0.6		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.1		
Triodia pungens	12	0.3		

Central Pilbara Hub **Site CPH-189**



Date	10/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	679281 mE;	7465010 mN
	118.748097 E	-22.913328 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Triodia wiseana* low hummock grassland with *Acacia hamersleyensis, Acacia marramamba, Acacia aptaneura* tall sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	0.2	2.5		
Acacia hamersleyensis	2	3		
Acacia maitlandii	0.1	2		
Acacia marramamba	0.5	2.6		
Acacia tetragonophylla	0	1.4		
Capparis lasiantha	0.1	0.5		
Cymbopogon ambiguus	0.1	0.2		
Eremophila latrobei subsp. *latrobei*	0.1	1.5		
Eriachne mucronata	0.1	0.2		
Eucalyptus leucophloia subsp. *leucophloia*	1	8.5		
Gompholobium oreophilum	0.1	0.4		
Goodenia triodiophila	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	1.6		
Ptilotus calostachyus	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.2		
Senna glutinosa subsp. *glutinosa*	0.1	1.5		
Senna glutinosa subsp. *pruinosa*	0.1	1.8		
Seringia exastia	0.1	0.3		
Solanum lasiophyllum	0.1	0.2		
Trachymene oleracea subsp. *oleracea*	0.1	0.1		
Triodia wiseana	40	0.4		

Central Pilbara Hub **Site CPH-190**



Date	11/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	684078 mE;	7464507 mN
	118.794913 E	-22.917347 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura, Eucalyptus xerothermica* low open woodland over *Themeda triandra, Aristida obscura, Enneapogon lindleyanus* low sparse tussock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cryptopetalum	0.1	0.3		
Acacia aptaneura	8	8		
Aristida contorta	0.1	0.1		
Aristida lazaridis (P2)	0.1	0.4		
Aristida obscura	0.2	0.2		
Arivela viscosa	0.1	0.3		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
**Chloris barbata*	0.1	0.2		
Chrysopogon fallax	0.1	0.4		
Cucumis variabilis	0.1	0		
Dactyloctenium radulans	0.1	0.1		
Dichanthium sericeum subsp. *humilius*	0.1	0.2		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.1	0.3		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	0.3		
Enneapogon lindleyanus	0.2	0.2		
Eremophila longifolia	0.1	0.9		
Eriachne flaccida	0.1	0.4	CPH231.02	
Eucalyptus xerothermica	0.5	7.5		
Eulalia aurea	0.1	0.4		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Grevillea berryana	0.1	2.1		
Hibiscus burtonii	0.1	0.4		
Isotropis iophyta	0.1	0.3		
Lepidium sp. Indet	0.1	0.1		
Maireana planifolia	0.1	0.2		
**Malvastrum americanum*	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Paraneurachne muelleri	0.1	0.3		
Paspalidium rarum	0.1	0.2		
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus roei	0.1	0.1		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.7		
Salsola australis	0.1	0.3		
**Setaria verticillata*	0.1	0.3		
Sida fibulifera	0.1	0.2		
Solanum lasiophyllum	0.1	0.6		
Teucrium teucriiflorum	0.1	0.4		
Themeda triandra	2	0.4		
**Tribulus terrestris*	0.1	0.1		

Central Pilbara Hub **Site CPH-191**



Date	11/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	682827 mE;	7465180 mN
	118.782640 E	-22.911404 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* low open hummock grassland with *Acacia maitlandii* tall sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.2		
Acacia maitlandii	5	2.1		
Acacia monticola	0.1	1.8		
Acacia pyrifolia var. *pyrifolia*	0.1	2.1		
Amphipogon sericeus	0.1	0.3		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.2		
Corymbia hamersleyana	0.1	4.5		
Cymbopogon ambiguus	0.1	0.4		
Duperreya commixta	0.1	0		
Eremophila lachnocalyx	0.1	0.4		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	1	5.5		
Eulalia aurea	0.1	0.2		
Gompholobium oreophilum	0.1	0.4		
Gossypium robinsonii	0.1	1.4		
Grevillea berryana	0.1	1.8		
Indigofera monophylla	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	1.5		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	0.1	1.8		
Ptilotus calostachyus	0.1	0.2		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus rotundifolius	0.1	0.7		
Schizachyrium fragile	0.1	0.1		
Senna artemisioides subsp. *oligophylla*	0.1	2.1		
Senna glutinosa subsp. *glutinosa*	0.1	1.8		
Senna glutinosa subsp. *pruinosa*	0.1	1.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Seringia exastia	0.1	0.3		
Solanum lasiophyllum	0.1	0.3		
Triodia pungens	0.1	0.4		
Triodia wiseana	15	0.5		

Central Pilbara Hub **Site CPH-192**



Date	11/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	682876 mE;	7465669 mN
	118.783053 E	-22.906982 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Stony Plain	
Vegetation	*Triodia wiseana* low sparse hummock grassland with *Acacia ancistrocarpa, Acacia inaequilatera* tall sparse shrubland with *Corymbia deserticola* subsp. *deserticola* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia adsurgens	0.1	2		
Acacia ancistrocarpa	0.5	2.2		
Acacia dictyophleba	0.1	0.3		
Acacia inaequilatera	0.5	2		
Acacia sp. Indet	0.1	2.2		
Amphipogon sericeus	0.1	0.3		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.2		
Corchorus lasiocarpus	0.1	0.3		
Digitaria ammophila	0.1	0.3		
Eremophila lachnocalyx	0.1	0.3		
Indigofera monophylla	0.1	0.3		
Panicum effusum	0.1	0.3		
Paraneurachne muelleri	0.1	0.3		
Ptilotus calostachyus	0.1	0.4		
Ptilotus rotundifolius	0.1	0.4		
Senna artemisioides subsp. *oligophylla*	0.1	0.2		
Senna glutinosa subsp. *glutinosa*	0.1	2.5		
Seringia exastia	0.1	0.3		
Solanum lasiophyllum	0.1	0.5		
Themeda triandra	0.1	0.3		
Triodia wiseana	0.5	25		

Central Pilbara Hub **Site CPH-193**



Date	10/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	676654 mE;	7464669 mN
	118.722522 E	-22.916686 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia pungens* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland to isolated trees over *Eremophila latrobei* subsp. *latrobei, Senna glutinosa* subsp. *glutinosa* mid isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	1.8		
Acacia bivenosa	0.1	1.4		
Acacia dictyophleba	0.1	1.8		
Acacia pruinocarpa	0.1	1.1		
Amphipogon sericeus	0.1	0.2		
Amyema fitzgeraldii	0.1	0		
Capparis lasiantha	0.1	0.6		
Eremophila latrobei subsp. *latrobei*	0.1	1.3		
Eremophila longifolia	0.1	1.5		
Eriachne mucronata	0.5	0.2		
Eucalyptus leucophloia subsp. *leucophloia*	2	8		
Ptilotus exaltatus	0.1	0.1		
Ptilotus rotundifolius	0.1	0.3		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.3		
Senna glutinosa subsp. *glutinosa*	0.1	1.5		
Senna glutinosa subsp. *pruinosa*	0.1	1.4		
Themeda triandra	0.1	0.3		
Triodia pungens	45	0.4		

Central Pilbara Hub **Site CPH-195**



Date	12/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	679815 mE;	7471802 mN
	118.752515 E	-22.851943 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Triodia wiseana, Triodia pungens* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low isolated trees over *Grevillea wickhamii* subsp. *hispidula, Senna glutinosa* subsp. *glutinosa* mid to tall isolated shrubs over *Eriachne mucronata, Cymbopogon ambiguus* low isolated tussock grasses.	
Notes	Old rehab exploration track nearby, but not influencing vegetation.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adsurgens	0.1	0.5		
Acacia pyrifolia var. *pyrifolia*	0.1	1.5		
Amphipogon sericeus	0.1	0.2		
Amyema fitzgeraldii	0.1	0		
Corchorus sp. Indet	0.1	0.2		
Corymbia hamersleyana	0.1	4.5		
Cymbopogon ambiguus	0.1	0.3		
Dampiera candicans	0.1	0.3		
Eriachne mucronata	0.2	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	1	8.5		
Eulalia aurea	0.1	0.2		
Goodenia cusackiana	0.1	0.1		
Goodenia stobbsiana	0.1	0.2		
Grevillea wickhamii subsp. *hispidula*	1	3		
Paraneurachne muelleri	0.1	0.3		
Ptilotus astrolasius	0.1	0.3		
Ptilotus calostachyus	0.1	0.2		
Ptilotus rotundifolius	0.1	0.5		
Senna glutinosa subsp. *glutinosa*	0.2	1.8		
Tephrosia supina	0.1	0.1		
Triodia pungens	0.5	0.4		
Triodia wiseana	40	0.4		
Triumfetta maconochieana	0.1	0.2		

Central Pilbara Hub **Site CPH-196**



Date	12/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	681154 mE;	7469641 mN
	118.765805 E	-22.871305 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* mid hummock grassland with *Acacia arida* tall sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* low open woodland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia arida	3	2.1		
Acacia hamersleyensis	0.1	2.4		
Acacia maitlandii	0.1	2.1		
Acacia pyrifolia var. *pyrifolia*	0.1	1.3		
Aristida contorta	0.1	0.1		
Corchorus lasiocarpus	0.1	0.2		
Corymbia hamersleyana	0.5	7.5		
Cymbopogon ambiguus	0.1	0.2		
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.1		
Eremophila latrobei subsp. *latrobei*	0.1	2.1		
Eucalyptus leucophloia subsp. *leucophloia*	2	5.5		
Eulalia aurea	0.1	0.2		
Fimbristylis dichotoma	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	2.1		
Jasminum didymum subsp. *lineare*	0.1	0.2		
Petalostylis labicheoides	0.1	2.8		
Ptilotus calostachyus	0.1	0.4		
Ptilotus rotundifolius	0.1	0.5		
Senna artemisioides subsp. *oligophylla*	0.1	0.6		
Senna glaucifolia	0.1	1.1		
Senna glutinosa subsp. *glutinosa*	0.1	1.5		
Solanum lasiophyllum	0.1	0.5		
Triodia wiseana	45	0.6		

Central Pilbara Hub **Site CPH-199**



Date	16/06/2022	
Described by	Emily Eakin-Busher, Emma Marsh	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	683607 mE;	7467386 mN
	118.789975 E	-22.891399 S
Veg Condition	Very Good	
Soil	Light Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Aristida contorta* low sparse tussock grassland with *Acacia aptaneura* low isolated trees over *Ptilotus obovatus* var. *obovatus*, *Ptilotus gaudichaudii* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.3		
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	1	5		
Alternanthera nana	0.1	0.1		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	1.5	0.2		
Aristida inaequiglumis	0.1	0.5		
**Bidens bipinnata*	0.1	0.1		
Boerhavia sp. Indet	0.1	0.1		Sterile
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Digitaria ammophila	0.1	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eremophila lanceolata	0.1	0.3		
Eremophila latrobei subsp. *filiformis*	0.1	0.6		
Euphorbia ferdinandi var. *ferdinandi*	0.1	0.1	CPH199-01	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	1	0.1	CPH060-01	
Goodenia nuda	0.1	0.1		
Goodenia prostrata	0.1	0.1		
Hibiscus burtonii	0.1	0.4		
Iseilema membranaceum	0.1	0.1	CPH199-02	
Maireana villosa	0.1	0.2		
Ophioglossum lusitanicum	0.1	0.1		
Paspalidium rarum	0.1	0.1	CPH048-08	
Perotis rara	0.1	0.1		
**Portulaca oleracea*	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.1		
Ptilotus helipteroides	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Ptilotus roei	0.1	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Roebuckiella similis	0.1	0.1	CPH179.04	
Senna notabilis	0.1	0.2		
Sida platycalyx	0.1	0.2		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Tripogonella loliiformis	0.1	0.1	CPH041-01	

Central Pilbara Hub **Site CPH-203**



Date	15/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	675493 mE;	7449043 mN
	118.712985 E	-23.057900 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* low hummock grassland with *Acacia pruinocarpa, Ptilotus rotundifolius* mid to tall isolated shrubs with *Eucalyptus gamophylla* low isolated mallee trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	0.1	1.9		
Acacia bivenosa	0.1	2.2		
Acacia inaequilatera	0.1	0.6		
Acacia kempeana	0	1.5	CPH230.01	
Acacia pruinocarpa	0.2	2		
Corchorus sp. Indet	0.1	0.1		
Duperreya commixta	0.1	0		
Eucalyptus gamophylla	0.1	3.8		
Ptilotus exaltatus	0.1	0.1		
Ptilotus rotundifolius	0.2	1.4		
Senna artemisioides subsp. *helmsii*	0.1	0.4		
Senna artemisioides subsp. x *artemisioides*	0.1	0.4		
Senna glutinosa subsp. x *luerssenii*	0.1	1.4		
Triodia pungens	35	0.4		

Central Pilbara Hub **Site CPH-204**



Date	15/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	674880 mE;	7448258 mN
	118.707101 E	-23.065055 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Gully	
Vegetation	*Acacia aptaneura, Acacia pruinocarpa, Corymbia ferriticola* low woodland over *Aristida burbidgeae, Cymbopogon ambiguus, Eriachne mucronata* low open tussock grassland with *Triodia pungens* low sparse hummock grassland with *Eremophila naaykensii* (P3), *Capparis mitchellii, Dodonaea petiolaris* mid to tall isolated to sparse shrubland.	
Notes	Large boulders throughout quadrat.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.3		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	1.5		
Acacia aptaneura	8	5		
Acacia catenulata subsp. *occidentalis*	2	4		
Acacia pruinocarpa	1	5		
Aristida burbidgeae	10	0.4		
Astrotricha hamptonii	0.1	2		
Capparis lasiantha	0.1	0		
Capparis mitchellii	0.2	2.5		
Cheilanthes brownii	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Corymbia ferriticola	1	7		
Cymbopogon ambiguus	0.1	0.3		
Dicladanthera forrestii	0.1	0.2		
Dodonaea petiolaris	0.2	2		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	0.2		
Eremophila lachnocalyx	0.1	0.9		
Eremophila naaykensii (P3)	0.5	1.9		
Eriachne mucronata	0.2	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	0.2	6		
Evolvulus alsinoides	0.1	0.1		
Hibiscus coatesii	0.1	0.4		
Peripleura obovata	0.1	0.2		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus obovatus var. *obovatus*	0.1	0.8		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Rhagodia eremaea	0.1	0.6		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.5		
Senna artemisioides subsp. *oligophylla*	0.1	1.4		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.2	0.2		
Solanum cleistogamum	0.4	0.2		
Solanum lasiophyllum	0.1	0.2		
Triodia pungens	4	0.3		

Central Pilbara Hub Site CPH-205



Date	15/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	678543 mE;	7450778 mN
	118.742546 E	-23.041913 S
Veg Condition	Very Good	
Soil	Light Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	

Vegetation *Themeda triandra, Aristida contorta* mid to low open tussock grassland with *Corymbia candida* subsp. *candida, Acacia aptaneura* mid to low isolated trees over *Sida platycalyx, Ptilotus obovatus* var. *obovatus, Salsola australis, Sida* sp. L (A.M. Ashby 4202) low isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	0.3		
Acacia aptaneura	0.1	5		
Acacia bivenosa	0.1	0.8		
Aristida contorta	2	0.3		
Aristida lazaridis (P2)	0.1	0.5		
Arivela viscosa	0.1	0.3		
Capparis lasiantha	0.1	0.7		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysocephalum apiculatum subsp. *pilbarense*	0.1	0.3		
Chrysopogon fallax	0.1	0.5		
Convolvulus clementii	0.1	0		
Corymbia candida subsp. *candida*	1	11		
Cucumis variabilis	0.1	0		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	0.3		
Enneapogon lindleyanus	0.1	0.3		
Enneapogon polyphyllus	0.1	0.4		
Eriachne benthamii	0.1	0.3	CPH232.01	
Eulalia aurea	0.1	0.3		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	2.4		
Jasminum didymum subsp. *lineare*	0.1	0.8		
**Malvastrum americanum*	0.1	0.2		
Panicum decompositum	0.1	0.2		
Pterocaulon sphacelatum	0.1	0.5		
Ptilotus obovatus var. *obovatus*	0.5	0.5		
Salsola australis	0.2	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Santalum lanceolatum	0.1	0.7		
Sclerolaena cornishiana	0.1	0.2		
Senna artemisioides subsp. x *artemisioides*	0.1	0.3		
Sida fibulifera	0.1	0.2		
Sida platycalyx	0.5	0.3		
Sida sp. L (A.M. Ashby 4202)	0.2	0.3		
Solanum lasiophyllum	0.1	0.5		
Stenopetalum nutans	0.1	0.2		
Themeda triandra	25	0.6		

Central Pilbara Hub **Site CPH-209**



Date	16/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	684128 mE;	7448094 mN
	118.797359 E	-23.065529 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia ayersiana* low open woodland over *Triodia pungens* low isolated hummock grasses with *Hibiscus burtonii* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2		
Acacia ayersiana	5	5	CPH227.03	
Acacia catenulata subsp. *occidentalis*	0.5	4		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Aristida jerichoensis var. *subspinulifera* (P3)	0.1	0.3	CPH209.01	
Aristida obscura	0.1	0.1		
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Cynanchum viminale subsp. *australe*	0.2	3		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.1	0.2		
Enchylaena tomentosa var. *tomentosa*	0.1	0.3		
Enneapogon lindleyanus	0.1	0.2		
Eremophila forrestii subsp. *forrestii*	0.1	1.6		
Eriachne pulchella subsp. *pulchella*	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Hibiscus burtonii	0.1	1.5		
Panicum decompositum	0.1	0.2		
Paraneurachne muelleri	0.1	0.2		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.3		
Senna glaucifolia	0.1	1.6		
Senna glutinosa subsp. x *luerssenii*	0.1	0.2		
Sida ectogama	0.1	1.2		
Sida fibulifera	0.1	0.1		
Sida sp. Indet	0.1	0.2		
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.2		
Teucrium teucriiflorum	0.1	0.3		
Triodia pungens	0.5	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Triodia vanleeuwenii	0.5	0.2		

Central Pilbara Hub **Site CPH-210**



Date	16/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	687391 mE;	7449663 mN
	118.829009 E	-23.051000 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Recent (0 to 2 yr)	
Habitat	Undulating Low Hills	
Vegetation	*Triodia vanleeuwenii* low hummock grassland with *Corymbia deserticola* subsp. *deserticola* low isolated trees over *Acacia elachantha, Acacia inaequilatera, Ptilotus rotundifolius* mid isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	0.1	1.2		
Acacia dictyophleba	0.1	0.5		
Acacia elachantha	0.1	1.6		
Acacia inaequilatera	0.1	1		
Acacia tenuissima	0.1	1.5		
Amphipogon sericeus	0.1	0.3		
Codonocarpus cotinifolius	0.1	0.5		
Corymbia deserticola subsp. *deserticola*	0.5	4.5		
Duperreya commixta	0.1	0		
Fimbristylis dichotoma	0.1	0.1		
Goodenia triodiophila	0.1	0.2		
Hakea lorea subsp. *lorea*	0.1	2.3		
Indigofera monophylla	0.1	0.2		
Ptilotus calostachyus	0.1	0.2		
Ptilotus rotundifolius	0.1	1.3		
Senna artemisioides subsp. *helmsii*	0.1	0.4		
Triodia pungens	0.1	0.4		
Triodia vanleeuwenii	35	0.3		

Central Pilbara Hub **Site CPH-211**



Date	14/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	694729 mE;	7444072 mN
	118.901310 E	-23.100636 S
Veg Condition	Very Good	
Soil	Sand	
Rock Type	Conglomerate	
Fire Age	Old (6+ yr)	
Habitat	Medium Drainage Line	
Vegetation	*Enteropogon ramosus, Eulalia aurea, Aristida lazaridis* (P2) low open tussock grassland (on banks) with *Eucalyptus camaldulensis* subsp. refulgens, *Eucalyptus victrix, Eucalyptus xerothermica* mid open woodland over *Petalostylis labicheoides, Gossypium sturtianum, Santalum lanceolatum* mid to tall sparse shrubland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia dictyophleba	0.1	1.8		
Acacia pyrifolia var. *pyrifolia*	0.2	1.8		
Alternanthera denticulata var. denticulata	0.1	0.1		
Androcalva luteiflora	0.1	0.9		
Aristida lazaridis (P2)	0.2	0.4		
**Bidens bipinnata*	0.1	0.1		
Capparis lasiantha	0.1	0.6		
Capparis umbonata	0.1	3.5		
**Cenchrus ciliaris*	0.1	0.3		
Duperreya commixta	0.1	0		
Enteropogon ramosus	10	0.4		
Eucalyptus camaldulensis subsp. *refulgens*	3	13		
Eucalyptus victrix	2	10		
Eucalyptus xerothermica	1	9		Mostly up on the bank
Eulalia aurea	0.5	0.4		
Gossypium robinsonii	0.1	2.8		
Gossypium sturtianum var. *sturtianum*	0.1	1.6		
Isotropis iophyta	0.1	0.7		
**Malvastrum americanum*	0.1	0.2		
Petalostylis labicheoides	1	2.5		
Santalum lanceolatum	0.2	1.8		
Senna artemisioides subsp. x *artemisioides*	0.1	0.4		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Themeda triandra	0.1	0.4		
Triodia longiceps	0.1	0.3		
Triodia pungens	0.1	0.2		
**Vachellia farnesiana*	0.1	1.6		

Central Pilbara Hub **Site CPH-212**



Date	14/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	696789 mE;	7444106 mN
	118.921406 E	-23.100079 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillslope	
Vegetation	*Triodia vanleeuwenii, Triodia pungens* (+/- *Triodia wiseana*) low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Hakea lorea* subsp. *lorea, Acacia pruinocarpa* tall isolated shrubs.	
Notes	Vegetation consistent across this rolling hills.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia catenulata subsp. *occidentalis*	0.1	2		
Acacia maitlandii	0.1	1.6		
Acacia pruinocarpa	0.1	2.8		
Acacia pyrifolia var. *pyrifolia*	0.1	0.7		
Capparis lasiantha	0.1	0.4		
Eremophila latrobei subsp. *latrobei*	0.1	1.3		
Eriachne mucronata	0.1	0.2		
Eucalyptus gamophylla	0.1	4		
Eucalyptus leucophloia subsp. *leucophloia*	2	6.5		
Hakea lorea subsp. *lorea*	0.1	4.5		
Jasminum didymum subsp. *lineare*	0.1	0.4		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Senna artemisioides subsp. x *artemisioides*	0.1	0.6		
Senna glaucifolia	0.1	0.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.6		
Senna glutinosa subsp. *pruinosa*	0.1	1.2		
Triodia pungens	25	0.4		
Triodia vanleeuwenii	30	0.4		
Triodia wiseana	0.5	0.5		

Central Pilbara Hub **Site CPH-216**



Date	13/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	667195 mE;	7447948mN
	118.632134 E	-23.068642 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* mid hummock grassland with *Acacia arida, Acacia hamersleyensis* mid to tall sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia aptaneura	0.1	1.5		
Acacia arida	2	1.6		
Acacia bivenosa	0.1	1.8		
Acacia dictyophleba	0.1	1.4		
Acacia hamersleyensis	0.2	3.4		
Acacia maitlandii	0.1	1.6		
Acacia pyrifolia var. *pyrifolia*	0.1	1.4		
Duperreya commixta	0.1	0		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	6.5		
Hakea lorea subsp. *lorea*	0.1	2.4		
Petalostylis labicheoides	0.1	1.6		
Santalum lanceolatum	0.1	1.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Triodia wiseana	60	0.6		

Central Pilbara Hub **Site CPH-217**



Date	13/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	667646 mE;	7449811 mN
	118.636335 E	-23.051776 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* mid hummock grassland with *Acacia arida, Grevillea wickhamii* subsp. *hispidula, Petalostylis labicheoides* mid to tall sparse shrubland with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia arida	1	1.6		
Acacia pyrifolia var. *pyrifolia*	0.1	2.3		
Amphipogon sericeus	0.1	0.2		
Corymbia hamersleyana	0.1	5.5		
Eucalyptus gamophylla	0.1	2.4		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	5.5		
Goodenia stobbsiana	0.1	0.1		
Goodenia triodiophila	0.1	0.2		
Grevillea wickhamii subsp. *hispidula*	0.2	3		
Petalostylis labicheoides	0.1	2.4		
Ptilotus calostachyus	0.1	0.3		
Seringia exastia	0.1	0.3		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	0.1	0.4		
Tephrosia supina	0.1	0.1		
Triodia wiseana	55	0.6		

Central Pilbara Hub **Site CPH-218**



Date	13/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	667624 mE;	7451817 mN
	118.635905 E	-23.033668 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* low hummock grassland with *Acacia pruinocarpa, Acacia aptaneura, Corymbia deserticola* subsp. *deserticola* low isolated trees over *Acacia bivenosa, Eremophila longifolia, Eremophila forrestii* subsp. *forrestii* mid to tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.2		
Acacia aptaneura	0.1	4		
Acacia bivenosa	0.1	2.4		
Acacia pruinocarpa	0.2	4		
Acacia tenuissima	0.1	0.2		
Alternanthera nodiflora	0.1	0.2		
Aristida contorta	0.1	0.1		
Aristida inaequiglumis	0.1	0.3		
Aristida lazaridis (P2)	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Chrysopogon fallax	0.1	0.2		
Corymbia deserticola subsp. *deserticola*	0.2	5		
Cymbopogon ambiguus	0.1	0.2		
Digitaria ammophila	0.1	0.2		
Digitaria brownii	0.1	0.3		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	0.2		
Enneapogon lindleyanus	0.1	0.2		
Enneapogon polyphyllus	0.1	0.2		
Eremophila forrestii subsp. *forrestii*	0.1	1		
Eremophila longifolia	0.1	1.8		
Eulalia aurea	0.1	0.4		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Grevillea berryana	0.1	2.1		
Hakea lorea subsp. *lorea*	0.1	0.3		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Indigofera georgei	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Leichhardtia australis	0.1	0		
Psydrax latifolia	0.1	1.5		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.1		
Senna artemisioides subsp. *helmsii*	0.1	0.4		
Senna glutinosa subsp. x *luerssenii*	0.1	0.5		
Senna notabilis	0.1	0.1		
Sida fibulifera	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.4		
Solanum cleistogamum	0.1	0.3		
Teucrium teucriiflorum	0.1	0.2		
Themeda triandra	0.2	0.4		
Triodia pungens	35	0.4		

Central Pilbara Hub **Site CPH-219**



Date	13/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	668836 mE;	7451110 mN
	118.647799 E	-23.039924 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* low open hummock grassland with *Acacia marramamba, Acacia hamersleyensis, Senna glutinosa* subsp. *glutinosa* mid isolated shrubs with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia ancistrocarpa	0.1	1.1		
Acacia bivenosa	0.1	1.4		
Acacia hamersleyensis	0.2	1.6		
Acacia kempeana	0.1	1.9	CPH230.01	
Acacia maitlandii	0.1	1.7		
Acacia marramamba	0.5	1.3		
Acacia pyrifolia var. *pyrifolia*	0.1	1.9		
Amphipogon sericeus	0.1	0.2		
Aristida contorta	0.1	0.1		
Enneapogon polyphyllus	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	4		
Eulalia aurea	0.1	0.3		
Goodenia stobbsiana	0.1	0.1		
Halgania gustafsenii var. *gustafsenii*	0.1	0.3		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Indigofera monophylla	0.1	0.3		
Jasminum didymum subsp. *lineare*	0.1	0.8		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	0.1	2		
Ptilotus calostachyus	0.1	0.3		
Ptilotus exaltatus	0.1	0.1		
Ptilotus rotundifolius	0.1	0.4		
Scaevola amblyanthera var. *amblyanthera*	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	1.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.8		
Senna glutinosa subsp. *pruinosa*	0.1	1.5		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	1.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Solanum lasiophyllum	0.1	0.3		
Triodia wiseana	20	0.3		

Central Pilbara Hub **Site CPH-220**



Date	14/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	690353 mE;	7444572 mN
	118.858538 E	-23.096626 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Recent (0 to 2 yr)	
Habitat	Hillslope	
Vegetation	*Triodia vanleeuwenii, Triodia wiseana* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low isolated trees over *Acacia maitlandii, Acacia adoxa* var. *adoxa* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.2		
Acacia aptaneura	0.1	0.8		
Acacia hamersleyensis	0.1	0.1		
Acacia inaequilatera	0.1	1.7		
Acacia maitlandii	0.2	0.4		
Acacia pyrifolia var. *pyrifolia*	0.1	1.6		
Acacia sp. Indet	0.1	0.3		
Codonocarpus cotinifolius	0.1	0.9		
Corchorus sp. Indet	0.1	0.1		
Corymbia hamersleyana	0.1	2.2		
Eucalyptus leucophloia subsp. *leucophloia*	0.5	6		
Fimbristylis dichotoma	0.1	0.1		
Gompholobium oreophilum	0.1	0.3		
Goodenia triodiophila	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	3		
Indigofera monophylla	0.1	0.2		
Ptilotus astrolasius	0.1	0.2		
Ptilotus calostachyus	0.1	0.3		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.4		
Scaevola amblyanthera	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	1.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Senna glutinosa subsp. *pruinosa*	0.1	0.6		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.2		
Solanum lasiophyllum	0.1	0.3		
Triodia pungens	0.1	0.4		
Triodia vanleeuwenii	38	0.2		
Triodia wiseana	0.5	0.3		

Central Pilbara Hub **Site CPH-221**



Date	16/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	684361 mE;	7449437 mN
	118.799472 E	-23.053382 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Recent (0 to 2 yr)	
Habitat	Undulating Low Hills	
Vegetation	*Acacia aptaneura, Eucalyptus leucophloia* subsp. *leucophloia, Acacia catenulata* subsp. *occidentalis* low woodland over *Triodia pungens* low open hummock grassland with *Senna glutinosa* subsp. × *luerssenii* low isolated shrubs.	
Notes	Fire seemed to be low intensity and mainly hit the grasses while the trees and tall shrubs are okay.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	6	5.5		
Acacia ayersiana hybrid	0.2	4.5	CPH230.02	
Acacia catenulata subsp. *occidentalis*	1	4		
Acacia rhodophloia	0.1	3.8		
Acacia tetragonophylla	0.1	2.5		
Aristida contorta	0.1	0.1		
Aristida obscura	0.1	0.2		
Capparis lasiantha	0.1	0.6		
Eremophila forrestii subsp. *forrestii*	0.2	1.4		
Eremophila latrobei subsp. *latrobei*	0.1	0.5		
Eriachne mucronata	0.1	0.1		
Eucalyptus leucophloia subsp. *leucophloia*	5	6.5		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.2		
Exocarpos sparteus	0.1	1.2		
Hibiscus burtonii	0.1	0.4		
Hibiscus sturtii var. *platychlamys*	0.1	0.3		
Psydrax suaveolens	0.1	0.1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus rotundifolius	0.1	0.4		
Rhagodia eremaea	0.1	0.6		
Santalum lanceolatum	0.1	2.2		
Senna glaucifolia	0.1	0.9		
Senna glutinosa subsp. *glutinosa*	0.1	0.5		
Senna glutinosa subsp. x *luerssenii*	0.1	1.3		
Sida cardiophylla	0.1	0.2		
Sida fibulifera	0.1	0.1		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.6		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.3		
Teucrium teucriiflorum	0.1	0.5		
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	0.1	0.3		
Triodia pungens	12	0.3		

Central Pilbara Hub **Site CPH-226**



Date	14/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	667834 mE;	7446699 mN
	118.638509 E	-23.079859 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* mid open hummock grassland with *Acacia arida, Acacia hamersleyensis, Acacia maitlandii* mid to tall sparse shrubland with *Eucalyptus kingsmillii, Eucalyptus gamophylla, Eucalyptus leucophloia* subsp. *leucophloia* low open mallee woodland and isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*	0.1	0.3		
Acacia arida	4	1.4		
Acacia hamersleyensis	1	4		
Acacia maitlandii	0.5	1.8		
Acacia pyrifolia var. *pyrifolia*	0.1	1.4		
Amphipogon sericeus	0.1	0.3		
Cymbopogon ambiguus	0.1	0.2		
Dodonaea petiolaris	0.1	0.6		
Eucalyptus gamophylla	0.5	4		
Eucalyptus kingsmillii	1	3	CV23op.01	
Eucalyptus leucophloia subsp. *leucophloia*	0.5	5		
Goodenia stobbsiana	0.1	0.1		
Hakea lorea subsp. *lorea*	0.1	2.1		
Hibiscus coatesii	0.1	0.6		
Indigofera monophylla	0.1	0.3		
Paraneurachne muelleri	0.1	0.3		
Petalostylis labicheoides	0.2	3.5		
Ptilotus calostachyus	0.1	0.3		
Seringia exastia	0.1	0.3		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.3		
Triodia wiseana	20	0.5		

Central Pilbara Hub **Site CPH-227**



Date	14/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	665739 mE;	7445824 mN
	118.618155 E	-23.087973 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia pungens* mid hummock grassland with *Acacia wanyu, Acacia pruinocarpa* tall sparse shrubland over *Eremophila caespitosa* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ayersiana	0.1	1.7	CPH227.03	
Acacia bivenosa	0.1	2.1		
Acacia pruinocarpa	1	4.5		
Acacia rhodophloia	0.1	1.8		
Acacia tetragonophylla	0.1	0.4		
Acacia wanyu	4	2.4	CPH227.02	
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.3		
Cymbopogon ambiguus	0.1	0.3		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	0.3		
Eragrostis sp. Indet	0.1	0.2		
Eremophila caespitosa	0.2	0.3	CPH227.01	
Eremophila forrestii subsp. *forrestii*	0.1	0.7		
Eriachne mucronata	0.1	0.3		
Exocarpos sparteus	0.1	0.8		
Hibiscus burtonii	0.1	0.4		
Hibiscus coatesii	0.1	0.4		
Paraneurachne muelleri	0.1	0.3		
Psydrax suaveolens	0.1	2.2		
Ptilotus obovatus var. *obovatus*	0.1	1.5		
Senna artemisioides subsp. *helmsii*	0.1	0.8		
Senna artemisioides subsp. *oligophylla*	0.1	1.3		
Senna artemisioides subsp. x *artemisioides*	0.1	1.2		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Senna glutinosa subsp. x *luerssenii*	0.1	0.8		
Sida fibulifera	0.1	0.2		
Solanum cleistogamum	0.1	0.2		
Solanum lasiophyllum	0.1	0.3		
Solanum piceum	0.1	0.8	CPH227.04	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Triodia pungens	35	0.6		

Central Pilbara Hub **Site CPH-228**



Date	15/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	674800 mE;	7447508 mN
	118.706399 E	-23.071834 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillcrest/ Upper Hillslope	
Vegetation	*Triodia wiseana* low hummock grassland with *Corymbia hamersleyana, Eucalyptus kingsmillii, Eucalyptus leucophloia* subsp. *leucophloia, Eucalyptus gamophylla* low open mallee woodland and isolated trees over *Acacia maitlandii, Petalostylis labicheoides, Acacia hamersleyensis* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	0.1	0.7		
Acacia dictyophleba	0.1	0.3		
Acacia hamersleyensis	0.2	3		
Acacia maitlandii	0.2	2.2		
Acacia pyrifolia var. *pyrifolia*	0.1	0.4		
Codonocarpus cotinifolius	0.1	0.6		
Corchorus sp. Indet	0.1	0.2		
Corymbia hamersleyana	1	4.5		
Cymbopogon ambiguus	0.1	0.2		
Eremophila lachnocalyx	0.1	0.4		
Eucalyptus gamophylla	0.5	2		
Eucalyptus kingsmillii	1	3.5		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	2.4		
Hakea lorea subsp. *lorea*	0.1	1.8		
Paraneurachne muelleri	0.1	0.2		
Peripleura virgata	0.1	0.2		
Petalostylis labicheoides	0.2	3		
Pterocaulon sphacelatum	0.1	0.3		
Scaevola amblyanthera	0.1	0.2		
Senna artemisioides subsp. *oligophylla*	0.1	1		
Seringia exastia	0.1	0.3		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.1		
Triodia wiseana	40	0.3		

Central Pilbara Hub **Site CPH-229**



Date	12/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	680291 mE;	7468509 mN
	118.757535 E	-22.881622 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia vanleeuwenii, Triodia wiseana* low hummock grassland with *Acacia dictyophleba, Hakea lorea* subsp. *lorea, Acacia ancistrocarpa* mid to tall sparse shrubland with *Corymbia deserticola* subsp. *deserticola, Eucalyptus gamophylla* low isolated trees/ mallee trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa	0.1	1.2		
Acacia dictyophleba	1	3		
Acacia maitlandii	0.1	2.6		
Acacia pruinocarpa	0.1	2.2		
Acacia tenuissima	0.1	1.8		
Amphipogon sericeus	0.1	0.3		
Aristida holathera var. *holathera*	0.1	0.2		
Calytrix carinata	0.1	0.2		
Capparis lasiantha	0.1	1.5		
Cassytha capillaris	0.1	0		
Corymbia deserticola subsp. *deserticola*	0.2	4		
Cymbopogon ambiguus	0.1	0.3		
Dampiera candicans	0.1	0.3		
Digitaria brownii	0.1	0.3		
Duperreya commixta	0.1	0		
Eremophila longifolia	0.1	2.6		
Eucalyptus gamophylla	0.2	6		
Eulalia aurea	0.1	0.5		
Gompholobium oreophilum	0.1	0.4		
Goodenia stobbsiana	0.1	0.3		
Goodenia triodiophila	0.1	0.2		
Hakea lorea subsp. *lorea*	0.1	2.9		
Indigofera monophylla	0.1	0.2		
Jasminum didymum subsp. *lineare*	0.1	0.5		
Paraneurachne muelleri	0.1	0.3		
Ptilotus calostachyus	0.1	0.3		
Ptilotus gaudichaudii	0.1	0.2		
Scaevola parvifolia subsp. *pilbarae*	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Senna artemisioides subsp. *oligophylla*	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	2		
Seringia exastia	0.1	0.2		
Sida sp. Indet	0.1	0.3		
Solanum lasiophyllum	0.1	0.4		
Triodia vanleeuwenii	50	0.4		
Triodia wiseana	10	0.6		

Central Pilbara Hub **Site CPH-230**



Date	12/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	681395 mE;	7470816 mN
	118.768022 E	-22.860675 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia melvillei* mid hummock grassland with *Acacia kempeana, Acacia pruinocarpa, Acacia ayersiana* hybrid mid to tall open shrubland with *Corymbia deserticola* subsp. *deserticola* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ayersiana	0.1	1.9	CPH230.04	
Acacia ayersiana hybrid	0.5	2.2	CPH230.02	
Acacia bivenosa	0.1	2.1		
Acacia kempeana	10	2.3	CPH230.01	
Acacia minyura	0.1	1.8	CPH230.03	
Acacia pruinocarpa	0.5	3		
Aristida inaequiglumis	0.1	0.2		
Corymbia deserticola subsp. *deserticola*	0.5	5		
Digitaria brownii	0.1	0.3		
Duperreya commixta	0.1	0		
Eulalia aurea	0.1	0.3		
Euphorbia sp. Indet	0.1	0.3		
Exocarpos sparteus	0.2	1.6		
Jasminum didymum subsp. *lineare*	0.1	0.6		
Psydrax suaveolens	0.1	1.5		
Senna artemisioides subsp. *oligophylla*	0.1	1.6		
Triodia melvillei	38	0.5		
Triodia wiseana	0.5	2		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-231**



Date	11/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	100m x 25m
Location	MGA Zone 50	
	675706 mE;	7467092 mN
	118.713012 E	-22.894910 S
Veg Condition	Very Good	
Soil	Clayey Sand	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Medium Drainage Line	
Vegetation	*Bothriochloa ewartiana, Themeda triandra, Chrysopogon fallax, Eulalia aurea* mid tussock grassland with *Acacia aptaneura, Eucalyptus victrix* low woodland over *Santalum lanceolatum* tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon sp. Indet	0.1	0.1		
Acacia aptaneura	15	7		
Acacia tetragonophylla	0.1	2.2		
Alternanthera denticulata var. denticulata	0.1	0.1		
Amyema sanguinea	0.1	0		
**Bidens bipinnata*	0.1	0.2		
Bothriochloa ewartiana	25	0.6	CPH231.04	
Centipeda minima subsp. *macrocephala*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chloris pectinata	0.1	0.1	CPH231.08	
Chrysopogon fallax	0.5	0.4		
Convolvulus clementii	0.1	0.1		
**Datura leichhardtii*	0.1	0.2		
Dichanthium sericeum subsp. *humilius*	0.1	0.2		
**Echinochloa colona*	0.1	0.1	CPH231.05	
Enneapogon lindleyanus	0.1	0.2		
Eriachne flaccida	0.1	0.4	CPH231.02	
Eucalyptus victrix	0.5	8		
Eulalia aurea	0.5	0.5		
Euphorbia biconvexa	0.1	0.1		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1		
Goodenia nuda	0.1	0.1		
Grona muelleri	0.1	0.2	CPH231.06	
Hakea lorea subsp. *lorea*	0.1	2.5		
Indigofera linifolia	0.1	0.2		
Ipomoea plebeia	0.1	0		
Iseilema membranaceum	0.1	0.2		
Marsilea hirsuta	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Nellica maderaspatensis	0.1	0.1		
Nicotiana occidentalis	0.1	0.1		
Operculina aequisepala	0.1	0		
Oxalis sp. Pilbara (M.E. Trudgen 12725) (P2)	0.1	0.1	CPH231.01	
Paspalidium rarum	0.1	0.1		
Ptilotus exaltatus	0.1	0.2		
Ptilotus gaudichaudii	0.1	0.2		
Roebuckiella similis	0.1	0.1		
Rostellularia adscendens var. *latifolia* (P3)	0.1	0.1		
Santalum acuminatum	0.1	3		
Santalum lanceolatum	0.1	2.4		
Senna artemisioides subsp. x *artemisioides*	0.1	0.3		
Sida sp. L (A.M. Ashby 4202)	0.1	0.1		
Sida spinosa	0.1	0.3	CPH231.07	
Solanum ferocissimum	0.1	0.2		
Solanum piceum	0.1	0.5	CPH231.03	
Themeda triandra	15	0.5		
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)	0.1	0.1		

Central Pilbara Hub **Site CPH-232**



Date	11/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	675397 mE;	7468367 mN
	118.709853 E	-22.883429 S
Veg Condition	Very Good	
Soil	Light Clay	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* low open woodland over *Themeda triandra, Chrysopogon fallax, Eriachne benthamii, Aristida obscura* low sparse tussock grassland.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.1		
Acacia aptaneura	15	6.5		
Alternanthera denticulata var. denticulata	0.1	0.1		
Alternanthera nodiflora	0.1	0.1		
Anthobolus leptomerioides	0.1	0.4		
Aristida contorta	0.1	0.2		
Aristida inaequiglumis	0.1	0.4		
Aristida obscura	0.2	0.3		
**Bidens bipinnata*	0.1	0.2		
Boerhavia coccinea	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Chrysopogon fallax	1	0.4		
Digitaria ammophila	0.1	0.2		
Enchylaena tomentosa var. *tomentosa*	0.1	0.2		
Eriachne benthamii	0.5	0.4	CPH232.01	
Evolvulus alsinoides var. *villosicalyx*	0.1	0.1		
Fimbristylis dichotoma	0.1	0.1		
Goodenia nuda	0.1	0.2		
Hakea lorea subsp. *lorea*	0.1	4.5		
Hibiscus burtonii	0.1	0.3		
Iseilema membranaceum	0.1	0.1		
Nicotiana occidentalis	0.1	0.2		
Panicum decompositum	0.1	0.2		
Paraneurachne muelleri	0.1	0.4		
Paspalidium rarum	0.1	0.1		
Ptilotus gaudichaudii	0.1	0.2		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus roei	0.1	0.1		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	0.6		
Roebuckiella similis	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida fibulifera	0.1	0.2		
Solanum ferocissimum	0.1	0.2		
Teucrium teucriiflorum	0.1	0.4		
Themeda triandra	1	0.5		
Triodia pungens	0.1	0.4		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-233**



Date	11/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	676714 mE;	7468204 mN
	118.722711 E	-22.884755 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia melvillei* low hummock grassland with *Acacia aptaneura, Acacia pruinocarpa, Eucalyptus xerothermica* low open woodland over *Acacia minyura, Acacia aptaneura* mid to tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	2	4.5		Juveniles
Acacia minyura	0.2	2.5	CPH233.01	
Acacia pruinocarpa	0.2	4.5		
Acacia tenuissima	0.1	2		
Aristida obscura	0.1	0.2		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Enchylaena tomentosa var. *tomentosa*	0.1	0.2		
Eremophila lanceolata	0.1	0.2		
Eremophila latrobei subsp. *filiformis*	0.1	0.4		
Eucalyptus xerothermica	0.1	6.5		
Fimbristylis dichotoma	0.1	0.1		
Psydrax suaveolens	0.1	1.8		
Seringia exastia	0.1	0.2		
Teucrium teucriiflorum	0.1	0.4		
Triodia melvillei	50	0.4		
Vincetoxicum lineare	0.1	0		

Central Pilbara Hub **Site CPH-501**



Date	14/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Quadrat	50m x 50m
Location	MGA Zone 50	
	682514 mE;	7471492 mN
	118.778845 E	-22.854449 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	Dolerite	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Triodia vanleeuwenii, Triodia pungens* low hummock grassland with *Acacia atkinsiana, Senna glutinosa* subsp. *glutinosa* tall sparse shrubland with Eucal*yptus leucophloia* subsp. *leucophloia, Eucalyptus gamophylla* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia atkinsiana	2	3		
Acacia pachyacra	0.1	1		
Acacia pteraneura	0.1	4	CPH501.01	
Acacia sibirica	0.1	3		
Amphipogon sericeus	0.1	0.2		
Aristida contorta	0.1	0.1		
Aristida holathera var. *holathera*	0.1	0.2		
Duperreya commixta	0.1	0.1		
Eragrostis eriopoda	0.1	0.2	CPH-51-10	
Eucalyptus gamophylla	0.1	4.5		
Eucalyptus leucophloia subsp. *leucophloia*	1	7		
Euphorbia boophthona	0.1	0.3		
Goodenia stobbsiana	0.1	0.1		
Ptilotus calostachyus	0.1	1		
Ptilotus obovatus var. *obovatus*	0.1	0.3		
Ptilotus rotundifolius	0.1	0.4		
Ptilotus sp. Indet	0.1	0.1		Sterile
Scaevola parvifolia subsp. *pilbarae*	0.1	0.3		
Senna artemisioides subsp. *oligophylla*	0.1	0.4		
Senna glutinosa subsp. *glutinosa*	0.1	2		
Senna glutinosa subsp. x *luerssenii*	0.1	1.7		
Sida sp. Indet	0.1	0.2		Sterile
Solanum lasiophyllum	0.1	0.2		
Triodia pungens	0.1	0.6		
Triodia vanleeuwenii	60	0.3		
Vincetoxicum lineare	0.1	0.1		

1 Relevés

Central Pilbara Hub **Site CPHR-001**



Date	10/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Relevé	
Location	MGA Zone 50	
	711821 mE;	7463353 mN
	119.065462 E	-22.924478 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	Detritals	
Fire Age	Old (6+ yr)	
Habitat	Drainage Area/ Floodplain	

Vegetation *Eucalyptus xerothermica, Acacia pruinocarpa, Acacia aptaneura* low woodland over *Themeda triandra, ?Bothriochloa ewartiana, Eriachne mucronata* low to mid open tussock grassland with *Eremophila longifolia, Acacia pyrifolia* var. *pyrifolia, Petalostylis labicheoides* mid to tall sparse shrubland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
?Bothriochloa ewartiana			CPHR001.04	
Acacia aptaneura				
Acacia pruinocarpa				
Acacia pyrifolia var. *pyrifolia*				
Afrohybanthus aurantiacus				
**Bidens bipinnata*				
Boerhavia coccinea			CPHR001.07	
Capparis lasiantha				
Chrysocephalum gilesii			CPHR001.01 CPHR001.02	
Chrysopogon fallax				
Dipteracanthus australasicus subsp. *australasicus*				
Duperreya commixta				
Eremophila longifolia				
Eucalyptus xerothermica				
Euploca tenuifolia			CPHR001.06	
Evolvulus alsinoides var. *decumbens*				
Goodenia stellata			CPHR001.03	
Indigofera georgei				
Isotropis iophyta				
**Malvastrum americanum*				
Pterocaulon sphacelatum			CPH031.09	
Ptilotus obovatus var. *obovatus*				
Scaevola amblyanthera var. *centralis*			CPHR001.05	
Sida fibulifera				
Themeda triandra				

Central Pilbara Hub **Site CPHR-002**



Date	12/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Relevé	
Location	MGA Zone 50	
	711644 mE;	7465810 mN
	119.063396 E	-22.902315 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Breakaway	
Vegetation	*Triodia pungens* mid hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia hamersleyensis, Grevillea wickhamii* subsp. *hispidula* mid to tall scattered shrubs over *Eriachne mucronata* low scattered tussock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia hamersleyensis			CPHR02.01	
Eriachne mucronata				
Eucalyptus leucophloia subsp. *leucophloia*				
Grevillea wickhamii subsp. *hispidula*				
Sida sp. Golden calyces glabrous (H.N. Foote 32)			CPHR02.02	
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)			CPHR02.03	
Triodia pungens				
Vincetoxicum flexuosum			CPHR02.04	

Central Pilbara Hub **Site CPHR-003**



Date	14/03/2022	
Described by	Clinton van den Bergh, Darcy Reith	
Type	Relevé	
Location	MGA Zone 50	
	719191 mE;	7473889 mN
	119.135797 E	-22.828411 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Minor Drainage Line	

Vegetation *Acacia tumida* var. *pilbarensis*, *Grevillea wickhamii* subsp. *hispidula*, *Gossypium robinsonii* tall open shrubland over *Themeda triandra*, *Eriachne mucronata*, *Cymbopogon ambiguus* low sparse tussock grassland with *Triodia pungens* low scattered hummock grasses with *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* low scattered trees.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia tumida var. *pilbarensis*				
Afrohybanthus aurantiacus				
Androcalva luteiflora				
Arivela viscosa				
Corymbia hamersleyana				
Cymbopogon ambiguus				
Eriachne mucronata				
Eucalyptus leucophloia subsp. *leucophloia*				
Goodenia stobbsiana				
Gossypium robinsonii				
Grevillea wickhamii subsp. *hispidula*				
Nellica maderaspatensis				
Petalostylis labicheoides				
Themeda triandra				
Triodia pungens				

Central Pilbara Hub **Site CPHR-065**



Date	28/03/2022
Described by	Emily Eakin-Busher, Beth Loudon
Type	Relevé
Location	MGA Zone 50
	671349 mE; 7482862 mN
	118.668809 E -22.752962 S
Veg Condition	Very Good
Soil	Sandy Clay Loam
Rock Type	None Discernible
Fire Age	Recent (0 to 2 yr)
Habitat	Drainage Area/ Floodplain
Vegetation	*Triodia pungens* low open hummock grassland with *Eucalyptus gamophylla* low mallee trees.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia ancistrocarpa				
Acacia aptaneura			CPH080-04	
Acacia bivenosa				
Acacia dictyophleba				
Acacia elachantha			CPH088-07	
Acacia pachyacra				
Acacia steedmanii subsp. *borealis*				
Acacia tenuissima				
Bothriochloa ewartiana			CPH091-04	
Capparis lasiantha				
Chrysopogon fallax				
Duperreya commixta				
Eremophila longifolia				
Eucalyptus gamophylla				
Eucalyptus xerothermica				
Eulalia aurea				
Evolvulus alsinoides				
Gompholobium oreophilum				
Indigofera monophylla				
Jasminum didymum subsp. *lineare*				
Melhania oblongifolia				
Paraneurachne muelleri				
Ptilotus obovatus var. *obovatus*				
Ptilotus rotundifolius				
Senna artemisioides subsp. *oligophylla*				
Senna artemisioides subsp. x *artemisioides*			CPH095-02	
Senna pleurocarpa var. *angustifolia*				
Seringia exastia				
Themeda triandra				
Triodia pungens				

Central Pilbara Hub **Site CPHR-102**



Date	4/05/2022
Described by	Emma Marsh, P-L. de Kock
Type	Relevé
Location	MGA Zone 50
	689251 mE; 7452319 mN
	118.846825 E -23.026815 S
Veg Condition	Excellent
Soil	Sandy Clay Loam
Rock Type	BIF
Fire Age	Moderate (3 to 5 yr)
Habitat	Minor Drainage Line
Vegetation	*Corymbia hamersleyana* low open woodland over *Acacia monticola*, *Gossypium robinsonii* tall open shrubland over *Santalum lanceolatum, Androcalva luteiflora* open shrubland over *Themeda triandra* tall sparse tussock grassland with *Triodia pungens* low open hummock grassland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	1.2		
Abutilon lepidum	0.1	0.7		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	0.6		
Acacia adsurgens	0.1	1		
Acacia monticola	37	3.2		
Acacia pruinocarpa	0.1	1.5		
Acacia tenuissima	0.1	0.9		
Acacia trudgeniana	0.1	1.2		
Afrohybanthus aurantiacus	0.1	0.5		
Androcalva luteiflora	4	1.9		
Arivela viscosa	0.1	0.5		
**Bidens bipinnata*	0.1	0.1		
**Cenchrus ciliaris*	0.1	1		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.6		
Corymbia hamersleyana	12	9		
Cucumis variabilis	0.1	1.5		
Cymbopogon ambiguus	0.1	0.8		
Cynanchum floribundum	0.1	0.4		
Dodonaea viscosa subsp. *mucronata*	0.1	1.5		
Duperreya commixta	0.1	1.2		
Enneapogon lindleyanus	0.1	0.8		
Enneapogon polyphyllus	0.1	0.5		
Enneapogon robustissimus	0.1	0.9		
Eremophila longifolia	0.1	0.9		
Eriachne mucronata	0.1	0.4		
Eriachne pulchella	0.1	0.25		
Eucalyptus leucophloia subsp. *leucophloia*	0.1	3		
Glycine canescens	0.1	1		
Gomphrena cunninghamii	0.1	0.1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Goodenia stobbsiana	0.1	0.4		
Gossypium robinsonii	1	3		
Hibiscus coatesii	0.1	0.4		
Hibiscus sturtii var. *campylochlamys*	0.1	93		
Indigofera monophylla	0.1	0.4		
Jasminum didymum subsp. *lineare*	0.1	1.5		
Melhania oblongifolia	0.1	0.8		
Paraneurachne muelleri	0.1	0.4		
Polycarpaea longiflora	0.1	0.3		
Ptilotus astrolasius	0.1	0.5		
Ptilotus calostachyus	0.1	1.2		
Ptilotus exaltatus	0.1	0.9		
Ptilotus obovatus var. *obovatus*	0.1	0.9		
Rhynchosia minima	0.1	0.8		
Santalum lanceolatum	3	1.2		
Scaevola spinescens	0.1	0.8		
Senna artemisioides subsp. *oligophylla*	0.1	1.1		
Senna glutinosa subsp. *glutinosa*	0.1	1.1		
Senna glutinosa subsp. x *luerssenii*	0.1	1.2		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.7		
Solanum horridum	0.1	0.5		
Solanum lasiophyllum	0.1	0.5		
Tephrosia densa	0.1	0.6		
Themeda triandra	3	1		
Triodia pungens	15	0.4		

Central Pilbara Hub **Site CPHR-103**



Date 1/05/2022
Described by Emma Marsh, P-L. de Kock
Type Relevé
Location MGA Zone 50
688585 mE; 7451508 mN
118.840428 E -23.034205 S
Veg Condition Excellent
Soil Sandy Clay Loam
Rock Type BIF
Fire Age Moderate (3 to 5 yr)
Habitat Hillslope
Vegetation *Triodia brizoides* open hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland.
Notes *Triodia brizoides* continues to the lower slope.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa	0.5	1.4		
Capparis lasiantha	0.1	1		
Cymbopogon ambiguus	0.1	1		
Enneapogon polyphyllus	0.1	0.25		
Eremophila naaykensii (P3)	0.1	1.2		
Eriachne mucronata	0.1	0.3		
Eucalyptus leucophloia subsp. *leucophloia*	4	5		
Goodenia stobbsiana	0.1	0.5		
Hibiscus burtonii	0.1	0.4		
Maireana villosa	0.1	0.4		
Olearia stuartii	0.1	0.4		
Ptilotus exaltatus	0.1	0.4		
Ptilotus obovatus var. *obovatus*	0.5	0.8		
Ptilotus rotundifolius	0.1	0.1		
Senna ferraria	0.1	1.4		
Senna glutinosa subsp. *glutinosa*	0.1	1.6		
Senna glutinosa subsp. *pruinosa*	0.1	0.4		
Senna glutinosa subsp. x *luerssenii*	0.1	1		
Solanum horridum	0.1	0.1		
Solanum lasiophyllum	0.1	0.5		
Tribulus suberosus	0.1	0.8		
Triodia brizoides	36	0.3		
Triodia pungens	0.1	0.25		

Central Pilbara Hub **Site CPHR-106**



Date	1/05/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Relevé	
Location	MGA Zone 50	
	688459 mE;	7451239 mN
	118.839230 E	-23.036649 S
Veg Condition	Very Good	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Breakaway	

Vegetation *Eucalyptus leucophloia* subsp. *leucophloia* low isolated clumps of trees over *Acacia aptaneura, Acacia catenulata* subsp. *occidentalis* tall shrubland over *Rhagodia eremaea, Abutilon leucopetalum, Sida* sp. L (A.M. Ashby 4202), *Ptilotus obovatus* var. *obovatus* mid to low shrubs over *Eriachne mucronata, Triodia pungens* low sparse tussock and hummock grassland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon leucopetalum	8	0.7		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	1.7		
Acacia aptaneura	10	9		
Acacia bivenosa	0.1	0.8		
Acacia catenulata subsp. *occidentalis*	5	6		
Afrohybanthus aurantiacus	0.1	0.7		
Amyema fitzgeraldii	0.1	0.4		
Aristida burbidgeae	0.1	0.5		
Aristida obscura	0.1	0.25		
**Bidens bipinnata*	0.1	0.25		
Capparis lasiantha	0.1	0.4		
Cheilanthes austrotenuifolia	0.1	0.15		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.25		
Codonocarpus cotinifolius	0.1	1		
Cucumis variabilis	0.1	1.5		
Digitaria brownii	0.1	0.4		
Dipteracanthus australasicus subsp. *australasicus*	0.5	0.4		
Dodonaea pachyneura	0.1	1.5		
Duperreya commixta	0.1	0.6		
Enneapogon lindleyanus	0.1	0.8		
Enneapogon polyphyllus	0.1	0.3		
Enneapogon robustissimus	0.1	1		
Eremophila jucunda subsp. *pulcherrima*	0.1	1		
Eremophila latrobei subsp. *glabra*	0.1	1.9		
Eriachne mucronata	2	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	1	5		
Hibiscus burtonii	0.1	0.9		
Lepidium catapycnon (P4)	0.1	0.3		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Maireana planifolia	0.1	0.5		
Olearia stuartii	0.1	0.9		
Pterocaulon sphaeranthoides	0.1	0.8		
Ptilotus exaltatus	0.1	0.6		
Ptilotus obovatus var. *obovatus*	0.5	0.9		
Rhagodia eremaea	1	1		
Rhodanthe margarethae	0.1	0.1		
Rhynchosia minima	0.1	0.3		
Senna ferraria	0.1	1.8		
Senna glutinosa subsp. *glutinosa*	0.1	1.4		
Senna pleurocarpa var. *angustifolia*	0.1	0.6		
Sida cardiophylla	0.1	0.4		
Sida sp. Excedentifolia (J.L. Egan 1925)	0.1	0.25		
Sida sp. L (A.M. Ashby 4202)	3	0.25		
Solanum horridum	0.1	0.25		
Solanum lasiophyllum	0.1	0.6		
Teucrium teucriiflorum	0.1	0.9		
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	0.1	0.8		
Tribulus suberosus	0.1	0.5		
Triodia pungens	8	0.4		
Vincetoxicum lineare	0.1	1		

Central Pilbara Hub **Site CPHR-109**



Date 29/04/2022
Described by Emma Marsh, P-L. de Kock
Type Relevé
Location MGA Zone 50
688872 mE; 7450290 mN
118.843378 E -23.045177 S
Veg Condition Excellent
Soil Clay Loam
Rock Type BIF
Fire Age Recent (0 to 2 yr)
Habitat Footslope
Vegetation *Triodia vanleeuwenii*, *Triodia pungens* sparse hummock grassland with *Eucalyptus gamophylla* low open woodland over *Indigofera monophylla* sparse low shrubs.
Notes Soil is dark red brown.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum	0.1	0.5		
Acacia atkinsiana	0.1	0.6		
Afrohybanthus aurantiacus	0.1	0.5		
Amphipogon sericeus	0.1	0.25		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.6		
Digitaria brownii	0.1	0.4		
Eucalyptus gamophylla	3	2		
Goodenia microptera	0.1	0.4		
Hibiscus coatesii	0.1	0.9		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Indigofera monophylla	0.5	0.4		
Jasminum didymum subsp. *lineare*	0.1	1		
Paraneurachne muelleri	0.1	0.4		
Ptilotus astrolasius	0.1	0.6		
Ptilotus obovatus var. *obovatus*	0.1	0.6		
Ptilotus rotundifolius	0.1	0.9		
Senna artemisioides subsp. *oligophylla*	0.1	0.9		
Senna glutinosa subsp. *pruinosa*	0.25	1		
Senna glutinosa subsp. x *luerssenii*	0.1	0.5	CPHR109-01	
Sida arenicola	0.1	0.3		
Sida cardiophylla	0.1	0.5		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.9		
Solanum lasiophyllum	0.1	0.5		
Triodia pungens	1	0.3		
Triodia vanleeuwenii	8	0.25		
Vincetoxicum lineare	0.1	0.9		

Central Pilbara Hub **Site CPHR-110**



Date 28/04/2022
Described by Ryonen Butcher, P-L. de Kock
Type Relevé
Location MGA Zone 50
689986 mE; 7450464 mN
118.854220 E -23.043470 S
Veg Condition Very Good
Soil Silty Clay Loam
Rock Type BIF
Fire Age Moderate (3 to 5 yr)
Habitat Breakaway
Vegetation *Themeda* sp. Mt Barricade (M.E. Trudgen 2471), *Eriachne mucronata* open tussock grassland over *Eucalyptus leucophloia* subsp. *leucophloia* low woodland over *Abutilon* sp. Dioicum (A.A. Mitchell PRP 1618), *Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2) shrubland over *Olearia stuartii* low herbs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon amplum	0.1	0.4	CPHR110-10	
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	4	1.7		
Acacia cowleana	0.1	0.6		
Acacia hamersleyensis	0.1	2		
Afrohybanthus aurantiacus	0.1	0.5		
Amaranthus undulatus	0.1	0.1		
Aristida burbidgeae	0.1	0.5		
Aristida inaequiglumis	0.1	0.9	CPHR110-03	
Astrotricha hamptonii	0.1	1.2		
Boerhavia coccinea	0.1	0.3	CPHR110-11	
Capparis mitchellii	0.1	1.4		
Cheilanthes austrotenuifolia	0.1	0.1		
Corymbia ferriticola	0.1	5		
Cymbopogon ambiguus	0.1	0.5		
Digitaria ammophila	0.1	0.5	CPHR110-08	
Digitaria brownii	0.1	0.4		
Dodonaea viscosa subsp. *mucronata*	0.1	1.4		
Duperreya commixta	0.1	0.9		
Enchylaena tomentosa var. *tomentosa*	0.1	0.6		
Enneapogon polyphyllus	0.1	0.5		
Eremophila sp. West Angelas (S. van Leeuwen 4068) (P2)	0.1	1.2	CPHR110-02	Sterile
Eriachne mucronata	9	0.4		
Eucalyptus leucophloia subsp. *leucophloia*	12	9		
Euphorbia trigonosperma	0.1	0.3		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.25		
Gomphrena cunninghamii	0.1	0.3		
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)	2	1.6	CPHR110-01	
Jasminum didymum subsp. *lineare*	0.1	1		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Lobelia heterophylla subsp. *pilbarensis*	0.1	0.25		
Olearia stuartii	0.5	0.5		
Panicum decompositum	0.1	1.3	CPHR110-09	
Pellaea reynoldsii	0.1	0.1		
Pilbara trudgenii (P3)	0.1	0.5		
Prostanthera albiflora	0.1	1		
Ptilotus calostachyus	0.1	1		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Rhagodia eremaea	0.1	0.7		
Rhodanthe margarethae	0.1	0.1		
Santalum lanceolatum	0.1	1		
Senna glutinosa subsp. *glutinosa*	0.1	1.2		
Senna notabilis	0.1	0.3		
Sida sp. Excedentifolia (J.L. Egan 1925)	0.1	0.5		
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	0.1	0.4		
Solanum ferocissimum	0.1	0.1	CPHR110-06	
Solanum kentrocaule (P3)	0.1	1.1	CPHR110-04	
Solanum lasiophyllum	0.1	0.5		
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	12	0.9		

Central Pilbara Hub **Site CPHR-114**



Date	29/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Relevé	
Location	MGA Zone 50	
	692027 mE;	7449622 mN
	118.874239 E	-23.050842 S
Veg Condition	Excellent	
Soil	Sandy Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Minor Drainage Line	

Vegetation *Corymbia hamersleyana, Eucalyptus leucophloia* subsp. *leucophloia* low woodland over *Acacia monticola, Gossypium robinsonii, Androcalva luteiflora* mid to tall shrubs over *Indigofera monophylla, Corchorus lasiocarpus* subsp. *parvus* low open shrubland over *Themeda triandra* open tussock grassland with *Triodia pungens* hummock grasses.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon cunninghamii	0.1	0.8		
Abutilon fraseri subsp. *fraseri*	0.1	0.8		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	1.5		
Acacia maitlandii	0.1	0.5		
Acacia monticola	9	1.9		
Acacia pyrifolia var. *pyrifolia*	0.1	0.6		
Acacia tenuissima	0.1	0.9		
Afrohybanthus aurantiacus	0.1	0.4		
Androcalva luteiflora	3	1.7		
Arivela viscosa	0.1	0.4		
Capparis lasiantha	0.1	0.6		
Clerodendrum floribundum var. *floribundum*	0.1	0.9		
Codonocarpus cotinifolius	0.1	0.8		
Corchorus lasiocarpus subsp. *parvus*	2	0.5		
Corymbia hamersleyana	12	7		
Cymbopogon ambiguus	0.1	1		
Duperreya commixta	0.1	0.6		
Eriachne mucronata	0.1	0.5		
Eucalyptus leucophloia subsp. *leucophloia*	1	8		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.25		
Gompholobium oreophilum	0.1	0.6		
Gossypium robinsonii	1	1.6		
Hibiscus coatesii	0.1	0.6		
Hibiscus sturtii var. *campylochlamys*	0.1	0.5		
Indigofera monophylla	5	0.6		
Jasminum didymum subsp. *lineare*	0.1	1		
Melhania oblongifolia	0.1	0.5		
Nellica maderaspatensis	0.1	0.8		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Paraneurachne muelleri	0.1	0.4		
Ptilotus calostachyus	0.1	0.1		
Ptilotus exaltatus	0.1	0.5		
Ptilotus rotundifolius	0.1	0.5		
Rhynchosia minima	0.1	0.4		
Santalum lanceolatum	0.1	0.5		
Scaevola acacioides	0.1	0.6		
Senna artemisioides subsp. *oligophylla*	0.1	0.9		
Senna ferraria	0.1	0.7		
Senna glutinosa subsp. *glutinosa*	0.1	1.1		
Senna glutinosa subsp. x *luerssenii*	0.1	0.5		
Senna notabilis	0.1	0.5		
Seringia exastia	0.1	0.5		
Sida arenicola	0.1	0.9		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	0.25		
Sida sp. Supplejack Station (T.S. Henshall 2345)	0.1	0.4		
Solanum horridum	0.1	0.3		
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)	0.1	0.25	CPH113-02	
Themeda triandra	9	0.8		
Trichodesma zeylanicum var. *zeylanicum*	0.1	1.1		
Triodia pungens	8	0.5		

Central Pilbara Hub **Site CPHR-125**



Date	30/04/2022	
Described by	P-L. de Kock	
Type	Relevé	
Location	MGA Zone 50	
	684376 mE;	7444858 mN
	118.800168 E	-23.094720 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Claypan	
Vegetation	*Acacia aptaneura* tall open shrubland over *Ptilotus roei* sparse low shrubland over *Aristida contorta* tussock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura	1	5		
Acacia pruinocarpa	0.1	4		
Areocleome oxalidea	0.1	0.1		
Aristida contorta	2	0.25		
Aristida obscura	0.1	0.25		
Digitaria ammophila	0.1	0.5		
Evolvulus alsinoides var. *villosicalyx*	0.1	0.25		
Goodenia prostrata	0.25	0.1		
Lepidium echinatum	0.1	0.1		
Maireana villosa	0.1	0.5		
Paspalidium rarum	0.1	0.1		
Perotis rara	0.1	0.25		
Ptilotus roei	0.5	0.1		
Ptilotus schwartzii var. *schwartzii*	0.1	0.5		
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)	0.1	1.2		
Tribulus astrocarpus	0.1	0.01		

Central Pilbara Hub **Site CPHR-162**



Date	17/06/2022
Described by	Emily Eakin-Busher, Emma Marsh
Type	Relevé
Location	MGA Zone 50
	672929 mE; 7453241 mN
	118.687500 E -23.020267 S
Veg Condition	Very Good
Soil	Sandy Clay Loam
Rock Type	BIF
Fire Age	Moderate (3 to 5 yr)
Habitat	Stony Plain
Vegetation	*Triodia melvillei, Triodia pungens* open hummock grassland with *Paraneurachne muelleri, Themeda triandra* open tussock grassland with low sparse shrubland of *Indigofera georgei, Sida* spp., *Acacia pachyacra* scattered shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum				
Acacia dictyophleba				
Acacia pachyacra				
Aristida contorta				
Aristida inaequiglumis				
Digitaria ammophila				
Hibiscus burtonii				
Indigofera georgei				
Indigofera monophylla				
Paraneurachne muelleri				
Perotis rara				
Ptilotus calostachyus				
Ptilotus exaltatus				
Senna notabilis				
Sida cardiophylla				
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)				
Themeda triandra				
Tragus australianus				
Triodia melvillei				
Triodia pungens				

Central Pilbara Hub **Site CPHR-177**



Date	15/06/2022	
Described by	Emma Marsh, Ché Parker	
Type	Relevé	
Location	MGA Zone 50	
	677576 mE;	7465854 mN
	118.731378 E	-22.905891 S
Veg Condition	Poor	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura, Acacia incurvaneura* scattered trees (many dead) over *Iseilema membranaceum, Eriachne mucronata, Enneapogon polyphyllus* low isolated clumps of tussock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum				
Acacia aptaneura				
Acacia incurvaneura				
Aristida contorta				
Arivela viscosa				
**Bidens bipinnata*				
Boerhavia repleta				
Clerodendrum floribundum				
Commelina ensifolia			CPH179.06	
Convolvulus clementii			CPH179.02	
Corchorus tridens				
Cucumis variabilis				
Dactyloctenium radulans				
Digitaria brownii				
Enneapogon polyphyllus				
Euphorbia trigonosperma				
Iseilema membranaceum			CPH175.01	
Maireana planifolia				
**Malvastrum americanum*				
Polygala glaucifolia				
**Portulaca oleracea*				
Ptilotus exaltatus				
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)				
Sclerolaena cornishiana			CPH056.04	
Senna notabilis				
Sida sp. L (A.M. Ashby 4202)				
Solanum lasiophyllum				
Swainsona sp. Indet				Sterile

Central Pilbara Hub **Site CPH-045**



Date	15/06/2022	
Described by	Clinton van den Bergh, Emily Eakin-Busher	
Type	Relevé	
Location	MGA Zone 50	
	688575 mE;	7465052 mN
	118.838676 E	-22.911923 S
Veg Condition	Degraded	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Minor Drainage Line	
Vegetation	*Typha domingensis* tall rushland with *Acacia cowleana* tall sparse shrubland over *Stemodia grossa* low sparse shrubland with *Eucalyptus xerothermica, Acacia aptaneura, Acacia pruinocarpa* low isolated trees over *Themeda triandra* mid open tussock grassland.	
Notes	Discharge location down a minor drainage line so now results in flowing water and *Typha* thickets. Vegetation altered from discharge with weeds present.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura				
Acacia cowleana				
Acacia pruinocarpa				
Eucalyptus xerothermica				
Stemodia grossa				
Themeda triandra				
Typha domingensis				

Central Pilbara Hub **Site CPH-105**



Date 3/05/2022
Described by Emma Marsh, P-L. de Kock
Type Relevé
Location MGA Zone 50
688008 mE; 7451228 mN
118.834831 E -23.036800 S
Veg Condition Very Good
Soil Sandy Clay Loam
Rock Type BIF
Fire Age Moderate (3 to 5 yr)
Habitat Breakaway
Vegetation *Acacia aptaneura, Acacia catenulata* subsp. *occidentalis* low open woodland over *Triodia pungens* low sparse hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Eremophila jucunda* subsp. *pulcherrima* mid sparse shrubland over *Eriachne helmsii* tussock grasses.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*	0.1	1		
Abutilon macrum	0.1	0.2		
Abutilon otocarpum	0.1	0.4		
Acacia aptaneura	4	4.5		
Acacia catenulata subsp. *occidentalis*	3	6		
Acacia dictyophleba	0.1	0.5		
Acacia tenuissima	0.1	1		
Afrohybanthus aurantiacus	0.1	0.4		
Amaranthus cuspidifolius	0.1	0.1		
Aristida inaequiglumis	0.1	0.3	CPH105-01	
**Bidens bipinnata*	0.1	0.1		
Cheilanthes sieberi subsp. *sieberi*	0.1	0.1		
Codonocarpus cotinifolius	0.1	0.6		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.6		
Cymbopogon ambiguus	0.1	0.4		
Cynanchum floribundum	0.1	0		
Digitaria ammophila	0.1	0.4		
Digitaria brownii	0.1	0.5		
Dipteracanthus australasicus subsp. *australasicus*	0.1	0.4		
Dodonaea petiolaris	0.1	0.5		
Duperreya commixta	0.1	0		
Enneapogon polyphyllus	0.1	0.2		
Eremophila forrestii subsp. *forrestii*	0.5	1.2		
Eremophila jucunda subsp. *pulcherrima*	1	1		
Eriachne helmsii	1	0.4	CPH105-03	
Eucalyptus leucophloia subsp. *leucophloia*	3	6		
Euphorbia drummondii	0.1	0.1	CPH105-02	
Gomphrena cunninghamii	0.1	0.2		
Goodenia stobbsiana	0.1	0.4		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Hibiscus burtonii	0.1	1		
Hibiscus coatesii	0.1	0.4		
Maireana villosa	0.1	0.4		
Panicum effusum	0.1	0.4		
Paraneurachne muelleri	0.1	0.4		
Perotis rara	0.1	0.1		
Rhodanthe margarethae	0.1	0.1		
Senna glaucifolia	0.1	1		
Senna glutinosa subsp. *pruinosa*	0.1	1		
Senna glutinosa subsp. x *luerssenii*	0.1	1		
Sida echinocarpa	0.1	0.8		
Sida ectogama	0.1	0.5		
Sida sp. dark green fruits (S. van Leeuwen 2260)	0.1	0.4		
Sida sp. Excedentifolia (J.L. Egan 1925)	1	0.6		
Sida sp. L (A.M. Ashby 4202)	0.1	0.2		
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	0.9		
Solanum horridum	0.1	0.2		
Solanum lasiophyllum	0.1	0.5		
Tribulus suberosus	0.1	1		
Triodia pungens	8	0.3		

Central Pilbara Hub Site CPH-108



Date 30/04/2022
Described by Emma Marsh, P-L. de Kock
Type Relevé
Location MGA Zone 50
118.851148 E -23.040373 S
Veg Condition Excellent
Soil Sandy Loam
Rock Type BIF
Fire Age Old (6+ yr)
Habitat Gorge
Vegetation *Callitris columellaris, Corymbia ferriticola, Ficus brachypoda* mid to low woodland over *Abutilon* sp. Dioicum (A.A. Mitchell PRP 1618) tall sparse shrubland over *Triumfetta chaetocarpa, Ptilotus incanus* low isolated shrubs over *Aristida burbidgeae* low open tussock grassland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon amplum	0.1	0.4	CPHR108-03	
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	5	2		
Acacia pruinocarpa	0.5	5		
Afrohybanthus aurantiacus	0.1	0.4		
Amaranthus undulatus	0.1	0.1	CPH1R08-01	
Aristida burbidgeae	4	0.6		
Arivela viscosa	0.1	0.3		
**Bidens bipinnata*	0.1	0.1		
Brachychiton acuminatus	0.1	1.7		
Callitris columellaris	30	8.5		
Capparis mitchellii	0.1	0.5		
Cheilanthes austrotenuifolia	0.1	0.2		
Cheilanthes brownii	0.1	0.2	CPHR108-02	
Cheilanthes sieberi subsp. *sieberi*	0.1	0.2		
Clerodendrum floribundum var. *angustifolium*	0.1	0.3		
Corymbia ferriticola	10	10		
Cucumis variabilis	0.1	0		
Cymbopogon ambiguus	0.5	1.2		
Cynanchum floribundum	0.1	0.3		
Cyperus cunninghamii subsp. *cunninghamii*	0.1	0.3		
Dodonaea pachyneura	3	2.5		
Dodonaea viscosa subsp. *mucronata*	1	3		
Duperreya commixta	0.1	0		
Enchylaena tomentosa var. *tomentosa*	0.1	0.3		
Enneapogon robustissimus	0.2	0.6		
Eremophila jucunda subsp. *pulcherrima*	0.1	0.6		
Eremophila latrobei subsp. *glabra*	0.1	2		
Eremophila naaykensii (P3)	0.1	1		
Eriachne mucronata	1	0.6		
Euphorbia trigonosperma	0.1	0.2		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ficus brachypoda	6	8		
Glycine canescens	0.5	0		
Hibiscus coatesii	0.1	0.4		
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)	0.1	1.5		
Hibiscus sp. Mt Robinson (G. Byrne 3537)	0.1	2		
Jasminum didymum subsp. *lineare*	0.1	0		
Olearia stuartii	0.1	0.5		
Oxalis sp. Pilbara (M.E. Trudgen 12725) (P2)	0.1	0.1	CPHR108-05	
Pellaea reynoldsii	0.1	0.2		
Pilbara trudgenii (P3)	0.1	0.6		
Psydrax latifolia	0.1	2.5		
Psydrax suaveolens	0.1	1.5		
Pterocaulon sphacelatum	0.1	0.3		
Ptilotus incanus	0.1	0.5		
Ptilotus obovatus var. *obovatus*	0.1	0.5		
Rhagodia eremaea	0.1	1.2		
Rhodanthe margarethae	0.1	0.1		
Rhynchosia minima	0.1	0		
Rostellularia adscendens var. *latifolia* (P3)	0.1	0.3	CPHR108-07	
Senna venusta	0.1	0.3		
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	0.1	0.4		
**Sigesbeckia orientalis*	0.1	0.2		
Solanum cleistogamum	0.1	0.2	CPHR108-04	
Solanum ferocissimum	0.1	0.2		
Solanum kentrocaule (P3)	0.1	0.3		
Teucrium disjunctum	0.1	0.8	CPHR108-06	
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	1	0.6		
Tinospora smilacina	0.1	0		
Triumfetta chaetocarpa	0.1	0.5		

Central Pilbara Hub **Site CPH-112**



Date 28/04/2022
Described by Beth Loudon, Emma Marsh
Type Relevé
Location MGA Zone 50
690968 mE; 7449780 mN
118.863890 E -23.049539 S
Veg Condition Excellent
Soil Sandy Clay Loam
Rock Type Ironstone, Dolerite, Quartz
Fire Age 3-5 yrs
Habitat Minor Drainage Line
Vegetation *Triodia pungens, Themeda triandra* low open hummock and tussock grassland with *Tephrosia rosea* var. Fortescue creeks (M.I.H. Brooker 2186) low sparse shrubland with *Corymbia hamersleyana, Eucalyptus gamophylla* low isolated clumps of trees.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon macrum	0.1	0.2		
Acacia bivenosa	0.1	0.2		
Acacia pyrifolia var. *pyrifolia*	0.1	0.4		
Afrohybanthus aurantiacus	0.1	0.3		
Arivela viscosa	0.1	0.1		
Boerhavia coccinea	0.1	0.3		
Capparis lasiantha	0.1	0.9		
Corchorus crozophorifolius	0.1	0.5		
Corchorus lasiocarpus subsp. *parvus*	0.1	0.4		
Corymbia hamersleyana	1	5		
Crotalaria medicaginea var. *neglecta*	0.1	0.4		
Cucumis variabilis	0.1	0		
Digitaria brownii	0.1	0.4		
Enneapogon lindleyanus	0.1	0.6		
Eremophila longifolia	1	1		
Eriachne mucronata	0.1	0.4		
Eucalyptus gamophylla	2	1.6		
Euploca tanythrix	0.1	0.3	CPHR112-01	
Goodenia microptera	0.1	0.2		
Gossypium robinsonii	0.5	1.9		
Hibiscus burtonii	0.1	0.4		
Hibiscus sturtii var. *campylochlamys*	0.1	0.4		
Hibiscus sturtii var. *platychlamys*	0.1	0.3		
Indigofera monophylla	2	0.3		
Jasminum didymum subsp. *lineare*	0.1	0		
Leiocarpa semicalva subsp. *semicalva*	0.1	0.2	CPHR112-02	
Melhania oblongifolia	0.1	0.4		
Nellica maderaspatensis	0.1	0.9		
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)	0.1	0.1		
Paraneurachne muelleri	0.1	0.5		

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Ptilotus astrolasius	0.1	0.4		
Ptilotus calostachyus	0.1	1		
Ptilotus exaltatus	0.1	0.1		
Ptilotus obovatus var. *obovatus*	0.1	0.4		
Ptilotus rotundifolius	0.1	0.4		
Rhynchosia minima	0.1	0		
Scaevola spinescens	0.1	0.7		
Senna artemisioides subsp. *helmsii*	0.1	0.4		
Senna artemisioides subsp. *helmsii* x *oligophylla*				
Senna artemisioides subsp. *oligophylla*	0.1	0.6		
Senna glutinosa subsp. *glutinosa*	0.1	0.7		
Sida echinocarpa	0.1	0.4		
Sida fibulifera	0.1	0.2		
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.5	0.9		
Streptoglossa decurrens	0.1	0.4		
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	7	0.4		
Themeda triandra	3	0.5		
Trichodesma zeylanicum var. *zeylanicum*	0.1	0.1		
Triodia pungens	16	0.3		

Central Pilbara Hub **Site CPH-125**



Date	30/04/2022	
Described by	Emma Marsh, P-L. de Kock	
Type	Relevé	
Location	MGA Zone 50	
	684390 mE;	7444872 mN
	118.800301 E	-23.094595 S
Veg Condition	Excellent	
Soil	Clay Loam	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Other	
Vegetation	*Acacia aptaneura, Acacia pruinocarpa* low woodland over *Eriachne benthamii* low isolated tussock grasses.	
Notes	On clay plain.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon fraseri subsp. *fraseri*				
Abutilon otocarpum				
Acacia aptaneura				
Acacia pruinocarpa				
Anthobolus leptomerioides				
Aristida contorta				
Aristida obscura				
**Bidens bipinnata*				
Cheilanthes sieberi subsp. *sieberi*				
Chrysopogon fallax				
Enneapogon polyphyllus				
Eriachne benthamii				
Euphorbia drummondii				
Evolvulus alsinoides var. *villosicalyx*				
Goodenia nuda				
Goodenia prostrata				
Maireana planifolia				
Perotis rara				
Ptilotus gaudichaudii				
Ptilotus obovatus var. *obovatus*				
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)				
Roebuckiella similis				
Sida ectogama				
Sida fibulifera				
Solanum ferocissimum				
Vincetoxicum lineare				

Central Pilbara Hub **Site CPH-134**



Date	20/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Relevé	
Location	MGA Zone 50	
	681653 mE;	7445020 mN
	118.773574 E	-23.093561 S
Veg Condition	Very Good	
Soil	Light Clay	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Stony Plain	
Vegetation	*Acacia aptaneura, Acacia catenulata* subsp. *occidentalis* tall isolated clumps of shrubs over *Chrysopogon fallax, Aristida obscura, Aristida contorta, Digitaria brownii, Aristida inaequiglumis* mid isolated clumps of tussock grasses with *Triodia melvillei, Triodia pungens* low isolated hummock grasses.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura				
Acacia catenulata subsp. *occidentalis*				
Aristida contorta				
Aristida inaequiglumis				
Aristida obscura				
**Bidens bipinnata*				
Cheilanthes sieberi subsp. *sieberi*				
Chrysopogon fallax				
Codonocarpus cotinifolius				
Cymbopogon ambiguus				
Digitaria ammophila				
Digitaria brownii				
Enchylaena tomentosa var. *tomentosa*				
Hibiscus burtonii				
Maireana villosa				
Panicum effusum				
Psydrax latifolia				
Ptilotus obovatus var. *obovatus*				
Sida ectogama				
Solanum ferocissimum				

Central Pilbara Hub **Site CPH-135**



Date 20/04/2023
Described by Clinton van den Bergh, Kaylin Geelhoed
Type Relevé
Location MGA Zone 50
679955 mE; 7444512 mN
118.757060 E -23.098331 S
Veg Condition Very Good
Soil Light Medium Clay
Rock Type BIF
Fire Age Old (6+ yr)
Habitat Hardpan Plain
Vegetation *Triodia melvillei* low sparse hummock grassland with *Acacia aptaneura, Acacia catenulata* subsp. *occidentalis* tall isolated clumps of shrubs over *Psydrax latifolia, Sida ectogama* mid to tall isolated clumps of shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum				
Acacia aptaneura	0.5	3.6		
Aristida contorta				
Aristida inaequiglumis				
Aristida lazaridis (P2)				
Aristida obscura				
Codonocarpus cotinifolius				
Cucumis variabilis				
Cymbopogon ambiguus				
Digitaria ammophila				
Duperreya commixta				
Enneapogon lindleyanus				
Enneapogon polyphyllus				
Eremophila latrobei subsp. *filiformis*				
Hibiscus burtonii				
Maireana planifolia				
Panicum effusum				
Perotis rara				
Psydrax latifolia	0.5	2.6		
Pterocaulon sphacelatum				
Ptilotus obovatus var. *obovatus*				
Ptilotus roei				
Ptilotus schwartzii var. *schwartzii*				
Senna notabilis				
Sida ectogama	0.2	1.5		
Sida fibulifera				
Solanum lasiophyllum				
Triodia melvillei	3	0.5		

Central Pilbara Hub **Site CPH-136**



Date	20/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Relevé	
Location	MGA Zone 50	
	679712 mE;	7444904 mN
	118.754642 E	-23.094820 S
Veg Condition	Very Good	
Soil	Light Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aneura* low woodland over *Psydrax latifolia* mid isolated shrubs over *Maireana villosa, Enchylaena tomentosa* subsp. *tomentosa* low isolated chenopod shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aneura	15	5.5		
Aristida contorta				
Cheilanthes sieberi subsp. *sieberi*				
Enneapogon polyphyllus				
Maireana villosa				
Psydrax latifolia				
Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)				
Sida ectogama				
Solanum ferocissimum				
Triodia melvillei				

Central Pilbara Hub **Site CPH-141**



Date	19/04/2023	
Described by	Clinton van den Bergh, Kaylin Geelhoed	
Type	Relevé	
Location	MGA Zone 50	
	676901 mE;	7445320 mN
	118.727156 E	-23.091371 S
Veg Condition	Very Good	
Soil	Medium Clay	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* low isolated trees over *Ptilotus schwartzii* var. *schwartzii* low isolated shrubs over *Aristida contorta* low isolated tussock grasses.	
Notes	Potential poor rainfall resulting in low species cover.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura				
Aristida contorta				
Enchylaena tomentosa var. *tomentosa*				
Ptilotus schwartzii var. *schwartzii*				
Sclerolaena tetragona			CPH141.01	
Sida fibulifera				
Sida platycalyx				

Central Pilbara Hub **Site CPH-159**



Date	17/06/2022	
Described by	Clinton van den Bergh, Ché Parker	
Type	Relevé	
Location	MGA Zone 50	
	672731 mE;	7451556 mN
	118.685758 E	-23.035495 S
Veg Condition	Very Good	
Soil	Medium Clay	
Rock Type	None Discernible	
Fire Age	Old (6+ yr)	
Habitat	Claypan	
Vegetation	*Aristida inaequiglumis, Aristida contorta, Aristida jerichoensis* var. *subspinulifera* (P3), *Digitaria ammophila* low sparse tussock grassland with *Sclerolaena tetragona, Maireana villosa* low isolated chenopod shrubs with *Acacia aptaneura* mid to tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Areocleome oxalidea				
Aristida contorta				
Aristida jerichoensis var. *subspinulifera* (P3)			CPH169.01	
Boerhavia repleta			CPH159.01	
Cheilanthes sieberi subsp. *sieberi*				
Digitaria ammophila				
Enneapogon polyphyllus				
Eremophila lanceolata				
Euphorbia ferdinandi var. *ferdinandi*			CPH169.07	
Evolvulus alsinoides var. *villosicalyx*				
Goodenia prostrata				
Hibiscus burtonii				
Maireana villosa				
Perotis rara				
Ptilotus exaltatus				
Ptilotus obovatus var. *obovatus*				
Sclerolaena tetragona			CPH176.04	
Solanum lasiophyllum				

Central Pilbara Hub **Site CPH-194**



Date	12/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Relevé	
Location	MGA Zone 50	
	679857 mE;	7470387 mN
	118.753081 E	-22.864710 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillslope	
Vegetation	*Triodia vanleeuwenii, Triodia wiseana* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low isolated trees over *Acacia bivenosa, Hakea lorea* subsp. *lorea* mid to tall isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa				
Amphipogon sericeus				
Cassytha capillaris				
Corymbia hamersleyana				
Cymbopogon ambiguus				
Eucalyptus leucophloia subsp. *leucophloia*				
Gompholobium oreophilum				
Hakea lorea subsp. *lorea*				
Ptilotus rotundifolius				
Senna glutinosa subsp. *glutinosa*				
Senna glutinosa subsp. *pruinosa*				
Seringia exastia				
Triodia vanleeuwenii				
Triodia wiseana				

Central Pilbara Hub **Site CPH-198**



Date	12/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Relevé	
Location	MGA Zone 50	
	680089 mE;	7472776 mN
	118.755069 E	-22.843121 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Gully	
Vegetation	*Triodia wiseana, Triodia pungens* low open hummock grassland with *Aristida burbidgeae, Cymbopogon ambiguus* low sparse tussock grassland with *Eremophila naaykensii* (P3), *Ptilotus obovatus* var. *obovatus* mid to tall isolated shrubs with *Corymbia ferriticola, Brachychiton acuminatus* low isolated trees.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Aristida burbidgeae				
Astrotricha hamptonii				
Brachychiton acuminatus				
Capparis lasiantha				
Corymbia ferriticola				
Cymbopogon ambiguus				
Cynanchum floribundum				
Duperreya commixta				
Enneapogon lindleyanus				
Eremophila naaykensii (P3)				
Gomphrena cunninghamii				
Ptilotus obovatus var. *obovatus*				
Senna glutinosa subsp. *glutinosa*				
Senna venusta				
Triodia pungens				
Triodia wiseana				

Central Pilbara Hub **Site CPH-200**



Date	13/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Relevé	
Location	MGA Zone 50	
	675399 mE;	7454221 mN
	118.711481 E	-23.011152 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Recent (0 to 2 yr)	
Habitat	Hillslope	
Vegetation	*Triodia wiseana* low sparse hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia maitlandii, Acacia tenuissima, Acacia pyrifolia, Ptilotus rotundifolius* mid to low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia bivenosa				
Acacia maitlandii				
Acacia pyrifolia var. *pyrifolia*				
Acacia tenuissima				
Amphipogon sericeus				
Eucalyptus leucophloia subsp. *leucophloia*				
Gompholobium oreophilum				
Goodenia stobbsiana				
Hakea lorea subsp. *lorea*				
Indigofera monophylla				
Ptilotus calostachyus				
Ptilotus rotundifolius				
Senna glutinosa subsp. *glutinosa*				
Senna glutinosa subsp. *pruinosa*				
Seringia exastia				
Triodia wiseana				

Central Pilbara Hub **Site CPH-201**



Date	15/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Relevé	
Location	MGA Zone 50	
	675183 mE;	7452050 mN
	118.709622 E	-23.030781 S
Veg Condition	Excellent	
Soil	Silty Loam	
Rock Type	Conglomerate	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Hillslope	
Vegetation	*Triodia wiseana* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low isolated trees over *Acacia maitlandii, Acacia pyrifolia, Acacia hamersleyensis, Senna glutinosa* subsp. *glutinosa* mid to tall isolated shrubs.	
Notes	Vegetation description is based on small unburnt patch, which would be the prominent vegetation type normally.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia hamersleyensis				
Acacia maitlandii				
Acacia pyrifolia var. *pyrifolia*				
Corymbia deserticola subsp. *deserticola*				
Corymbia hamersleyana				
Cymbopogon ambiguus				
Duperreya commixta				
Enchylaena tomentosa var. *tomentosa*				
Eriachne ciliata				
Eriachne mucronata				
Eucalyptus leucophloia subsp. *leucophloia*				
Senna glutinosa subsp. *glutinosa*				
Seringia exastia				
Triodia wiseana				

Central Pilbara Hub **Site CPH-202**



Date	15/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Relevé	
Location	MGA Zone 50	
	676145 mE;	7451383 mN
	118.719078 E	-23.036700 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Moderate (3 to 5 yr)	
Habitat	Stony Plain	
Vegetation	*Triodia wiseana, Triodia pungens* low sparse hummock grassland with *Eucalyptus xerothermica, Eucalyptus gamophylla* low isolated trees over low isolated shrubs and herbs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia dictyophleba				
Amphipogon sericeus				
Capparis lasiantha				
Corchorus sp. Indet				
Eucalyptus gamophylla				
Eucalyptus xerothermica				
Hibiscus sturtii				
Indigofera monophylla				
Paraneurachne muelleri				
Ptilotus astrolasius				
Ptilotus calostachyus				
Ptilotus exaltatus				
Senna artemisioides subsp. *oligophylla*				
Senna glutinosa subsp. *glutinosa*				
Senna glutinosa subsp. x *luerssenii*				
Triodia pungens				
Triodia wiseana				

Central Pilbara Hub Site CPH-206



Date	16/06/2023
Described by	Clinton van den Bergh, Georgina Mattner
Type	Relevé
Location	MGA Zone 50 685569 mE; 7449476 mN 118.811253 E -23.052898 S
Veg Condition	Excellent
Soil	Silty Clay Loam
Rock Type	BIF
Fire Age	Moderate (3 to 5 yr)
Habitat	Hillcrest/ Upper Hillslope
Vegetation	*Triodia pungens* low hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Senna* spp. mid isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia pruinocarpa				
Amphipogon sericeus				
Codonocarpus cotinifolius				
Eriachne mucronata				
Eucalyptus leucophloia subsp. *leucophloia*				
Paraneurachne muelleri				
Ptilotus obovatus var. *obovatus*				
Ptilotus rotundifolius				
Senna glutinosa subsp. *glutinosa*				
Senna glutinosa subsp. *pruinosa*				
Senna glutinosa subsp. x *luerssenii*				
Sida cardiophylla				
Solanum cleistogamum				
Triodia pungens				

Central Pilbara Hub **Site CPH-214**



Date 14/06/2023
Described by Clinton van den Bergh, Georgina Mattner
Type Relevé
Location MGA Zone 50
667338 mE; 7445687 mN
118.633782 E -23.089049 S
Veg Condition Excellent
Soil Silty Clay Loam
Rock Type BIF
Fire Age Moderate (3 to 5 yr)
Habitat Stony Plain
Vegetation *Triodia pungens* low open hummock with *Acacia wanyu, Acacia pruinocarpa, Acacia aptaneura* mid to tall sparse shrubland over *Ptilotus obovatus* var. *obovatus* low isolated shrubs.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia dictyophleba				
Acacia pruinocarpa				
Acacia wanyu			CPH227.02	
Aristida contorta				
Cymbopogon ambiguus				
Duperreya commixta				
Enchylaena tomentosa var. *tomentosa*				
Eremophila forrestii subsp. *forrestii*				
Exocarpos sparteus				
Ptilotus rotundifolius				
Senna artemisioides subsp. *helmsii*				
Senna artemisioides subsp. x *artemisioides*				
Senna glutinosa subsp. *glutinosa*				
Senna glutinosa subsp. x *luerssenii*				
Triodia pungens				

Central Pilbara Hub **Site CPH-224**



Date	13/06/2023	
Described by	Clinton van den Bergh, Georgina Mattner	
Type	Relevé	
Location	MGA Zone 50	
	672643 mE;	7454063 mN
	118.684617 E	-23.012873 S
Veg Condition	Excellent	
Soil	Silty Clay Loam	
Rock Type	BIF	
Fire Age	Recent (0 to 2 yr)	
Habitat	Hillslope	
Vegetation	*Triodia wiseana* low sparse hummock grassland with *Eucalyptus leucophloia* subsp. *leucophloia* low isolated trees over *Acacia hamersleyensis, Senna glutinosa* subsp. *pruinosa, Acacia maitlandii* mid isolated shrubs with *Seringia exastia* low isolated shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia adoxa var. *adoxa*				
Acacia hamersleyensis				
Acacia maitlandii				
Amphipogon sericeus				
Dampiera candicans				
Eucalyptus leucophloia subsp. *leucophloia*				
Goodenia stobbsiana				
Grevillea wickhamii				
Hakea lorea subsp. *lorea*				
Indigofera monophylla				
Ptilotus calostachyus				
Ptilotus exaltatus				
Senna glutinosa subsp. *pruinosa*				
Seringia exastia				
Triodia wiseana				

Central Pilbara Hub **Site CVR-01**



Date	16/06/2022
Described by	Clinton van den Bergh, Ché Parker
Type	Relevé
Location	MGA Zone 50
	682778 mE; 7466845 mN
	118.781962 E -22.896376 S
Veg Condition	Very Good
Soil	Light Medium Clay
Rock Type	None Discernible
Fire Age	Old (6+ yr)
Habitat	Hardpan Plain
Vegetation	*Acacia aptaneura* low scattered trees to isolated patches of trees over *Aristida contorta, Fimbristylis dichotoma* mixed scattered tussock grassland/ sedgeland with scattered herbland.

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Acacia aptaneura				
Aristida contorta				
Fimbristylis dichotoma				

Central Pilbara Hub **Site EMR-01**



Date	15/06/2022	
Described by	Emma Marsh, Ché Parker	
Type	Relevé	
Location	MGA Zone 50	
	677182 mE;	7466155 mN
	118.727507 E	-22.903210 S
Veg Condition	Very Good	
Soil	Clay Loam	
Rock Type	BIF	
Fire Age	Old (6+ yr)	
Habitat	Hardpan Plain	
Vegetation	*Acacia aptaneura* open woodland over *Chrysopogon fallax, Enneapogon polyphyllus* open tussock grassland with *Maireana planifolia, Mariana villosa* scattered low shrubs.	

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Abutilon otocarpum				
Acacia aptaneura				
Acacia incurvaneura				
Aristida contorta				
Aristida inaequiglumis				
**Bidens bipinnata*				
Boerhavia sp. Indet				Sterile
Cheilanthes sieberi subsp. *sieberi*				
**Chloris virgata*				
Chrysopogon fallax				
Commelina ensifolia			CPH179.06	
Convolvulus clementii			CPH179.02	
Dactyloctenium radulans				
Dysphania rhadinostachya				
Eremophila lanceolata				
Eriachne mucronata				
Evolvulus alsinoides var. *villosicalyx*				
Goodenia prostrata				
Iseilema membranaceum			CPH175.01	
Maireana planifolia				
Maireana villosa				
**Malvastrum americanum*				
Perotis rara				
Polygala glaucifolia				
**Portulaca oleracea*				
Ptilotus roei				
Rhagodia eremaea				
Roebuckiella similis			CPH179.04	
Salsola australis				
Sclerolaena cornishiana			CPH178-04	
Sida platycalyx				

Site Taxa	Cover (%)	Height (m)	Specimen #	Notes
Sida sp. L (A.M. Ashby 4202)				
Solanum lasiophyllum				
Tragus australianus				
Tribulus astrocarpus			CPH176.05	

Appendix G: Site by species matrix

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Abutilon amplum																																									
Abutilon cryptopetalum																																									
Abutilon cunninghamii																																									
Abutilon fraseri subsp. *fraseri*																						x						x						x		x					
Abutilon lepidum																																									
Abutilon macrum																																									
Abutilon otocarpum											x										x									x		x	x		x					x
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)																																									
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)																														x				x							
Acacia adoxa var. *adoxa*		x	x	x			x		x		x	x				x			x	x			x	x			x		x				x				x	x	x	
Acacia adsurgens																						x	x	x		x	x	x	x		x		x	x	x	x					
Acacia ancistrocarpa		x				x		x	x						x			x				x	x	x	x		x	x				x			x				x	
Acacia aneura																						x																			
Acacia aptaneura																						x				x		x		x	x		x		x	x					x
Acacia arida																																									
Acacia atkinsiana																																									
Acacia ayersiana																																									
Acacia bivenosa		x			x					x					x		x	x			x	x	x	x	x	x	x	x			x	x		x	x				x	
Acacia catenulata subsp. *occidentalis*																																									
Acacia colei var. *colei*																											x									x					
Acacia coriacea subsp. *pendens*	x																																								
Acacia cowleana																																									
Acacia dictyophleba	x	x			x																							x		x					x					x
Acacia elachantha																																									
Acacia hamersleyensis				x										x																											
Acacia hilliana		x	x	x			x						x		x	x			x	x				x													x	x			
Acacia inaequilatera					x	x																		x		x	x					x	x				x	x		x	
Acacia incurvaneura																																									
Acacia kempeana																																									
Acacia macraneura																																									
Acacia maitlandii	x			x	x	x		x				x		x				x			x					x		x			x			x	x	x	x			x	
Acacia marramamba																																									
Acacia minyura																																									
Acacia monticola		x									x	x		x		x							x	x										x			x				
Acacia pachyacra					x						x												x	x																	
Acacia pruinocarpa		x					x		x				x			x						x				x		x		x	x		x	x	x	x			x	x
Acacia pteraneura																																									
Acacia pyrifolia var. *morrisonii*																																									
Acacia pyrifolia var. *pyrifolia*	x																				x							x		x				x	x					
Acacia rhodophloia																																									
Acacia sericophylla																																									
Acacia sibirica																										x															
Acacia steedmanii subsp. *borealis*																																									
Acacia synchronicia																																									
Acacia tenuissima									x									x						x		x	x				x			x						

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Acacia tetragonophylla	x																																								
Acacia trudgeniana																																									
Acacia tumida var. *pilbarensis*	x							x		x	x	x		x		x					x											x	x								
Achyranthes aspera																																									
Acrachne racemosa																																		x							
Afrohybanthus aurantiacus	x							x			x	x		x		x					x	x		x		x		x					x	x	x	x					
Alternanthera angustifolia																																									
Alternanthera denticulata					x																x	x									x				x		x				
Alternanthera nana	x																																								x
Amaranthus cuspidifolius																																									
Amaranthus undulatus																																									
Ammannia multiflora																																									
Amphipogon sericeus									x							x				x												x									
Amyema hilliana																																									
Androcalva luteiflora	x				x			x			x	x		x		x					x						x			x			x	x	x	x					
Anthobolus leptomerioides																																		x							
Areocleome oxalidea																																									
Aristida burbidgeae																																									
Aristida contorta		x				x															x	x	x							x	x		x	x							x
Aristida holathera var. *holathera*								x				x				x					x										x		x								
Aristida inaequiglumis	x								x													x				x					x		x	x		x					x
Aristida jerichoensis var. *subspinulifera*																																									
Aristida lazaridis	x																																								
Aristida obscura																																									x
Aristida pruinosa																																									
Arivela uncifera																																									
Arivela viscosa	x			x										x							x													x							
Astrotricha hamptonii														x																												
Atalaya hemiglauca																						x																			
Avicennia marina				x																																					
Bergia perennis																																									
Blumea tenella																																									
Boerhavia coccinea	x				x																x	x												x			x				
Boerhavia repleta																																									
Bonamia erecta											x										x																				
Bonamia pilbarensis												x																									x	x			
Bothriochloa ewartiana																																									
Brachychiton acuminatus																																									
Brunonia sp. Long hairs (D.E. Symon 2440)																																									
Bulbostylis turbinata																																									
Calandrinia ptychosperma																																									
Calandrinia pumila																																									
Calotis hispidula																																									
Calotis plumulifera																																									
Calytrix carinata													x																												

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Capparis lasiantha															x		x	x				x						x		x				x	x	x					
Capparis mitchellii																																									
Cassytha capillaris																																									
Cassytha filiformis																																			x						
Centipeda minima subsp. *macrocephala*																																									
Cheilanthes brownii						x								x																											
Cheilanthes sieberi subsp. *sieberi*		x																				x																			x
Chloris pectinata																																									
Chrysocephalum apiculatum																																									
Chrysocephalum gilesii																																		x		x					
Chrysopogon fallax	x																				x	x								x	x				x					x
Clerodendrum floribundum												x		x																						x					
Clerodendrum tomentosum var. *lanceolatum*				x								x																												
Codonocarpus cotinifolius																															x									
Commelina ensifolia																																								
Convolvulus clementii																																								
Convolvulus remotus																																								
Corchorus crozophorifolius																																								
Corchorus lasiocarpus				x			x		x		x	x			x	x				x				x										x	x					
Corchorus sidoides subsp. *sidoides*																																								
Corchorus tridens	x				x																x																			
Corymbia candida																																								
Corymbia deserticola subsp. *deserticola*			x										x							x						x	x		x										
Corymbia ferriticola														x																											
Corymbia hamersleyana	x			x		x	x	x			x	x	x	x		x			x		x			x				x						x		x	x			x	
Crassula tetramera																																									
Crotalaria medicaginea var. *neglecta*																																									
Cucumis variabilis	x				x							x									x																			x
Cymbopogon ambiguus	x				x			x				x		x			x							x				x						x			x			x	
Cymbopogon obtectus																																									
Cynanchum floribundum																																									
Cynanchum pedunculatum																																									
Cyperus cunninghamii																																									
Cyperus iria																																									
Dactyloctenium radulans																																									
Dampiera candicans																x																							x			
Dendrophyllanthus erwinii																																									
Dichanthium sericeum																																									
Dicrastylis cordifolia																																									
Digitaria ammophila																																									x
Digitaria brownii	x																				x	x		x				x			x			x		x				x
Digitaria ctenantha																																		x							
Diplopeltis stuartii var. *stuartii*																																									
Dipteracanthus australasicus																												x		x					x						
Dodonaea coriacea															x																										

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Dodonaea lanceolata								x			x			x														x							x						
Dodonaea pachyneura																																										
Dodonaea viscosa																																		x		x						
Dolichocarpa crouchiana																																										
Duperreya commixta	x			x	x			x			x	x		x			x				x	x		x		x		x		x	x		x	x	x	x					x
Dysphania glomulifera subsp. *eremaea*																																										
Dysphania kalpari																																										
Dysphania melanocarpa																																										
Dysphania rhadinostachya																																										
Dysphania glomulifera subsp. *eremaea*																																										
Enchylaena tomentosa var. *tomentosa*																						x									x			x								
Enneapogon caerulescens																																										
Enneapogon lindleyanus	x																				x	x		x				x						x		x	x					
Enneapogon polyphyllus																														x	x		x	x								x
Enneapogon robustissimus																																										
Enteropogon ramosus																																										
Eragrostis cumingii																					x															x						
Eragrostis eriopoda																																										x
Eragrostis leptocarpa																																										
Eragrostis olida												x									x																					
Eragrostis pergracilis																																										
Eragrostis setifolia																																										
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109)																																										
Eragrostis tenellula																																										
Eragrostis xerophila																																										
Eremophila clarkei																																										
Eremophila flaccida																																										
Eremophila forrestii																						x								x	x											
Eremophila fraseri subsp. *fraseri*																																										
Eremophila jucunda subsp. *pulcherrima*																																										
Eremophila lachnocalyx																																										
Eremophila lanceolata																																										
Eremophila latrobei			x				x				x		x		x	x							x																	x	x
Eremophila longifolia	x				x										x						x	x												x							
Eremophila magnifica subsp. *magnifica*																																										
Eremophila platycalyx																																										
Eriachne benthamii	x							x													x	x																				
Eriachne ciliata										x				x									x																			
Eriachne flaccida																																										
Eriachne helmsii																																	x			x						
Eriachne lanata				x						x		x			x	x																	x							x	
Eriachne mucronata		x		x	x			x	x			x		x			x						x	x		x				x	x		x	x	x		x	x			
Eriachne pulchella		x																																								
Eucalyptus gamophylla											x													x		x				x			x	x		x					
Eucalyptus leucophloia subsp. *leucophloia*		x	x	x		x	x	x		x				x	x		x	x	x				x	x	x	x	x	x			x	x		x	x		x			x	

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Eucalyptus repullulans																																								
Eucalyptus trivalva																																								
Eucalyptus victrix	x																																						
Eucalyptus xerothermica					x																	x						x		x			x	x	x					
Eulalia aurea	x							x			x																	x		x			x	x		x				x
Euphorbia australis	x																				x													x						
Euphorbia biconvexa	x			x																																				
Euphorbia boophthona																																								
Euphorbia drummondii																																								x
Euphorbia ferdinandi var. *ferdinandi*																																								
Euphorbia tannensis subsp. *eremophila*																																								x
Euphorbia trigonosperma														x							x									x				x						
Euploca inexplicita																																								
Euploca pachyphylla													x																												
Euploca tanythrix																																								
Euploca tenuifolia																																								
Evolvulus alsinoides	x	x			x			x													x													x	x	x	x				x
Exocarpos sparteus																																								
Ficus brachypoda												x		x																											
Ficus platypoda																																								
Fimbristylis dichotoma		x	x	x																												x							x	x
Gastrolobium grandiflorum								x			x			x																											
Glycine canescens	x																																							
Gompholobium oreophilum							x							x		x				x																					
Gomphrena canescens																																								
Gomphrena cunninghamii				x																																				
Gomphrena kanisii																																								
Gomphrena lanata																																								
Gomphrena cunninghamii																																								
Goodenia microptera					x																									x	x		x							
Goodenia muelleriana	x	x			x																														x					
Goodenia nuda																																								
Goodenia prostrata																																								
Goodenia stellata																														x										
Goodenia stobbsiana			x						x				x						x				x				x				x		x		x				x		
Goodenia triodiophila			x				x		x				x		x	x			x	x			x				x												x		
Gossypium australe	x				x																														x					
Gossypium robinsonii	x							x			x	x		x							x	x	x			x		x						x	x		x				
Gossypium sturtianum var. *sturtianum*																																									
Grevillea berryana	x																												x											
Grevillea wickhamii							x	x	x			x		x		x					x			x														x	x	x	
Hakea chordophylla				x			x		x										x	x				x		x	x				x	x		x				x		
Hakea loreus subsp. *loreus*													x		x								x				x		x								x	x		x
Halgania gustafsenii																																									
Hibiscus burtonii																	x					x								x	x		x							x

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Hibiscus coatesii				x												x								x													x				
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708)																																									
Hibiscus sturtii	x											x				x					x	x								x			x	x		x					x
Indigofera georgei																					x	x						x						x	x	x					
Indigofera monophylla							x	x	x		x	x	x	x		x				x				x		x	x						x	x			x		x		
Indigofera rugosa	x					x																																			
Ipomoea muelleri																																									
Ipomoea polymorpha																																									
Iseilema eremaeum																																									
Iseilema membranaceum																																		x	x						
Isotropis atropurpurea																																									
Isotropis iophyta	x																				x							x													
Jasminum didymum subsp. *lineare*	x			x	x		x	x	x		x	x	x	x		x	x					x		x		x		x	x	x	x		x	x	x	x	x				
Josephinia eugeniae																																									
Leichhardtia australis																																									
Lepidium echinatum																																									
Lepidium phlebopetalum																																									
Lysiana murrayi																																									
Maireana planifolia																																									
Maireana villosa																																	x								x
Maireana planifolia																																									
Maytenus sp. Mt Windell (S. van Leeuwen 846)																																									
Melhania oblongifolia					x									x					x		x													x			x				
Menkea villosula																																									
Mimulus gracilis																																									
Mirbelia viminalis												x				x			x																							
Muelleranthus obovatus																																									
Nellica maderaspatensis					x																x													x	x						
Nicotiana rosulata																																									
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)																																									
Olearia stuartii																																									
Ophioglossum lusitanicum																																									x
Oxalis perennans																																									
Panicum decompositum																																									x
Panicum effusum																																									
Paraneurachne muelleri	x					x					x	x		x						x	x	x		x		x		x		x	x			x	x	x	x				x
Paspalidium clementii																																									
Paspalidium constrictum																																									
Paspalidium rarum																																									
Pellaea reynoldsii																																									
Peplidium muelleri																																									
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)																																									
Peripleura arida																																									
Peripleura obovata									x																					x											
Perotis rara																					x													x							

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Petalostylis labicheoides								x			x	x		x		x					x							x		x	x				x	x					
Pluchea dentex								x																											x							
Pluchea dunlopii																																										
Pluchea rubelliflora																																										
Plumbago zeylanica																																										
Polycarpaea corymbosa var. *corymbosa*																																										
Polycarpaea holtzei																																										
Polycarpaea longiflora				x																																						
Polygala glaucifolia																																										
Polygala isingii																																										
Polymeria ambigua																																										
Portulaca filifolia																																										
Portulaca oleracea																																										
Prostanthera albiflora																																										
Psydrax latifolia														x																						x						x
Psydrax rigidula																																										
Psydrax suaveolens																																										x
Pterocaulon serrulatum																																										
Pterocaulon sphacelatum	x				x																x							x		x			x			x					x
Pterocaulon sphaeranthoides																																										
Ptilotus astrolasius				x												x	x				x							x			x	x	x		x						x
Ptilotus auriculifolius																																										
Ptilotus calostachyus			x		x				x				x		x	x	x			x	x		x	x		x	x			x	x		x	x	x						x
Ptilotus clementii																																										
Ptilotus exaltatus					x						x				x		x					x						x					x	x	x						x
Ptilotus fusiformis																																										
Ptilotus gaudichaudii																																										
Ptilotus helipteroides																																										
Ptilotus obovatus var. *obovatus*					x				x		x						x				x	x	x	x		x		x		x			x		x	x	x	x				x
Ptilotus polystachyus																																										
Ptilotus roei																																										
Ptilotus rotundifolius		x													x			x								x			x												
Ptilotus schwartzii var. *schwartzii*																																										
Rhagodia eremaea																					x	x		x						x			x	x							
Rhagodia sp. Hamersley (M. Trudgen 17794)																																										x
Rhodanthe propinqua																																										
Rhynchosia minima	x				x	x															x	x												x			x				
Roebuckiella similis																																										
Rostellularia adscendens																																										
Salsola australis																					x										x			x							x
Santalum lanceolatum	x		x								x	x				x					x							x					x	x	x	x	x				
Scaevola acacioides																																										
Scaevola amblyanthera var. *centralis*																																				x						
Scaevola browniana subsp. *browniana*																x				x																			x			
Scaevola parvifolia subsp. *pilbarae*											x										x			x				x		x			x	x		x					

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Scaevola spinescens																																									
Schizachyrium fragile																																									
Sclerolaena cornishiana																												x													x
Sclerolaena costata																																									
Sclerolaena tetragona																																									
Senna artemisioides subsp. *helmsii*							x				x											x																			
Senna artemisioides subsp. *oligophylla*	x	x			x	x							x				x		x			x		x		x		x					x	x	x		x			x	
Senna artemisioides subsp. *x artemisioides*	x																				x															x					
Senna artemisioides subsp. *x sturtii*																														x											
Senna ferraria			x																	x																					
Senna glaucifolia													x																											x		
Senna glutinosa subsp. *glutinosa*		x		x		x	x			x				x	x		x		x				x	x	x	x						x	x		x			x		x	
Senna glutinosa subsp. *pruinosa*		x	x				x								x		x	x	x						x	x												x		x	
Senna glutinosa subsp. *x luerssenii*															x		x	x					x			x							x		x						
Senna notabilis	x																																	x			x				
Senna pleurocarpa var. *angustifolia*																																									x
Senna sericea																		x																							
Senna sp. Meekatharra (E. Bailey 1-26)																																									
Senna stricta																																									
Senna symonii																																									
Seringia exastia											x													x				x													
Seringia nephrosperma																																									
Setaria dielsii																																									
Setaria surgens																					x																				
Sida arenicola																																									
Sida calyxhymenia									x							x				x																					
Sida cardiophylla																																									
Sida echinocarpa																																									
Sida ectogama																																									
Sida fibulifera	x				x																x	x					x		x	x						x				x
Sida platycalyx																																									
Sida sp. Articulation below (A.A. Mitchell PRP 1605)																																									
Sida sp. Barlee Range (S. van Leeuwen 1642)																																									
Sida sp. dark green fruits (S. van Leeuwen 2260)																																									
Sida sp. Excedentifolia (J.L. Egan 1925)																																									
Sida sp. Golden calyces glabrous (H.N. Foote 32)															x		x																								
Sida sp. L (A.M. Ashby 4202)	x																																	x		x					x
Sida sp. Pilbara (A.A. Mitchell PRP 1543)															x																	x					x			
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)														x																											
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)					x						x			x								x	x		x			x		x				x	x	x	x			x
Sida sp. Supplejack Station (T.S. Henshall 2345)								x				x				x															x									
Solanum centrale																																									
Solanum cleistogamum					x								x									x								x	x									
Solanum ferocissimum																																									
Solanum horridum																																									

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Solanum lasiophyllum	x			x	x		x						x									x	x			x					x		x	x			x				x
Solanum phlomoides																																									
Spermacoce brachystema																																									
Sporobolus australasicus																																									
Stemodia grossa																																									
Stemodia viscosa																																									
Stenopetalum nutans																																									
Streptoglossa bubakii																																									
Streptoglossa decurrens																																									
Stylobasium spathulatum																					x														x							
Swainsona canescens																																									
Swainsona kingii																																									
Synaptantha tillaeacea var. *tillaeacea*																																									
Tephrosia densa												x					x																									
Tephrosia oxalidea															x																											
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)														x							x							x							x	x					
Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)																																									
Tephrosia sp. Newman (A.A. Mitchell PRP 29)	x																																								
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)																																									
Tephrosia virens												x																													
Teucrium teucriiflorum																																									x
Themeda sp. Hamersley Station (M.E. Trudgen 11431)																																									
Themeda sp. Mt Barricade (M.E. Trudgen 2471)						x									x																										
Themeda triandra	x		x	x	x			x			x	x		x		x					x		x	x	x	x		x		x				x	x	x	x				x
Thyridolepis mitchelliana																																									
Tinospora smilacina																																									
Trachymene oleracea subsp. oleracea																																									
Tragus australianus																																									
Tribulopis angustifolia																																									
Tribulus astrocarpus																																									
Tribulus hirsutus																																									
Tribulus macrocarpus																						x																			
Tribulus platypterus																																									
Tribulus suberosus																																									
Trichodesma zeylanicum var. *zeylanicum*	x																				x														x		x				
Tricoryne sp. Hamersley Range (S. van Leeuwen 915)																																									
Trigastrotheca molluginea					x																	x																			
Triodia brizoides																																									
Triodia melvillei																																									x
Triodia pungens	x				x		x	x			x	x					x					x		x		x		x		x	x		x	x	x	x	x				x
Triodia sp. Mt Ella (M.E. Trudgen 12739)																																									
Triodia vanleeuwenii		x	x				x		x	x	x		x		x	x	x	x	x	x			x	x	x	x	x		x		x		x	x			x	x		
Triodia wiseana		x		x	x	x	x					x	x		x	x			x		x	x	x		x								x			x	x		x	
Tripogonella loliiformis																																									x
Triumfetta leptacantha																																									

Taxon	CPH-001	CPH-002	CPH-003	CPH-004	CPH-005	CPH-006	CPH-007	CPH-008	CPH-009	CPH-010	CPH-011	CPH-012	CPH-013	CPH-014	CPH-015	CPH-016	CPH-017	CPH-018	CPH-019	CPH-020	CPH-021	CPH-022	CPH-023	CPH-024	CPH-025	CPH-026	CPH-027	CPH-028	CPH-029	CPH-030	CPH-031	CPH-032	CPH-033	CPH-034	CPH-035	CPH-036	CPH-037	CPH-038	CPH-039	CPH-040	CPH-041
Triumfetta maconochieana																																									
Typha domingensis																																									
Urochloa occidentalis var. *ciliata*																																									
Urochloa piligera																																									
Urochloa subquadripara																																									
Vigna lanceolata					x																							x													
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)																																									
Vigna triodiophila																																									
Vincetoxicum carnosum																																									
Vincetoxicum flexuosum																																									
Vincetoxicum lineare												x										x																				x
Vittadinia eremaea																																									
Wahlenbergia tumidifructa																																									
Waltheria indica																																	x								
Waltheria virgata																																									

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Abutilon amplum														x																											
Abutilon cryptopetalum												x			x																										
Abutilon cunninghamii																				x		x		x				x					x								
Abutilon fraseri subsp. *fraseri*				x		x	x								x						x					x															
Abutilon lepidum						x								x																											x
Abutilon macrum						x						x	x																												
Abutilon otocarpum				x		x								x	x		x			x																					
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)																																								
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)																										x													x		x
Acacia adoxa var. *adoxa*													x			x									x					x				x	x	x		x	
Acacia adsurgens				x						x																		x		x	x	x		x	x					
Acacia ancistrocarpa					x				x	x		x							x			x							x	x					x					
Acacia aneura	x		x								x																							x			x			
Acacia aptaneura	x		x	x		x		x	x					x			x					x	x			x	x	x			x	x	x		x		x			
Acacia arida																																								
Acacia atkinsiana					x		x		x				x				x																		x	x			x	
Acacia ayersiana			x																																				x	
Acacia bivenosa					x		x			x			x				x	x	x	x		x	x	x						x			x			x	x			
Acacia catenulata subsp. *occidentalis*																																								
Acacia colei var. *colei*										x	x																													
Acacia coriacea subsp. *pendens*																																								
Acacia cowleana				x								x										x	x	x					x											
Acacia dictyophleba				x	x	x			x	x		x								x		x					x	x		x		x	x	x			x		x	x	x
Acacia elachantha						x			x							x				x								x		x	x	x	x	x	x	x	x			x	x
Acacia hamersleyensis																									x						x										
Acacia hilliana																x															x					x		x			
Acacia inaequilatera				x																		x		x							x						x	x		x
Acacia incurvaneura															x											x															
Acacia kempeana																			x	x										x			x								
Acacia macraneura		x													x					x	x																				
Acacia maitlandii					x									x				x							x	x										x	x	x		x	x
Acacia marramamba																									x																
Acacia minyura																																	x								
Acacia monticola					x							x													x	x					x				x		x			
Acacia pachyacra				x				x							x					x		x	x				x		x	x		x				x	x	x	x	
Acacia pruinocarpa			x		x	x	x	x	x			x			x		x	x			x					x				x		x	x	x			x			x	
Acacia pteraneura																																									
Acacia pyrifolia var. *morrisonii*																																								
Acacia pyrifolia var. *pyrifolia*														x				x																						
Acacia rhodophloia																																	x								
Acacia sericophylla																								x							x										
Acacia sibirica															x		x	x	x			x									x		x		x	x					
Acacia steedmanii subsp. *borealis*												x	x									x	x	x				x					x	x	x						
Acacia synchronicia																																									
Acacia tenuissima					x					x			x			x		x				x	x				x	x		x		x	x	x	x	x	x			x	x

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Acacia tetragonophylla																																									
Acacia trudgeniana																															x									x	
Acacia tumida var. *pilbarensis*		x																																							
Achyranthes aspera																										x																
Acrachne racemosa																																									
Afrohybanthus aurantiacus												x		x												x																
Alternanthera angustifolia	x																																								
Alternanthera denticulata																																									
Alternanthera nana	x	x		x		x	x	x			x	x		x	x			x		x	x	x	x			x		x		x			x								
Amaranthus cuspidifolius																																									x
Amaranthus undulatus																										x																
Ammannia multiflora	x																																								
Amphipogon sericeus					x				x	x						x			x										x					x	x	x	x				
Amyema hilliana																																									
Androcalva luteiflora														x				x																							
Anthobolus leptomerioides						x		x									x		x				x	x						x			x								
Areocleome oxalidea																																									
Aristida burbidgeae																										x																
Aristida contorta	x	x	x	x		x		x			x	x			x		x	x	x	x	x		x				x				x	x		x	x	x			x	x	x
Aristida holathera var. *holathera*	x			x				x	x					x		x			x	x			x	x				x	x	x	x	x	x	x	x	x	x		x	x	x
Aristida inaequiglumis	x			x	x	x	x	x			x	x		x	x		x	x	x	x	x						x	x				x	x	x	x	x		x	x	x	x
Aristida jerichoensis var. *subspinulifera*	x	x																																							
Aristida lazaridis											x															x																
Aristida obscura	x														x						x																				
Aristida pruinosa																							x						x												
Arivela uncifera																																									
Arivela viscosa						x					x	x		x	x						x					x																x
Astrotricha hamptonii																																									
Atalaya hemiglauca																																									
Avicennia marina																																									
Bergia perennis																																									
Blumea tenella	x											x																													
Boerhavia coccinea								x						x	x			x		x	x		x				x														
Boerhavia repleta						x					x				x						x									x											
Bonamia erecta												x				x		x		x		x		x							x								x		
Bonamia pilbarensis																																									
Bothriochloa ewartiana																		x																							
Brachychiton acuminatus				x																																					
Brunonia sp. Long hairs (D.E. Symon 2440)																																									
Bulbostylis turbinata																																									
Calandrinia ptychosperma																																									
Calandrinia pumila																																									
Calotis hispidula																																									
Calotis plumulifera																																									
Calytrix carinata																																								x	

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Capparis lasiantha													x		x					x		x	x			x				x	x					x		x			
Capparis mitchellii																																									
Cassytha capillaris																														x	x										
Cassytha filiformis									x																																	
Centipeda minima subsp. *macrocephala*	x																																								
Cheilanthes brownii																										x															
Cheilanthes sieberi subsp. *sieberi*	x		x	x											x		x									x						x									x
Chloris pectinata																																									
Chrysocephalum apiculatum														x																											
Chrysocephalum gilesii																		x																							
Chrysopogon fallax	x	x	x	x		x		x	x		x	x			x			x			x						x	x				x									
Clerodendrum floribundum																															x								x		
Clerodendrum tomentosum var. *lanceolatum*																																									
Codonocarpus cotinifolius				x	x											x												x				x							x	
Commelina ensifolia																																									
Convolvulus clementii																																									
Convolvulus remotus															x						x																				
Corchorus crozophorifolius														x																											
Corchorus lasiocarpus					x											x									x						x					x			x	x	x
Corchorus sidoides subsp. *sidoides*														x			x	x	x														x								
Corchorus tridens						x								x																											
Corymbia candida																																									
Corymbia deserticola subsp. *deserticola*				x		x			x			x				x			x		x	x							x	x		x	x						x	
Corymbia ferriticola																																									
Corymbia hamersleyana														x				x				x		x	x		x										x	x			
Crassula tetramera																																									
Crotalaria medicaginea var. *neglecta*						x	x					x		x												x															x
Cucumis variabilis		x	x	x	x	x		x			x			x	x		x									x	x					x						x		x
Cymbopogon ambiguus	x			x			x							x	x		x	x	x	x		x	x	x	x	x			x	x	x	x	x		x	x	x	x	x	x
Cymbopogon obtectus	x															x																		x	x						
Cynanchum floribundum																																									
Cynanchum pedunculatum																																					x				x
Cyperus cunninghamii																																									
Cyperus iria	x																																								
Dactyloctenium radulans	x	x				x						x																													
Dampiera candicans																									x												x			x	
Dendrophyllanthus erwinii						x	x																																		
Dichanthium sericeum											x				x																										
Dicrastylis cordifolia																								x																	
Digitaria ammophila	x	x						x							x					x	x										x		x		x						
Digitaria brownii			x	x		x		x	x			x			x		x			x	x		x							x		x	x	x		x					
Digitaria ctenantha						x								x	x						x					x															x
Diplopeltis stuartii var. *stuartii*																														x											
Dipteracanthus australasicus																										x															
Dodonaea coriacea																			x																	x	x	x		x	

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Dodonaea lanceolata																										x															
Dodonaea pachyneura																																									
Dodonaea viscosa																																							x		
Dolichocarpa crouchiana																																									
Duperreya commixta	x		x	x		x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x			x		
Dysphania glomulifera subsp. *eremaea*																																									
Dysphania kalpari																																									
Dysphania melanocarpa																																									
Dysphania rhadinostachya																																									
Dysphania glomulifera subsp. *eremaea*																																									
Enchylaena tomentosa var. *tomentosa*								x									x																								
Enneapogon caerulescens						x	x													x																					
Enneapogon lindleyanus			x	x								x		x	x						x				x	x	x					x					x		x	x		x
Enneapogon polyphyllus				x		x	x				x	x	x		x		x		x	x	x				x	x					x	x	x	x		x		x	x		x
Enneapogon robustissimus						x																																			
Enteropogon ramosus																																									
Eragrostis cumingii	x	x																																							
Eragrostis eriopoda									x	x								x	x														x		x						
Eragrostis leptocarpa	x																																								
Eragrostis olida				x								x																													
Eragrostis pergracilis	x																																								
Eragrostis setifolia					x																																				
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109)																																								
Eragrostis tenellula	x	x																																							
Eragrostis xerophila	x																																								
Eremophila clarkei																																									
Eremophila flaccida																																									
Eremophila forrestii				x					x						x		x		x																						
Eremophila fraseri subsp. *fraseri*				x																																					
Eremophila jucunda subsp. *pulcherrima*																																									
Eremophila lachnocalyx																																									
Eremophila lanceolata	x										x				x						x																				
Eremophila latrobei								x							x		x								x	x					x										
Eremophila longifolia	x		x	x	x				x		x	x					x			x	x	x	x					x				x					x				x
Eremophila magnifica subsp. *magnifica*																																									
Eremophila platycalyx																								x																	
Eriachne benthamii																																									
Eriachne ciliata																																									
Eriachne flaccida	x																																								
Eriachne helmsii			x					x																																	
Eriachne lanata										x														x																	
Eriachne mucronata	x			x	x	x	x		x									x	x					x	x	x	x		x		x	x			x	x	x	x	x	x	x
Eriachne pulchella					x		x										x																								
Eucalyptus gamophylla							x		x	x		x	x				x			x		x	x	x			x	x	x		x	x	x	x						
Eucalyptus leucophloia subsp. *leucophloia*					x		x			x		x	x						x					x	x	x				x					x	x	x	x	x	

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Eucalyptus repullulans																																x	x								
Eucalyptus trivalva																																		x							
Eucalyptus victrix														x																											
Eucalyptus xerothermica		x										x		x				x		x	x	x	x				x	x					x								
Eulalia aurea	x	x	x	x		x	x	x			x	x		x	x		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x		x	x	x	x	x	x
Euphorbia australis				x								x																								x					
Euphorbia biconvexa						x	x							x	x						x																				
Euphorbia boophthona																																									
Euphorbia drummondii		x									x										x																				
Euphorbia ferdinandi var. *ferdinandi*																																									
Euphorbia tannensis subsp. *eremophila*		x		x					x				x								x																				
Euphorbia trigonosperma																										x															
Euploca inexplicita																																									
Euploca pachyphylla																																									
Euploca tanythrix																																									
Euploca tenuifolia												x		x				x											x												
Evolvulus alsinoides		x		x		x	x	x			x	x	x	x	x		x	x	x	x	x				x	x	x				x										x
Exocarpos sparteus																															x										
Ficus brachypoda																																									
Ficus platypoda																										x															
Fimbristylis dichotoma	x	x					x									x														x					x				x	x
Gastrolobium grandiflorum																																									
Glycine canescens				x		x												x								x															
Gompholobium oreophilum					x				x				x			x								x	x				x	x											
Gomphrena canescens						x						x		x																												
Gomphrena cunninghamii																										x																
Gomphrena kanisii																																										
Gomphrena lanata																																										
Gomphrena cunninghamii																																										
Goodenia microptera					x							x						x		x			x										x			x	x				
Goodenia muelleriana															x		x				x					x										x						
Goodenia nuda																																										
Goodenia prostrata	x										x				x																										
Goodenia stellata						x										x		x			x		x					x						x		x					
Goodenia stobbsiana					x											x			x										x						x	x	x		x	x	
Goodenia triodiophila				x												x			x					x	x			x	x		x				x	x	x	x	x	x	
Gossypium australe				x		x								x	x			x																				x	x	x	x
Gossypium robinsonii				x		x	x						x	x				x								x	x					x								x	
Gossypium sturtianum var. *sturtianum*																																									
Grevillea berryana	x														x																										
Grevillea wickhamii																									x												x			x	
Hakea chordophylla				x													x	x	x			x	x	x					x		x				x		x		x	
Hakea loreus subsp. *loreus*	x	x	x	x				x	x		x					x				x	x								x	x						x		x	x	x
Halgania gustafsenii																																									
Hibiscus burtonii			x			x		x	x			x		x			x			x	x		x			x			x		x				x		x			

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Hibiscus coatesii									x								x															x		x		x			x	x	x
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708)																																									
Hibiscus sturtii			x	x	x	x	x	x	x			x			x		x	x		x	x				x					x	x	x	x	x		x	x		x	x	
Indigofera georgei			x					x	x			x					x	x		x		x	x					x				x									
Indigofera monophylla					x		x			x		x	x			x	x		x					x	x				x	x	x				x	x	x	x		x	x
Indigofera rugosa																																							x		
Ipomoea muelleri																																									
Ipomoea polymorpha											x																														
Iseilema eremaeum															x						x					x															
Iseilema membranaceum																																									
Isotropis atropurpurea																																									
Isotropis iophyta				x		x		x				x		x				x																							
Jasminum didymum subsp. *lineare*		x	x	x			x		x	x		x	x			x		x		x	x	x	x	x	x	x		x		x	x	x	x			x			x		x
Josephinia eugeniae																																									
Leichhardtia australis																	x	x				x	x																		
Lepidium echinatum																																									
Lepidium phlebopetalum																																									
Lysiana murrayi	x																																								
Maireana planifolia												x			x											x															
Maireana villosa	x			x		x	x				x				x		x				x											x									
Maireana planifolia																																									
Maytenus sp. Mt Windell (S. van Leeuwen 846)																						x		x				x		x		x	x	x				x		x	
Melhania oblongifolia				x		x	x						x	x												x															
Menkea villosula																																									
Mimulus gracilis	x																																								
Mirbelia viminalis																													x									x		x	
Muelleranthus obovatus																																									
Nellica maderaspatensis																																									
Nicotiana rosulata																																									
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)														x																											
Olearia stuartii		x																																							
Ophioglossum lusitanicum	x																																								
Oxalis perennans																																									
Panicum decompositum		x		x											x		x			x								x				x	x	x							
Panicum effusum	x															x													x												
Paraneurachne muelleri			x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	x		x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	
Paspalidium clementii																																									
Paspalidium constrictum																																									
Paspalidium rarum						x								x																											
Pellaea reynoldsii																										x															
Peplidium muelleri																																									
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)																																									
Peripleura arida																							x																		
Peripleura obovata				x					x																			x		x		x	x								
Perotis rara	x	x				x					x	x			x						x																				

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Petalostylis labicheoides																																									
Pluchea dentex	x																	x																								
Pluchea dunlopii											x																															
Pluchea rubelliflora	x																																								
Plumbago zeylanica																										x																
Polycarpaea corymbosa var. *corymbosa*																																									
Polycarpaea holtzei					x																																				
Polycarpaea longiflora														x												x																x
Polygala glaucifolia																																									
Polygala isingii																																									
Polymeria ambigua																		x																								
Portulaca filifolia																																									
Portulaca oleracea	x											x			x																										
Prostanthera albiflora																										x																
Psydrax latifolia			x	x				x									x		x																		x				
Psydrax rigidula																																x	x								
Psydrax suaveolens																																									
Pterocaulon serrulatum																										x								x								
Pterocaulon sphacelatum	x	x	x	x		x		x	x		x	x		x		x	x	x	x							x		x		x		x		x							
Pterocaulon sphaeranthoides																										x																
Ptilotus astrolasius						x	x	x				x					x	x																		x						
Ptilotus auriculifolius																																										
Ptilotus calostachyus	x			x	x		x		x	x		x	x				x		x						x				x		x			x	x	x					
Ptilotus clementii						x	x						x																							x						
Ptilotus exaltatus				x	x	x	x					x	x							x										x					x						x
Ptilotus fusiformis																																									
Ptilotus gaudichaudii	x																																								
Ptilotus helipteroides												x			x																										
Ptilotus obovatus var. *obovatus*	x		x	x		x	x	x		x	x	x	x	x	x		x	x		x	x	x	x		x	x	x	x				x		x		x	x	x	x	x	
Ptilotus polystachyus						x						x												x																	
Ptilotus roei																																									
Ptilotus rotundifolius				x	x		x		x	x			x						x					x						x	x				x	x		x	x	
Ptilotus schwartzii var. *schwartzii*	x																																								
Rhagodia eremaea	x					x	x								x					x	x					x															
Rhagodia sp. Hamersley (M. Trudgen 17794)		x																																							
Rhodanthe propinqua																																									
Rhynchosia minima						x	x					x		x				x				x				x												x		x	
Roebuckiella similis																																									
Rostellularia adscendens														x												x																x
Salsola australis						x																																			
Santalum lanceolatum				x						x								x							x	x		x		x							x				
Scaevola acacioides																																									
Scaevola amblyanthera var. *centralis*																		x																								
Scaevola browniana subsp. *browniana*																										x																
Scaevola parvifolia subsp. *pilbarae*				x					x			x	x					x			x		x	x	x			x	x	x	x		x	x	x						

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Scaevola spinescens																																									
Schizachyrium fragile							x						x																							x	x			x	x
Sclerolaena cornishiana												x									x																			
Sclerolaena costata																																								
Sclerolaena tetragona																																								
Senna artemisioides subsp. *helmsii*				x		x	x		x						x				x										x		x	x						x		
Senna artemisioides subsp. *oligophylla*				x		x	x		x	x		x	x			x	x	x		x		x	x	x	x					x			x		x	x	x	x	x
Senna artemisioides subsp. *x artemisioides*				x								x										x						x												
Senna artemisioides subsp. *x sturtii*																																								
Senna ferraria																		x								x										x	x	x	x	
Senna glaucifolia															x										x						x									
Senna glutinosa subsp. *glutinosa*				x	x				x				x		x		x		x					x	x	x					x				x	x	x	x	x	x
Senna glutinosa subsp. *pruinosa*					x					x																					x					x	x		x	x	x
Senna glutinosa subsp. *x luerssenii*					x	x	x			x			x						x					x																
Senna notabilis											x	x	x		x		x			x	x							x				x								
Senna pleurocarpa var. *angustifolia*			x									x								x			x	x			x	x		x		x								
Senna sericea																																								
Senna sp. Meekatharra (E. Bailey 1-26)																																								
Senna stricta																																								
Senna symonii																									x															
Seringia exastia					x		x		x	x		x							x	x		x	x	x			x	x	x	x	x	x	x	x	x	x	x		x	
Seringia nephrosperma																																								
Setaria dielsii																																								
Setaria surgens				x		x						x		x							x																			
Sida arenicola																			x						x				x						x		x			
Sida calyxhymenia																																								
Sida cardiophylla																			x	x												x								
Sida echinocarpa																												x								x				x
Sida ectogama																																								
Sida fibulifera			x	x					x			x			x				x		x																		
Sida platycalyx	x	x				x					x																													
Sida sp. Articulation below (A.A. Mitchell PRP 1605)																																								
Sida sp. Barlee Range (S. van Leeuwen 1642)																																								
Sida sp. dark green fruits (S. van Leeuwen 2260)			x																																					
Sida sp. Excedentifolia (J.L. Egan 1925)																																				x			x	
Sida sp. Golden calyces glabrous (H.N. Foote 32)					x																																			
Sida sp. L (A.M. Ashby 4202)		x		x		x		x			x			x	x		x			x	x							x			x	x								
Sida sp. Pilbara (A.A. Mitchell PRP 1543)			x						x			x																								x					
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)																				x															x					
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)			x	x		x	x								x	x	x	x	x		x															x					x
Sida sp. Supplejack Station (T.S. Henshall 2345)									x																											x					
Solanum centrale																																								
Solanum cleistogamum				x																					x										x		x	x		
Solanum ferocissimum		x															x																		x					
Solanum horridum																																								

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Solanum lasiophyllum			x	x	x	x	x	x	x			x		x		x	x		x		x			x	x	x	x		x			x			x	x		x	x		
Solanum phlomoides																																					x		x	x	
Spermacoce brachystema																																									
Sporobolus australasicus						x																																			
Stemodia grossa	x																																								
Stemodia viscosa		x																																							
Stenopetalum nutans																																									
Streptoglossa bubakii																																									
Streptoglossa decurrens																					x																				
Stylobasium spathulatum						x																																			
Swainsona canescens																																									
Swainsona kingii																					x																				
Synaptantha tillaeacea var. *tillaeacea*																																									
Tephrosia densa																									x	x												x	x		x
Tephrosia oxalidea																									x											x	x				
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)														x				x																				x		x
Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)																								x	x													x		
Tephrosia sp. Newman (A.A. Mitchell PRP 29)						x																																		
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)												x																												
Tephrosia virens																																								
Teucrium teucriiflorum																				x						x						x	x							
Themeda sp. Hamersley Station (M.E. Trudgen 11431)															x						x						x													
Themeda sp. Mt Barricade (M.E. Trudgen 2471)																																									
Themeda triandra	x	x	x	x		x	x	x			x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x			x	x			x		x	x	x	x
Thyridolepis mitchelliana																																									
Tinospora smilacina																										x															
Trachymene oleracea subsp. oleracea									x																	x															
Tragus australianus						x										x					x																				
Tribulopis angustifolia																																									
Tribulus astrocarpus																																									
Tribulus hirsutus												x																													
Tribulus macrocarpus																																									
Tribulus platypterus																																							x		
Tribulus suberosus					x																																				
Trichodesma zeylanicum var. *zeylanicum*	x					x					x			x																							x		x		x
Tricoryne sp. Hamersley Range (S. van Leeuwen 915)																																						x			
Trigastrotheca molluginea																																									
Triodia brizoides																										x															x
Triodia melvillei			x					x							x		x		x	x			x				x	x				x		x	x				x		
Triodia pungens			x	x		x	x		x	x		x	x	x			x	x	x	x		x		x				x	x	x		x	x	x						
Triodia sp. Mt Ella (M.E. Trudgen 12739)																																									
Triodia vanleeuwenii																x			x					x	x				x		x		x	x	x	x	x				
Triodia wiseana					x																				x					x	x					x	x	x	x	x	x
Tripogonella loliiformis																x																										
Triumfetta leptacantha																										x																

Taxon	CPH-042	CPH-043	CPH-044	CPH-046	CPH-047	CPH-048	CPH-049	CPH-050	CPH-051	CPH-054	CPH-055	CPH-056	CPH-057	CPH-058	CPH-059	CPH-060	CPH-061	CPH-062	CPH-063	CPH-064	CPH-066	CPH-067	CPH-068	CPH-069	CPH-070	CPH-071	CPH-072	CPH-074	CPH-075	CPH-076	CPH-077	CPH-078	CPH-079	CPH-080	CPH-081	CPH-082	CPH-084	CPH-085	CPH-086	CPH-087	CPH-088
Triumfetta maconochieana																									x	x															
Typha domingensis	x																																							
Urochloa occidentalis var. *ciliata*																																								
Urochloa piligera																																								
Urochloa subquadripara															x																									
Vigna lanceolata												x																												
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)		x																x																						x
Vigna triodiophila																																								
Vincetoxicum carnosum																																								
Vincetoxicum flexuosum																																								
Vincetoxicum lineare			x				x					x	x							x							x		x			x	x	x	x					
Vittadinia eremaea																																								
Wahlenbergia tumidifructa	x	x																																						
Waltheria indica																			x																					
Waltheria virgata																																								

Taxon	CPH-089	CPH-090	CPH-091	CPH-092	CPH-093	CPH-094	CPH-095	CPH-096	CPH-097	CPH-098	CPH-099	CPH-100	CPH-101	CPH-104	CPH-107	CPH-111	CPH-113	CPH-115	CPH-116	CPH-117	CPH-118	CPH-119	CPH-121	CPH-122	CPH-123	CPH-124	CPH-127	CPH-128	CPH-129	CPH-130	CPH-143	CPH-149	CPH-150	CPH-151	CPH-152	CPH-154	CPH-155	CPH-156	CPH-157	CPH-158	CPH-160
Abutilon amplum																																									
Abutilon cryptopetalum																				x		x																				
Abutilon cunninghamii							x																																		
Abutilon fraseri subsp. *fraseri*			x	x																		x	x																		
Abutilon lepidum															x																										
Abutilon macrum																					x																				
Abutilon otocarpum				x											x	x			x		x	x	x	x		x	x				x			x		x	x	x	x	x	x
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)																										x	x		x		x										
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)						x			x	x																						x									
Acacia adoxa var. *adoxa*	x	x			x				x		x																														
Acacia adsurgens						x							x	x					x																x						
Acacia ancistrocarpa								x				x		x	x																										
Acacia aneura						x																		x				x	x	x						x			x		
Acacia aptaneura	x		x	x				x			x				x		x		x	x	x	x	x	x	x	x	x				x	x		x	x	x	x	x	x	x
Acacia arida																																	x								
Acacia atkinsiana																																									
Acacia ayersiana																									x																
Acacia bivenosa						x	x	x				x	x	x			x	x	x					x								x	x		x				x	
Acacia catenulata subsp. *occidentalis*																												x				x		x						
Acacia colei var. *colei*																																									
Acacia coriacea subsp. *pendens*																																									
Acacia cowleana							x																																		
Acacia dictyophleba						x	x	x						x	x						x														x		x			x	
Acacia elachantha						x		x					x																								x				
Acacia hamersleyensis	x	x							x						x				x																x						
Acacia hilliana	x				x																																				
Acacia inaequilatera							x																																		
Acacia incurvaneura																																									
Acacia kempeana															x									x											x						
Acacia macraneura																																									
Acacia maitlandii	x	x							x		x	x			x		x																		x						
Acacia marramamba															x																	x			x						
Acacia minyura																																									
Acacia monticola	x										x	x																													
Acacia pachyacra							x				x							x			x																x			x	
Acacia pruinocarpa									x		x	x		x							x			x	x			x				x	x	x	x		x			x	
Acacia pteraneura																										x	x														
Acacia pyrifolia var. *morrisonii*																																x	x								
Acacia pyrifolia var. *pyrifolia*										x		x			x																										
Acacia rhodophloia								x																																	
Acacia sericophylla						x																																			
Acacia sibirica																																									
Acacia steedmanii subsp. *borealis*						x	x	x																																	
Acacia synchronicia							x																																		
Acacia tenuissima	x					x		x					x	x	x			x																	x	x						

Taxon	CPH-089	CPH-090	CPH-091	CPH-092	CPH-093	CPH-094	CPH-095	CPH-096	CPH-097	CPH-098	CPH-099	CPH-100	CPH-101	CPH-104	CPH-107	CPH-111	CPH-113	CPH-115	CPH-116	CPH-117	CPH-118	CPH-119	CPH-121	CPH-122	CPH-123	CPH-124	CPH-127	CPH-128	CPH-129	CPH-130	CPH-143	CPH-149	CPH-150	CPH-151	CPH-152	CPH-154	CPH-155	CPH-156	CPH-157	CPH-158	CPH-160
Acacia tetragonophylla																																								
Acacia trudgeniana													x	x																											
Acacia tumida var. *pilbarensis*																																								
Achyranthes aspera									x																																
Acrachne racemosa																																								
Afrohybanthus aurantiacus		x			x				x	x	x	x	x																											
Alternanthera angustifolia																										x	x		x		x									
Alternanthera denticulata																																								
Alternanthera nana			x						x	x		x									x		x													x	x	x	x	x	x
Amaranthus cuspidifolius			x							x																				x									
Amaranthus undulatus																																								
Ammannia multiflora																																								
Amphipogon sericeus	x	x			x	x								x	x	x		x	x														x							
Amyema hilliana																																x								
Androcalva luteiflora												x							x																					
Anthobolus leptomerioides						x		x																x	x															
Areocleome oxalidea																										x	x	x	x								x			
Aristida burbidgeae									x																															
Aristida contorta	x		x	x		x				x		x			x	x	x	x				x	x			x	x	x	x	x	x		x	x	x	x	x	x	x	x
Aristida holathera var. *holathera*	x	x				x	x	x	x	x		x		x	x	x														x		x						x	
Aristida inaequiglumis	x	x				x		x		x		x			x		x															x		x	x	x	x	x	x	
Aristida jerichoensis var. *subspinulifera*																												x			x					x	x				x
Aristida lazaridis																																									
Aristida obscura			x	x																	x	x		x	x					x		x		x						
Aristida pruinosa																																									
Arivela uncifera																																								
Arivela viscosa			x	x						x											x	x	x																	
Astrotricha hamptonii									x		x																													
Atalaya hemiglauca																																								
Avicennia marina																																								
Bergia perennis																																						x			
Blumea tenella																																									
Boerhavia coccinea			x	x					x	x		x									x	x	x		x	x		x		x									
Boerhavia repleta			x																		x	x	x			x	x		x		x						x		
Bonamia erecta						x																																		
Bonamia pilbarensis																																								
Bothriochloa ewartiana			x																																					
Brachychiton acuminatus																																								
Brunonia sp. Long hairs (D.E. Symon 2440)																														x										
Bulbostylis turbinata																															x									
Calandrinia ptychosperma																															x									
Calandrinia pumila																											x		x		x									
Calotis hispidula																													x	x										
Calotis plumulifera																													x											
Calytrix carinata																																								

Taxon	CPH-089	CPH-090	CPH-091	CPH-092	CPH-093	CPH-094	CPH-095	CPH-096	CPH-097	CPH-098	CPH-099	CPH-100	CPH-101	CPH-104	CPH-107	CPH-111	CPH-113	CPH-115	CPH-116	CPH-117	CPH-118	CPH-119	CPH-121	CPH-122	CPH-123	CPH-124	CPH-127	CPH-128	CPH-129	CPH-130	CPH-143	CPH-149	CPH-150	CPH-151	CPH-152	CPH-154	CPH-155	CPH-156	CPH-157	CPH-158	CPH-160
Capparis lasiantha						x			x			x																				x								
Capparis mitchellii									x																																
Cassytha capillaris		x			x	x																																			
Cassytha filiformis																																									
Centipeda minima subsp. *macrocephala*																																									
Cheilanthes brownii									x																							x									
Cheilanthes sieberi subsp. *sieberi*			x						x													x	x		x	x	x	x	x	x	x	x		x	x	x	x		x		x
Chloris pectinata																											x		x												
Chrysocephalum apiculatum																																									
Chrysocephalum gilesii										x													x				x														
Chrysopogon fallax			x	x																	x	x	x		x											x		x	x	x	x
Clerodendrum floribundum									x								x																								
Clerodendrum tomentosum var. *lanceolatum*																																									
Codonocarpus cotinifolius															x		x	x	x					x			x		x			x			x				x	x
Commelina ensifolia			x	x																		x	x																	
Convolvulus clementii																						x	x				x		x								x			x
Convolvulus remotus			x																																					
Corchorus crozophorifolius																																									
Corchorus lasiocarpus	x	x				x			x			x		x	x																										
Corchorus sidoides subsp. *sidoides*																																									
Corchorus tridens			x																			x	x																	
Corymbia candida																													x												
Corymbia deserticola subsp. *deserticola*			x					x																	x																
Corymbia ferriticola									x																							x									
Corymbia hamersleyana	x	x			x	x			x	x	x	x			x																										
Crassula tetramera																												x													
Crotalaria medicaginea var. *neglecta*																																									
Cucumis variabilis			x						x	x		x										x	x		x			x				x			x			x		x
Cymbopogon ambiguus	x	x				x		x	x	x	x	x			x		x															x			x				x	
Cymbopogon obtectus						x							x	x	x			x			x																x			
Cynanchum floribundum																																									
Cynanchum pedunculatum																																									
Cyperus cunninghamii										x																															
Cyperus iria																																									
Dactyloctenium radulans			x	x																		x	x	x		x			x		x					x		x			x
Dampiera candicans		x													x																										
Dendrophyllanthus erwinii																																									
Dichanthium sericeum				x																		x				x	x		x							x		x			x
Dicrastylis cordifolia																																									
Digitaria ammophila															x						x				x	x		x	x	x	x	x		x	x	x	x	x	x	x	x
Digitaria brownii	x			x					x			x				x					x							x				x		x						x	
Digitaria ctenantha			x							x												x	x			x			x	x	x										
Diplopeltis stuartii var. *stuartii*						x																																			
Dipteracanthus australasicus									x														x																		
Dodonaea coriacea																		x															x		x						

Taxon	CPH-089	CPH-090	CPH-091	CPH-092	CPH-093	CPH-094	CPH-095	CPH-096	CPH-097	CPH-098	CPH-099	CPH-100	CPH-101	CPH-104	CPH-107	CPH-111	CPH-113	CPH-115	CPH-116	CPH-117	CPH-118	CPH-119	CPH-121	CPH-122	CPH-123	CPH-124	CPH-127	CPH-128	CPH-129	CPH-130	CPH-143	CPH-149	CPH-150	CPH-151	CPH-152	CPH-154	CPH-155	CPH-156	CPH-157	CPH-158	CPH-160
Dodonaea lanceolata									x																																
Dodonaea pachyneura									x																						x										
Dodonaea viscosa										x		x																													
Dolichocarpa crouchiana															x																										
Duperreya commixta	x	x	x	x		x	x	x	x	x	x	x	x	x		x			x		x		x	x				x				x		x	x		x			x	
Dysphania glomulifera subsp. *eremaea*																																				x					
Dysphania kalpari																										x	x	x	x	x	x								x		
Dysphania melanocarpa			x																									x		x										
Dysphania rhadinostachya																											x														
Dysphania glomulifera subsp. *eremaea*																											x		x		x							x			
Enchylaena tomentosa var. *tomentosa*																																x					x			x	
Enneapogon caerulescens																																x				x					
Enneapogon lindleyanus				x						x	x	x				x																									
Enneapogon polyphyllus	x		x	x			x	x	x	x		x	x	x	x		x				x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x
Enneapogon robustissimus																					x	x	x																		
Enteropogon ramosus																																						x			
Eragrostis cumingii			x																								x		x		x									
Eragrostis eriopoda						x		x								x																									
Eragrostis leptocarpa																															x										
Eragrostis olida																																									
Eragrostis pergracilis																										x	x	x	x		x					x		x			
Eragrostis setifolia																																									
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109)															x																										
Eragrostis tenellula																																									
Eragrostis xerophila																												x													
Eremophila clarkei																									x																
Eremophila flaccida																										x															
Eremophila forrestii																					x		x	x	x																
Eremophila fraseri subsp. *fraseri*																																									
Eremophila jucunda subsp. *pulcherrima*															x																										
Eremophila lachnocalyx																																				x					
Eremophila lanceolata			x																			x					x			x					x			x		x
Eremophila latrobei		x		x	x								x															x		x		x			x				x	
Eremophila longifolia						x						x	x										x													x				
Eremophila magnifica subsp. *magnifica*											x																														
Eremophila platycalyx																																									
Eriachne benthamii																													x											
Eriachne ciliata																																									
Eriachne flaccida																											x				x							x			
Eriachne helmsii																											x														
Eriachne lanata																																									
Eriachne mucronata	x	x	x		x				x	x	x	x		x	x						x		x	x							x	x			x	x	x				
Eriachne pulchella																										x	x	x	x		x			x							
Eucalyptus gamophylla						x	x	x					x	x		x	x	x	x																						
Eucalyptus leucophloia subsp. *leucophloia*	x	x			x	x	x		x		x	x			x			x	x													x	x		x				x		

Taxon	CPH-089	CPH-090	CPH-091	CPH-092	CPH-093	CPH-094	CPH-095	CPH-096	CPH-097	CPH-098	CPH-099	CPH-100	CPH-101	CPH-104	CPH-107	CPH-111	CPH-113	CPH-115	CPH-116	CPH-117	CPH-118	CPH-119	CPH-121	CPH-122	CPH-123	CPH-124	CPH-127	CPH-128	CPH-129	CPH-130	CPH-143	CPH-149	CPH-150	CPH-151	CPH-152	CPH-154	CPH-155	CPH-156	CPH-157	CPH-158	CPH-160
Eucalyptus repullulans																																									
Eucalyptus trivalva							x																																		
Eucalyptus victrix																																								
Eucalyptus xerothermica			x	x								x									x		x																	x	
Eulalia aurea	x	x	x	x		x	x	x	x	x	x	x			x																								x	x	
Euphorbia australis												x									x				x																
Euphorbia biconvexa			x																		x	x	x													x					x
Euphorbia boophthona																																									
Euphorbia drummondii				x																						x	x	x	x	x	x	x					x	x			
Euphorbia ferdinandi var. *ferdinandi*																										x	x		x		x					x					x
Euphorbia tannensis subsp. *eremophila*						x	x																																		
Euphorbia trigonosperma									x	x																															
Euploca inexplicita																		x																							
Euploca pachyphylla																																									
Euploca tanythrix																										x															
Euploca tenuifolia										x		x																													
Evolvulus alsinoides	x		x	x							x	x									x	x	x		x	x	x	x	x		x	x			x	x	x	x		x	x
Exocarpos sparteus																																									
Ficus brachypoda									x		x																														
Ficus platypoda																																									
Fimbristylis dichotoma	x	x			x																					x	x		x	x	x			x		x		x	x		x
Gastrolobium grandiflorum									x																																
Glycine canescens												x																													
Gompholobium oreophilum		x				x	x											x	x																						
Gomphrena canescens			x							x																		x													
Gomphrena cunninghamii										x																															
Gomphrena kanisii																							x							x					x		x				
Gomphrena lanata																																				x						
Gomphrena cunninghamii																										x	x		x		x											
Goodenia microptera	x					x		x		x						x	x																x				x				
Goodenia muelleriana						x																x	x		x																
Goodenia nuda																										x	x		x		x					x		x				
Goodenia prostrata																										x	x		x		x					x		x				x
Goodenia stellata			x	x																			x																		
Goodenia stobbsiana	x	x			x	x					x				x				x														x		x						
Goodenia triodiophila	x	x			x	x					x				x			x																	x						
Gossypium australe																																									
Gossypium robinsonii									x	x		x																													
Gossypium sturtianum var. *sturtianum*												x																													
Grevillea berryana																								x				x	x		x										
Grevillea wickhamii					x	x						x		x	x																											
Hakea chordophylla	x	x			x			x			x		x		x	x		x																							
Hakea loreus subsp. *loreus*											x						x		x					x												x						x
Halgania gustafsenii							x						x																												
Hibiscus burtonii			x	x		x						x			x	x					x			x	x		x	x			x	x		x			x		x	x	

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Hibiscus coatesii						x			x						x						x											x				x				
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708)																																									
Hibiscus sturtii	x					x			x			x	x	x				x	x				x		x																	
Indigofera georgei								x															x																				
Indigofera monophylla	x	x			x	x	x		x		x		x	x		x	x	x	x																	x							
Indigofera rugosa																																									
Ipomoea muelleri																																						x			
Ipomoea polymorpha			x																																						
Iseilema eremaeum			x	x																		x			x				x								x				
Iseilema membranaceum																										x	x			x												x
Isotropis atropurpurea						x	x																																		
Isotropis iophyta																							x																			
Jasminum didymum subsp. *lineare*		x				x	x	x	x	x	x	x	x		x																											
Josephinia eugeniae																																						x			
Leichhardtia australis																																									
Lepidium echinatum																										x	x											x				
Lepidium phlebopetalum																						x							x												
Lysiana murrayi																																									
Maireana planifolia																						x			x	x															
Maireana villosa			x	x																	x	x			x			x		x	x	x		x	x		x		x	x	x
Maireana planifolia																					x	x																			
Maytenus sp. Mt Windell (S. van Leeuwen 846)						x	x	x																												x					
Melhania oblongifolia																						x																			
Menkea villosula																													x												
Mimulus gracilis																																									
Mirbelia viminalis		x																x																							
Muelleranthus obovatus																																									
Nellica maderaspatensis												x																													
Nicotiana rosulata																												x		x											
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)										x																															
Olearia stuartii																																									
Ophioglossum lusitanicum																											x	x								x		x			x
Oxalis perennans																												x													
Panicum decompositum						x			x																											x					
Panicum effusum													x		x									x			x				x			x		x			x	x	
Paraneurachne muelleri	x	x	x			x	x		x	x	x	x	x	x	x	x	x	x	x		x		x									x	x	x	x		x			x	
Paspalidium clementii			x												x										x			x	x		x			x							
Paspalidium constrictum				x																																					
Paspalidium rarum			x	x																						x	x			x	x	x				x		x			
Pellaea reynoldsii																																									
Peplidium muelleri																										x															
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)																																									
Peripleura arida																																						x			
Peripleura obovata						x		x				x																													
Perotis rara			x	x																		x	x		x	x	x	x	x		x			x		x				x

Taxon	CPH-089	CPH-090	CPH-091	CPH-092	CPH-093	CPH-094	CPH-095	CPH-096	CPH-097	CPH-098	CPH-099	CPH-100	CPH-101	CPH-104	CPH-107	CPH-111	CPH-113	CPH-115	CPH-116	CPH-117	CPH-118	CPH-119	CPH-121	CPH-122	CPH-123	CPH-124	CPH-127	CPH-128	CPH-129	CPH-130	CPH-143	CPH-149	CPH-150	CPH-151	CPH-152	CPH-154	CPH-155	CPH-156	CPH-157	CPH-158	CPH-160
Petalostylis labicheoides					x				x	x		x							x																					
Pluchea dentex																																									
Pluchea dunlopii																																						x			
Pluchea rubelliflora																																									
Plumbago zeylanica																																									
Polycarpaea corymbosa var. *corymbosa*																												x			x								x		
Polycarpaea holtzei																																									
Polycarpaea longiflora										x	x	x																													
Polygala glaucifolia		x																						x	x																
Polygala isingii																										x	x		x		x										
Polymeria ambigua																							x																		
Portulaca filifolia																						x																			
Portulaca oleracea			x	x																	x	x				x	x	x	x	x	x					x		x			
Prostanthera albiflora									x		x																														
Psydrax latifolia									x																x			x		x											
Psydrax rigidula					x														x		x									x									x		
Psydrax suaveolens																								x	x			x			x	x		x			x		x		
Pterocaulon serrulatum						x			x																		x										x			x	
Pterocaulon sphacelatum						x						x											x					x	x		x	x				x			x		x
Pterocaulon sphaeranthoides																																									
Ptilotus astrolasius												x	x	x							x	x	x																		x
Ptilotus auriculifolius																																									
Ptilotus calostachyus	x	x				x		x		x			x	x	x			x	x					x		x		x		x		x	x		x		x				x
Ptilotus clementii																			x																						
Ptilotus exaltatus			x			x				x					x	x						x			x	x	x	x	x	x	x		x		x	x	x	x	x	x	x
Ptilotus fusiformis																																									x
Ptilotus gaudichaudii			x																			x				x	x	x	x	x	x				x		x		x	
Ptilotus helipteroides			x	x																	x	x			x		x		x		x						x			
Ptilotus obovatus var. *obovatus*			x	x				x	x	x		x				x			x		x	x	x	x	x					x	x	x		x	x		x		x	x	
Ptilotus polystachyus																												x			x	x						x		x	
Ptilotus roei																										x	x	x										x			x
Ptilotus rotundifolius	x					x	x	x				x	x			x			x					x	x											x					x
Ptilotus schwartzii var. *schwartzii*																										x	x	x			x										
Rhagodia eremaea									x												x	x																			
Rhagodia sp. Hamersley (M. Trudgen 17794)																					x	x	x	x	x	x		x		x		x		x		x		x		x
Rhodanthe propinqua																													x		x									
Rhynchosia minima												x											x																		
Roebuckiella similis																										x	x	x	x	x	x					x					x
Rostellularia adscendens									x	x		x																													
Salsola australis			x																		x	x	x				x		x			x				x	x				x
Santalum lanceolatum						x			x	x		x																				x									
Scaevola acacioides																																				x					
Scaevola amblyanthera var. *centralis*												x											x																		
Scaevola browniana subsp. *browniana*		x			x																																				
Scaevola parvifolia subsp. *pilbarae*	x					x	x	x					x			x			x																						

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Scaevola spinescens												x		x																											
Schizachyrium fragile		x							x						x																		x		x						
Sclerolaena cornishiana																					x	x																			
Sclerolaena costata																										x															
Sclerolaena tetragona																																				x					
Senna artemisioides subsp. *helmsii*						x		x				x	x		x	x																									
Senna artemisioides subsp. *oligophylla*	x	x				x	x	x			x	x	x	x	x	x	x		x						x										x						
Senna artemisioides subsp. *x artemisioides*							x																x								x									
Senna artemisioides subsp. *x sturtii*																																								
Senna ferraria					x																											x								
Senna glaucifolia																																								
Senna glutinosa subsp. *glutinosa*	x				x	x			x		x		x		x	x	x	x	x						x							x	x		x					
Senna glutinosa subsp. *pruinosa*	x				x		x						x	x				x															x		x						
Senna glutinosa subsp. *x luerssenii*							x						x	x	x	x			x													x	x		x					
Senna notabilis			x	x											x								x		x	x	x	x			x				x	x	x		x	
Senna pleurocarpa var. *angustifolia*						x		x																																	
Senna sericea																																								
Senna sp. Meekatharra (E. Bailey 1-26)																																								
Senna stricta																																			x					
Senna symonii	x				x																																			
Seringia exastia	x	x				x		x		x	x			x					x																	x			x	
Seringia nephrosperma									x																																
Setaria dielsii																																								
Setaria surgens			x						x																															
Sida arenicola	x											x			x	x	x		x																					
Sida calyxhymenia																																								
Sida cardiophylla						x									x	x										x														
Sida echinocarpa						x						x	x		x	x					x																				
Sida ectogama																								x			x													
Sida fibulifera																						x	x			x	x									x		x			x
Sida platycalyx																											x	x			x					x	x				x
Sida sp. Articulation below (A.A. Mitchell PRP 1605)									x																																
Sida sp. Barlee Range (S. van Leeuwen 1642)																																x									
Sida sp. dark green fruits (S. van Leeuwen 2260)																					x			x	x																
Sida sp. Excedentifolia (J.L. Egan 1925)															x			x																							
Sida sp. Golden calyces glabrous (H.N. Foote 32)																			x														x								
Sida sp. L (A.M. Ashby 4202)			x	x							x										x	x	x			x	x	x	x	x	x			x		x	x	x	x	x	x
Sida sp. Pilbara (A.A. Mitchell PRP 1543)															x			x															x								
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)						x																											x								
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)										x		x					x								x		x														
Sida sp. Supplejack Station (T.S. Henshall 2345)												x		x					x																						
Solanum centrale																x																									
Solanum cleistogamum	x																															x			x					x	
Solanum ferocissimum			x	x					x													x	x	x	x			x						x		x	x			x	x
Solanum horridum															x	x	x	x								x													x		

Taxon	CPH-089	CPH-090	CPH-091	CPH-092	CPH-093	CPH-094	CPH-095	CPH-096	CPH-097	CPH-098	CPH-099	CPH-100	CPH-101	CPH-104	CPH-107	CPH-111	CPH-113	CPH-115	CPH-116	CPH-117	CPH-118	CPH-119	CPH-121	CPH-122	CPH-123	CPH-124	CPH-127	CPH-128	CPH-129	CPH-130	CPH-143	CPH-149	CPH-150	CPH-151	CPH-152	CPH-154	CPH-155	CPH-156	CPH-157	CPH-158	CPH-160
Solanum lasiophyllum	x									x			x	x	x	x	x	x			x		x	x	x	x	x		x		x	x	x	x	x		x			x	
Solanum phlomoides					x																																					
Spermacoce brachystema			x	x																																					
Sporobolus australasicus			x	x											x												x		x												
Stemodia grossa																																									
Stemodia viscosa																																									
Stenopetalum nutans																										x	x		x		x					x		x				
Streptoglossa bubakii																											x														
Streptoglossa decurrens												x											x																			
Stylobasium spathulatum																																									
Swainsona canescens																													x	x											
Swainsona kingii																						x				x	x														
Synaptantha tillaeacea var. *tillaeacea*																											x				x										
Tephrosia densa									x		x	x																													
Tephrosia oxalidea																																									
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)										x		x																													
Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)																																									
Tephrosia sp. Newman (A.A. Mitchell PRP 29)																																									
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)																																									
Tephrosia virens																																									
Teucrium teucriiflorum			x					x													x	x			x					x		x		x	x		x		x	
Themeda sp. Hamersley Station (M.E. Trudgen 11431)				x																																					
Themeda sp. Mt Barricade (M.E. Trudgen 2471)															x		x	x																							
Themeda triandra	x		x	x		x	x		x	x	x	x		x							x	x	x												x	x	x	x	x	x	x	x
Thyridolepis mitchelliana																												x													
Tinospora smilacina									x																																
Trachymene oleracea subsp. oleracea																																									
Tragus australianus			x																			x																		
Tribulopis angustifolia			x	x																																				
Tribulus astrocarpus			x																			x				x	x		x											
Tribulus hirsutus																																									
Tribulus macrocarpus																																									
Tribulus platypterus																																									
Tribulus suberosus																																									
Trichodesma zeylanicum var. *zeylanicum*										x	x	x			x																										
Tricoryne sp. Hamersley Range (S. van Leeuwen 915)		x																																						
Trigastrotheca molluginea																																									
Triodia brizoides											x																														
Triodia melvillei	x							x																x	x			x						x			x		x	x	
Triodia pungens						x	x	x	x	x		x	x	x	x	x			x		x		x	x	x	x						x	x		x		x			x	
Triodia sp. Mt Ella (M.E. Trudgen 12739)									x		x																						x								
Triodia vanleeuwenii	x				x	x	x						x	x		x	x	x	x														x		x						
Triodia wiseana	x	x			x										x			x																							
Tripogonella loliiformis																						x				x	x			x	x					x					x
Triumfetta leptacantha											x																														

Taxon	CPH-089	CPH-090	CPH-091	CPH-092	CPH-093	CPH-094	CPH-095	CPH-096	CPH-097	CPH-098	CPH-099	CPH-100	CPH-101	CPH-104	CPH-107	CPH-111	CPH-113	CPH-115	CPH-116	CPH-117	CPH-118	CPH-119	CPH-121	CPH-122	CPH-123	CPH-124	CPH-127	CPH-128	CPH-129	CPH-130	CPH-143	CPH-149	CPH-150	CPH-151	CPH-152	CPH-154	CPH-155	CPH-156	CPH-157	CPH-158	CPH-160
Triumfetta maconochieana											x																														
Typha domingensis																																									
Urochloa occidentalis var. *ciliata*																						x																				
Urochloa piligera																							x																			
Urochloa subquadripara																																									
Vigna lanceolata																																									
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)																							x																			
Vigna triodiophila																																	x								
Vincetoxicum carnosum																														x											
Vincetoxicum flexuosum									x																																
Vincetoxicum lineare						x		x	x				x								x	x	x	x	x	x		x				x		x	x	x	x			x	
Vittadinia eremaea																																									
Wahlenbergia tumidifructa																																									
Waltheria indica												x																													
Waltheria virgata									x																																

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Abutilon amplum																												
Abutilon cryptopetalum		x																										
Abutilon cunninghamii														x			x				x				x	x		
Abutilon fraseri subsp. *fraseri*							x											x									x	
Abutilon lepidum															x							x						
Abutilon macrum																					x			x	x			
Abutilon otocarpum	x	x	x	x			x	x	x	x						x	x				x			x			x	
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)																												
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)																					x				x	x		
Acacia adoxa var. *adoxa*																				x	x		x	x	x			
Acacia adsurgens					x																		x	x		x		
Acacia ancistrocarpa					x																							
Acacia aneura						x																						
Acacia aptaneura	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x									x	
Acacia arida																												
Acacia atkinsiana																												x
Acacia ayersiana																												
Acacia bivenosa																			x	x	x	x	x	x	x	x		
Acacia catenulata subsp. *occidentalis*																												
Acacia colei var. *colei*																												
Acacia coriacea subsp. *pendens*																									x			
Acacia cowleana																			x		x		x	x	x			
Acacia dictyophleba					x															x		x	x	x				
Acacia elachantha																			x	x		x	x	x	x	x		
Acacia hamersleyensis																												
Acacia hilliana																												
Acacia inaequilatera																												
Acacia incurvaneura							x										x											
Acacia kempeana																												
Acacia macraneura																												
Acacia maitlandii																					x		x					
Acacia marramamba																												
Acacia minyura															x													
Acacia monticola																					x				x	x		
Acacia pachyacra																												x
Acacia pruinocarpa					x	x		x													x							
Acacia pteraneura																												x
Acacia pyrifolia var. *morrisonii*																												
Acacia pyrifolia var. *pyrifolia*																												
Acacia rhodophloia																												
Acacia sericophylla																												
Acacia sibirica																												x
Acacia steedmanii subsp. *borealis*																												
Acacia synchronicia																												
Acacia tenuissima					x	x						x							x	x	x		x	x	x	x		

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Acacia tetragonophylla																	x											
Acacia trudgeniana																			x				x	x				
Acacia tumida var. *pilbarensis*																												
Achyranthes aspera																												
Acrachne racemosa																												
Afrohybanthus aurantiacus																					x		x	x	x	x		
Alternanthera angustifolia																												
Alternanthera denticulata																												
Alternanthera nana				x		x	x							x			x								x	x	x	
Amaranthus cuspidifolius				x														x			x				x			
Amaranthus undulatus																												
Ammannia multiflora																												
Amphipogon sericeus																				x				x				x
Amyema hilliana																												
Androcalva luteiflora																					x				x	x		
Anthobolus leptomerioides																												
Areocleome oxalidea								x				x	x														x	
Aristida burbidgeae																					x							
Aristida contorta	x	x	x	x	x	x		x		x		x	x		x	x	x					x		x			x	x
Aristida holathera var. *holathera*					x														x			x						x
Aristida inaequiglumis	x	x	x		x	x	x	x				x	x		x	x					x		x	x	x		x	
Aristida jerichoensis var. *subspinulifera*	x	x	x	x				x																				
Aristida lazaridis							x																					
Aristida obscura				x		x	x	x					x	x			x	x										
Aristida pruinosa																												
Arivela uncifera														x	x													
Arivela viscosa				x				x									x	x			x				x	x		
Astrotricha hamptonii																												
Atalaya hemiglauca																												
Avicennia marina																												
Bergia perennis																												
Blumea tenella				x																								
Boerhavia coccinea						x		x										x			x					x		
Boerhavia repleta	x													x			x								x			
Bonamia erecta																								x				
Bonamia pilbarensis																												
Bothriochloa ewartiana																												
Brachychiton acuminatus																												
Brunonia sp. Long hairs (D.E. Symon 2440)																												
Bulbostylis turbinata																												
Calandrinia ptychosperma																												
Calandrinia pumila																												
Calotis hispidula																												
Calotis plumulifera																												
Calytrix carinata																												

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Capparis lasiantha																							x					
Capparis mitchellii																												
Cassytha capillaris																												
Cassytha filiformis																												
Centipeda minima subsp. *macrocephala*																												
Cheilanthes brownii																					x							
Cheilanthes sieberi subsp. *sieberi*	x	x	x	x		x	x	x	x	x	x	x	x	x	x		x	x									x	
Chloris pectinata																												
Chrysocephalum apiculatum																												
Chrysocephalum gilesii																												
Chrysopogon fallax	x	x	x	x		x	x	x						x			x	x			x							
Clerodendrum floribundum																	x				x				x	x		
Clerodendrum tomentosum var. *lanceolatum*																												
Codonocarpus cotinifolius											x													x				
Commelina ensifolia							x							x			x	x										
Convolvulus clementii			x	x													x											
Convolvulus remotus																												
Corchorus crozophorifolius																												
Corchorus lasiocarpus																				x	x			x	x	x		
Corchorus sidoides subsp. *sidoides*																												
Corchorus tridens																												
Corymbia candida																												
Corymbia deserticola subsp. *deserticola*					x																		x	x				
Corymbia ferriticola																												
Corymbia hamersleyana																					x				x	x		
Crassula tetramera																												
Crotalaria medicaginea var. *neglecta*																	x									x		
Cucumis variabilis				x																					x			
Cymbopogon ambiguus					x							x			x				x		x			x	x	x		
Cymbopogon obtectus																			x			x	x	x		x		
Cynanchum floribundum																					x				x			
Cynanchum pedunculatum																												
Cyperus cunninghamii																												
Cyperus iria																												
Dactyloctenium radulans	x	x	x	x				x								x	x	x			x							
Dampiera candicans																				x	x							
Dendrophyllanthus erwinii				x	x																							
Dichanthium sericeum	x			x																								
Dicrastylis cordifolia																										x		
Digitaria ammophila	x	x	x	x	x	x	x					x	x										x				x	
Digitaria brownii					x	x											x							x	x			
Digitaria ctenantha				x				x										x										
Diplopeltis stuartii var. *stuartii*																												
Dipteracanthus australasicus																												
Dodonaea coriacea																												

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Dodonaea lanceolata																					x					x		
Dodonaea pachyneura																												
Dodonaea viscosa																										x		
Dolichocarpa crouchiana																												
Duperreya commixta					x	x	x							x				x			x		x	x	x	x		x
Dysphania glomulifera subsp. *eremaea*				x																								
Dysphania kalpari												x																
Dysphania melanocarpa				x				x						x														
Dysphania rhadinostachya														x														
Dysphania glomulifera subsp. *eremaea*																												
Enchylaena tomentosa var. *tomentosa*																									x			
Enneapogon caerulescens			x				x																					
Enneapogon lindleyanus						x												x							x			
Enneapogon polyphyllus	x	x	x	x		x	x	x	x		x				x		x	x	x		x						x	
Enneapogon robustissimus																					x				x	x		
Enteropogon ramosus																												
Eragrostis cumingii				x																								
Eragrostis eriopoda					x																			x				x
Eragrostis leptocarpa																												
Eragrostis olida								x																				
Eragrostis pergracilis								x																				
Eragrostis setifolia																												
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109)																												
Eragrostis tenellula																												
Eragrostis xerophila	x																											
Eremophila clarkei																												
Eremophila flaccida																												
Eremophila forrestii																												
Eremophila fraseri subsp. *fraseri*																												
Eremophila jucunda subsp. *pulcherrima*																												
Eremophila lachnocalyx																												
Eremophila lanceolata	x	x	x	x									x			x											x	
Eremophila latrobei						x		x	x		x		x	x	x			x									x	
Eremophila longifolia							x					x											x			x		
Eremophila magnifica subsp. *magnifica*																												
Eremophila platycalyx																												
Eriachne benthamii	x			x																								
Eriachne ciliata																												
Eriachne flaccida																												
Eriachne helmsii						x																						
Eriachne lanata																												
Eriachne mucronata					x			x				x	x	x	x		x				x			x	x	x		
Eriachne pulchella		x	x	x				x				x		x	x	x	x											
Eucalyptus gamophylla																					x		x	x	x	x		x
Eucalyptus leucophloia subsp. *leucophloia*																			x	x	x	x	x		x	x		x

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Eucalyptus repullulans																												
Eucalyptus trivalva																												
Eucalyptus victrix																												
Eucalyptus xerothermica				x			x											x										
Eulalia aurea	x				x		x										x							x				
Euphorbia australis														x		x			x									
Euphorbia biconvexa	x			x							x			x							x				x			
Euphorbia boophthona																												x
Euphorbia drummondii		x		x					x	x																		
Euphorbia ferdinandi var. *ferdinandi*	x	x	x					x																			x	
Euphorbia tannensis subsp. *eremophila*				x						x		x																
Euphorbia trigonosperma															x		x											
Euploca inexplicita																												
Euploca pachyphylla																												
Euploca tanythrix																												
Euploca tenuifolia																												
Evolvulus alsinoides	x	x		x	x	x	x	x	x			x		x			x	x			x	x		x	x	x	x	
Exocarpos sparteus																												
Ficus brachypoda																												
Ficus platypoda																												
Fimbristylis dichotoma	x	x	x	x		x		x		x	x	x	x		x		x										x	
Gastrolobium grandiflorum																												
Glycine canescens																									x			
Gompholobium oreophilum																				x		x		x				
Gomphrena canescens																												
Gomphrena cunninghamii																				x				x	x			
Gomphrena kanisii																												
Gomphrena lanata								x																				
Gomphrena cunninghamii																												
Goodenia microptera					x												x							x	x			
Goodenia muelleriana																												
Goodenia nuda	x	x		x				x																			x	
Goodenia prostrata	x	x	x	x		x		x		x		x	x	x	x	x	x										x	
Goodenia stellata																												
Goodenia stobbsiana					x																x			x	x	x		x
Goodenia triodiophila																												
Gossypium australe																												
Gossypium robinsonii																					x			x	x	x		
Gossypium sturtianum var. *sturtianum*																												
Grevillea berryana					x		x	x	x				x	x	x													
Grevillea wickhamii																												
Hakea chordophylla					x														x	x					x			
Hakea loreus subsp. *loreus*	x			x		x							x						x									
Halgania gustafsenii																					x		x	x	x	x		
Hibiscus burtonii	x		x		x	x	x	x	x	x	x	x	x	x	x			x						x			x	

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Hibiscus coatesii																								x				
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708)																									x			
Hibiscus sturtii					x	x													x		x	x	x	x	x	x		
Indigofera georgei					x																							
Indigofera monophylla					x															x	x	x	x	x	x	x		
Indigofera rugosa																												
Ipomoea muelleri																		x										
Ipomoea polymorpha																												
Iseilema eremaeum																												
Iseilema membranaceum	x	x		x				x						x													x	
Isotropis atropurpurea																												
Isotropis iophyta							x																					
Jasminum didymum subsp. *lineare*																			x		x	x	x	x	x	x		
Josephinia eugeniae																												
Leichhardtia australis																												
Lepidium echinatum			x																									
Lepidium phlebopetalum																												
Lysiana murrayi																												
Maireana planifolia	x	x					x	x			x		x	x	x	x	x	x										
Maireana villosa	x	x	x			x	x	x	x	x	x	x	x	x		x	x	x		x							x	
Maireana planifolia																												
Maytenus sp. Mt Windell (S. van Leeuwen 846)																												
Melhania oblongifolia	x																				x				x	x		
Menkea villosula																												
Mimulus gracilis																												
Mirbelia viminalis																												
Muelleranthus obovatus																								x				
Nellica maderaspatensis																					x				x	x		
Nicotiana rosulata																	x											
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)																					x							
Olearia stuartii																												
Ophioglossum lusitanicum	x	x	x	x				x	x	x	x		x														x	
Oxalis perennans																												
Panicum decompositum																												
Panicum effusum	x	x	x	x	x		x					x	x	x							x							
Paraneurachne muelleri					x	x	x					x		x					x		x	x	x	x	x	x		
Paspalidium clementii								x	x									x	x									
Paspalidium constrictum																												
Paspalidium rarum	x	x	x	x								x		x			x										x	
Pellaea reynoldsii																												
Peplidium muelleri																												
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)		x		x																								
Peripleura arida																												
Peripleura obovata																					x							
Perotis rara	x	x	x	x				x		x			x	x			x										x	

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Petalostylis labicheoides																												
Pluchea dentex																												
Pluchea dunlopii																												
Pluchea rubelliflora																												
Plumbago zeylanica																												
Polycarpaea corymbosa var. *corymbosa*																												
Polycarpaea holtzei																												
Polycarpaea longiflora				x																					x	x		
Polygala glaucifolia																	x											
Polygala isingii																												
Polymeria ambigua																												
Portulaca filifolia																												
Portulaca oleracea	x		x	x				x	x					x		x	x	x									x	
Prostanthera albiflora																												
Psydrax latifolia						x	x	x	x		x			x				x										
Psydrax rigidula						x	x		x		x	x	x					x										
Psydrax suaveolens					x				x	x	x	x		x			x	x										
Pterocaulon serrulatum																												
Pterocaulon sphacelatum			x	x																								
Pterocaulon sphaeranthoides																												
Ptilotus astrolasius							x															x		x		x		
Ptilotus auriculifolius														x														
Ptilotus calostachyus															x	x			x	x		x		x	x	x		x
Ptilotus clementii																x	x											
Ptilotus exaltatus	x	x	x	x					x	x		x	x	x	x	x	x	x			x				x			
Ptilotus fusiformis	x	x																										
Ptilotus gaudichaudii			x	x				x	x	x				x			x	x									x	
Ptilotus helipteroides																	x										x	
Ptilotus obovatus var. *obovatus*	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x				x	x	x	x
Ptilotus polystachyus								x																				
Ptilotus roei	x		x					x		x	x	x	x	x	x	x		x									x	
Ptilotus rotundifolius																			x	x		x	x					x
Ptilotus schwartzii var. *schwartzii*								x		x		x	x	x	x	x											x	
Rhagodia eremaea	x	x																x			x				x			
Rhagodia sp. Hamersley (M. Trudgen 17794)	x					x	x	x	x		x	x		x			x	x										
Rhodanthe propinqua								x																				
Rhynchosia minima																	x				x				x	x		
Roebuckiella similis	x	x		x				x		x		x	x	x			x										x	
Rostellularia adscendens																												
Salsola australis	x		x	x												x		x										
Santalum lanceolatum																					x				x	x		
Scaevola acacioides																												
Scaevola amblyanthera var. *centralis*																												
Scaevola browniana subsp. *browniana*																												
Scaevola parvifolia subsp. *pilbarae*					x																	x	x	x	x	x		x

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Scaevola spinescens																					x				x			
Schizachyrium fragile																												
Sclerolaena cornishiana	x	x														x	x											
Sclerolaena costata																												
Sclerolaena tetragona			x												x	x												
Senna artemisioides subsp. *helmsii*																					x	x	x	x	x	x		
Senna artemisioides subsp. *oligophylla*					x																x	x	x	x	x	x		x
Senna artemisioides subsp. *x artemisioides*																												
Senna artemisioides subsp. *x sturtii*																												
Senna ferraria																												
Senna glaucifolia																												
Senna glutinosa subsp. *glutinosa*																			x	x	x	x			x	x		x
Senna glutinosa subsp. *pruinosa*																			x	x					x			
Senna glutinosa subsp. *x luerssenii*					x																x	x	x					x
Senna notabilis				x						x		x		x			x							x			x	
Senna pleurocarpa var. *angustifolia*																												
Senna sericea																												
Senna sp. Meekatharra (E. Bailey 1-26)																				x								
Senna stricta																												
Senna symonii																												
Seringia exastia					x				x	x		x		x									x		x			
Seringia nephrosperma																												
Setaria dielsii							x																					
Setaria surgens																	x	x										
Sida arenicola																			x			x	x	x				
Sida calyxhymenia																												
Sida cardiophylla					x																							
Sida echinocarpa																						x						
Sida ectogama								x						x	x													
Sida fibulifera			x	x												x												
Sida platycalyx						x		x								x											x	
Sida sp. Articulation below (A.A. Mitchell PRP 1605)																												
Sida sp. Barlee Range (S. van Leeuwen 1642)															x													
Sida sp. dark green fruits (S. van Leeuwen 2260)																												
Sida sp. Excedentifolia (J.L. Egan 1925)																												
Sida sp. Golden calyces glabrous (H.N. Foote 32)																												
Sida sp. L (A.M. Ashby 4202)	x	x	x	x		x	x	x	x	x		x	x	x			x	x									x	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)																				x	x							
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)																												
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)														x							x				x			
Sida sp. Supplejack Station (T.S. Henshall 2345)														x	x		x											
Solanum centrale																							x					
Solanum cleistogamum										x																		
Solanum ferocissimum		x				x		x	x	x	x	x	x	x	x			x										
Solanum horridum																					x			x	x	x		

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Solanum lasiophyllum	x				x		x	x				x			x	x			x	x	x	x	x	x	x		x	x
Solanum phlomoides																												
Spermacoce brachystema								x																				
Sporobolus australasicus																												
Stemodia grossa																												
Stemodia viscosa																												
Stenopetalum nutans		x		x													x											
Streptoglossa bubakii																												
Streptoglossa decurrens																					x							
Stylobasium spathulatum																												
Swainsona canescens																												
Swainsona kingii																												
Synaptantha tillaeacea var. *tillaeacea*																												
Tephrosia densa																					x				x	x		
Tephrosia oxalidea																												
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)																												
Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)																												
Tephrosia sp. Newman (A.A. Mitchell PRP 29)																												
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)																												
Tephrosia virens																												
Teucrium teucriiflorum	x					x		x			x		x	x			x	x										
Themeda sp. Hamersley Station (M.E. Trudgen 11431)																												
Themeda sp. Mt Barricade (M.E. Trudgen 2471)																												
Themeda triandra	x			x	x		x										x	x			x		x	x	x	x		
Thyridolepis mitchelliana														x														
Tinospora smilacina																												
Trachymene oleracea subsp. oleracea																												
Tragus australianus	x	x	x													x		x										
Tribulopis angustifolia																												
Tribulus astrocarpus	x	x	x	x				x							x	x	x	x										
Tribulus hirsutus																												
Tribulus macrocarpus																												
Tribulus platypterus																												
Tribulus suberosus																												
Trichodesma zeylanicum var. *zeylanicum*																					x				x	x		
Tricoryne sp. Hamersley Range (S. van Leeuwen 915)																												
Trigastrotheca molluginea																												
Triodia brizoides																												
Triodia melvillei					x	x		x	x	x	x	x	x					x						x				
Triodia pungens				x	x									x	x		x				x			x	x	x		x
Triodia sp. Mt Ella (M.E. Trudgen 12739)																												
Triodia vanleeuwenii																			x	x		x	x	x				x
Triodia wiseana					x																	x			x			
Tripogonella loliiformis	x	x	x					x	x		x	x	x														x	
Triumfetta leptacantha																												

Taxon	CPH-161	CPH-163	CPH-164	CPH-165	CPH-166	CPH-167	CPH-168	CPH-169	CPH-170	CPH-171	CPH-172	CPH-173	CPH-174	CPH-175	CPH-176	CPH-178	CPH-179	CPH-180	CPH-181	CPH-182	CPH-183	CPH-184	CPH-185	CPH-186	CPH-187	CPH-188	CPH-199	CPH-501
Triumfetta maconochieana																												
Typha domingensis																												
Urochloa occidentalis var. *ciliata*	x						x										x											
Urochloa piligera																												
Urochloa subquadripara																												
Vigna lanceolata																												
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)																												
Vigna triodiophila																												
Vincetoxicum carnosum																												
Vincetoxicum flexuosum																												
Vincetoxicum lineare	x	x			x	x		x	x	x	x	x	x	x	x			x							x			x
Vittadinia eremaea			x																									
Wahlenbergia tumidifructa																												
Waltheria indica																												
Waltheria virgata																												

Appendix H: WAH Formal Identification

WAH Accession no.	Coll #	Field Name	WA Herbarium ID
	CPH-PL019	Acacia ? Hamersleyensis	*Acacia hamersleyensis*
	CPH128-06	Aristida blue delicate	*Aristida jerichoensis* var. *subspinulifera* (P3)
	EMEB-op01	Aristida pale curly	*Aristida jerichoensis* var. *subspinulifera* (P3)
	CVOpp.04	Aristida lazaridis	*Aristida lazaridis* (P3)
	CPH012-08	Flueggea ziggy leaves	*Clerodendrum tomentosum* var. *lanceolatum*
	CPH107-01	Eragrostis sp. MR	*Eragrostis* sp. Mt Robinson (S. van Leeuwen 4109) (P3)
	CPH-PL021	Eremophila magnifica subsp. magnifica	*Eremophila magnifica* subsp. *magnifica* (P4)
	EBBLOPP-03	Eremophila magnifica	*Eremophila magnifica* subsp. *magnifica* (P4)
	CPH-PL012	Eremophila sp. Hamersley Range (K. Walker KW 136)	*Eremophila naaykensii* (P3)
	CPHR110-02	Eremophila sp. West Angelas	*Eremophila* sp. West Angelas (S. van Leeuwen 4068) (P2)
	RBSC-Opp-02	Hibiscus sp.	*Hibiscus* sp.
9668	CPH187-01	Hibiscus sp. Mt Brock	*Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)
	CVT4.03	Hibiscus ? coatesii	*Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)
	Cph022.03	Indigofera grey small	*Indigofera georgei* sens lat
	CPH-PL014	Indigofera AFF. Fractiflexa	*Indigofera gilesii* (P3)
	EEBOPP-01	Indigofera iron	*Indigofera gilesii* (P3)
	opp/targeted	Ipomoea racemigera	*Ipomoea racemigera* (P3)
	CPHR108-05	Oxalis sp. Pilbara (M.E. Trudgen 12725)	*Oxalis* sp. Pilbara (M.E. Trudgen 12725) (P3)
	EBBLOpp07	Fake fern climber	*Pandorea doratoxylon*
	CPH-098-03	?Dipteracanthus australasicus	*Rostellularia adscendens*
	CPH-088-05	Rostellularia adscendens var. clementii	*Rostellularia adscendens* var. *latifolia* (P3)
	CPH-PL022	Sida ?sp. Hamersley Range	*Sida ectogama*
	CVOpp.06	Sida barlee circle	*Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4)
	CPHR110-04	Solanum ? Kent	*Solanum kentrocaule* (P3)
	CPH066-01	Themeda sp. Hamersley Station (M.E. Trudgen 11431)	*Themeda* sp. Hamersley Station (M.E. Trudgen 11431) (P3)

WAH Accession no.	Coll #	Field Name	WA Herbarium ID
9668 (cont.)	RBKGOpp-01	Triodia ? Sp. Mt Ella	*Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3)
	CPH-PL001	Hibiscus sp. m Brockman	*Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)
	CPH-087-03	Jacksonia aculeata	*Mirbelia viminalis*
10,537	MB.01	Eremophila ? naaykensii MB.01	*Eremophila naaykensii* (P3)
	ML.01	Lepidium catapycnon ML.01	*Lepidium catapycnon (*P4)
	YR.01	Sida sp. Barlee Range (S. van Leeuwen 1642)YR.01	*Sida* sp. Barlee Range (P4)
10,347	CPH209.01	Aristida jeri 209	*Aristida jerichoensis* var. *subspinulifera* (P3)
	CV23op.03	Eremophila magnifica subsp. Magnifica (large coll.)	*Eremophila magnifica* subsp. *magnifica* (P4)
	CV23op.03	Eremophila magnifica subsp. Magnifica (small coll.)	*Eremophila magnifica* subsp. *magnifica* (P4)
	CV23op.02	Eremophila magnifica CV23op.02	*Eremophila magnifica* subsp. *velutina* (P3)
	CPH231.01	Oxalis perennans	*Oxalis* sp. Pilbara (M.E. Trudgen 12725) (P3)
	CV23op.05	Triodia sp. Mt Ella (M.E. Trudgen 12739)	*Triodia* sp. Mt Ella (M.E. Trudgen 12739) (P3)
	CPH227.01	Eremophila blue	*Eremophila caespitosa*

Appendix I: Vegetation structural classification

NVIS Vegetation Structural Classifications

Cover Characteristics							
Foliage cover *	70-100	30-70	10-30	<10	≈0	0-5	unknown
Crown cover **	>80	50-80	20-50	0.25-20	<0.25	0-5	unknown
% Crown cover ***	>80	50-80	20-50	0.25-20	<0.25	0-5	unknown
Cover code	d	c	i	r	bi	bc	unknown

Growth Form	Height Ranges (m)	Structural Formation Classes					
tree, palm	>30 Tall	closed forest	open forest	woodland	open woodland	isolated trees	isolated clumps of trees
	10-30 Mid						
	<10 Low						
tree mallee	10-30 Tall	closed mallee forest	open mallee forest	mallee woodland	open mallee woodland	isolated mallee trees	isolated clumps of mallee trees
	<10 Mid						
	<3 Low						
shrub, cycad, grass-tree, fern	>2 Tall	closed shrubland	shrubland	open shrubland	sparse shrubland	isolated shrubs	isolated clumps of shrubs
	1-2 Mid						
	<1 Low						
mallee shrub	10-30 Tall	closed mallee shrubland	mallee shrubland	open mallee shrubland	sparse mallee shrubland	isolated mallee shrubs	isolated clumps of mallee shrubs
	<10 Mid						
	<3 Low						
heath shrub	>2 Tall	closed heathland	heathland	open heathland	sparse heathland	isolated heath shrubs	isolated clumps of heath shrubs
	1-2 Mid						
	<1 Low						

Growth Form	Height Ranges (m)	Structural Formation Classes					
chenopod shrub	>2 Tall	closed chenopod shrubland	chenopod shrubland	open chenopod shrubland	sparse chenopod shrubland	isolated chenopod shrubs	isolated clumps of chenopod shrubs
	1-2 Mid						
	<1 Low						
samphire shrub	>0.5 Low	closed samphire shrubland	samphire shrubland	open samphire shrubland	sparse samphire shrubland	isolated samphire shrubs	isolated clumps of samphire shrubs
	<0.5 Mid						
hummock grass	>2 Tall	closed hummock grassland	hummock grassland	open hummock grassland	sparse hummock grassland	isolated hummock grasses	isolated clumps of hummock grasses
	<2 Mid						
tussock grass	>0.5 Mid	closed tussock grassland	tussock grassland	open tussock grassland	sparse tussock grassland	isolated tussock grasses	isolated clumps of tussock grasses
	<0.5 Low						
other grass	>0.5 Mid	closed grassland	grassland	open grassland	sparse grassland	isolated grasses	isolated clumps of grasses
	<0.5 Low						
sedge	>0.5 Mid	closed sedgeland	sedgeland	open sedgeland	sparse sedgeland	isolated sedges	isolated clumps of sedges
	<0.5 Low						
rush	>0.5 Mid	closed rushland	rushland	open rushland	sparse rushland	isolated rushes	isolated clumps of rushes
	<0.5 Low						
forb	>0.5 Mid	closed forbland	forbland	open forbland	sparse forbland	isolated forbs	isolated clumps of forbs
	<0.5 Low						
fern	>2 Tall	closed fernland	fernland	open fernland	sparse fernland	isolated ferns	isolated clumps of ferns
	1-2 Mid						
	<1 Low						
bryophyte	<0.5	closed bryophyte land	bryophyte land	open bryophyte land	sparse bryophyte land	isolated bryophytes	isolated clumps of bryophytes

Growth Form	Height Ranges (m)	Structural Formation Classes					
lichen	<0.5	closed lichenland	lichenland	open lichenland	sparse lichenland	isolated lichens	isolated clumps of lichens
vine	<0.5	closed vineland	vineland	open vineland	sparse vineland	isolated vines	isolated clumps of vines
	>30 Tall						
	10-30 Med						
aquatic	<10 Low	closed aquatic bed	aquatic bed	open aquatic bed	sparse aquatics	isolated aquatics	isolated clumps of aquatics
	<1 Tall						
seagrass	0-0.5 Low <1 Tall	closed seagrass bed	seagrass bed	open seagrass bed	sparse seagrass bed	isolated seagrasses	isolated clumps of seagrasses

From: NVIS Structural Formation Terminology (Australian Vegetation Attribute Manual Version 7.0 November 2017 https://www.environment.gov.au/land/publications/australian-vegetation-attribute-manual-version-7)

* Foliage Cover is defined for each stratum as 'the proportion of the ground, which would be shaded if sunshine came from directly overhead'. It includes branches and leaves and is obtained by multiplying Crown Cover with Crown type (Hnatiuk *et al.*, 2009). It is applied to a stratum in a plot, rather than an individual crown, with the NVIS measure for a vegetation type ideally being a summary of several plots. Foliage Projective Cover, which considers only the vertical projection of photosynthetic components (generally leaves), can be measured by line interception methods for tree, shrub and ground layer vegetation (Specht & Specht, 1999).

** Crown Cover (canopy cover) as per Hnatiuk *et al.* (2009) Although relationships between this attribute and Foliage Cover are dependent on season, species, species age etc., the crown cover category classes have been adopted as the defining measure.

*** The percentage cover is defined as the percentage of a strictly defined plot area, covered by vegetation. This can be an estimate and is a less precise measure than using, for example, a point intercept transect method on ground layer, or overstorey vegetative cover. That is, for precisely measured values (e.g., crown densitometer or point intercept transects) the value measured would be 'foliage' cover. Where less precise or qualitative measures are used these will most probably be recorded as 'percentage' cover.

Appendix J: Vegetation condition rating scale

Vegetation Condition Rating Scale

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

Appendix K: Reconciled species list used in statistical analysis – Trips 1 – 5

Non-reconciled	Taxon
?Aristida inaequiglumis	Remove
?Blumea tenella	Remove
?Bothriochloa ewartiana	Remove
?Crotalaria medicaginea	Remove
?Dodonaea sp. indet	Remove
?Dolichocarpa crouchiana	Remove
?Maytenus sp. Mt Windell (S. van Leeuwen 846)	Remove
?Stemodia sp. indet	Remove
Abutilon amplum	*Abutilon amplum*
Abutilon cryptopetalum	*Abutilon cryptopetalum*
Abutilon cunninghamii	*Abutilon cunninghamii*
Abutilon fraseri subsp. *fraseri*	*Abutilon fraseri* subsp. *fraseri*
Abutilon lepidum	*Abutilon lepidum*
Abutilon leucopetalum	*Abutilon leucopetalum*
Abutilon macrum	*Abutilon macrum*
Abutilon otocarpum	*Abutilon otocarpum*
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)	*Abutilon oxycarpum* subsp. Prostrate (A.A. Mitchell PRP 1266)
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	*Abutilon* sp. *Dioicum (*A.A. Mitchell PRP 1618)
Abutilon sp. indet	Remove
Acacia ?aneura	*Acacia aneura*
Acacia ?aptaneura	*Acacia aptaneura*
Acacia ?rhodophloia x sibirica	Remove
Acacia ?sibirica	Remove
Acacia adoxa var. *adoxa*	*Acacia adoxa* var. *adoxa*
Acacia adsurgens	*Acacia adsurgens*
Acacia ancistrocarpa	*Acacia ancistrocarpa*
Acacia aneura	*Acacia aneura*
Acacia aptaneura	*Acacia aptaneura*
Acacia arida	*Acacia arida*
Acacia atkinsiana	*Acacia atkinsiana*
Acacia ayersiana	*Acacia ayersiana*
Acacia bivenosa	*Acacia bivenosa*
Acacia catenulata subsp. *occidentalis*	*Acacia catenulata* subsp. *occidentalis*
Acacia colei var. *colei*	*Acacia colei* var. *colei*

Non-reconciled	Taxon
Acacia coriacea subsp. *pendens*	*Acacia coriacea* subsp. *pendens*
Acacia cowleana	*Acacia cowleana*
Acacia dictyophleba	*Acacia dictyophleba*
Acacia elachantha	*Acacia elachantha*
Acacia hamersleyensis	*Acacia hamersleyensis*
Acacia hilliana	*Acacia hilliana*
Acacia inaequilatera	*Acacia inaequilatera*
Acacia incurvaneura	*Acacia incurvaneura*
Acacia kempeana	*Acacia kempeana*
Acacia macraneura	*Acacia macraneura*
Acacia maitlandii	*Acacia maitlandii*
Acacia marramamba	*Acacia marramamba*
Acacia minyura	*Acacia minyura*
Acacia monticola	*Acacia monticola*
Acacia pachyacra	*Acacia pachyacra*
Acacia pruinocarpa	*Acacia pruinocarpa*
Acacia pteraneura	*Acacia pteraneura*
Acacia pyrifolia var. *morrisonii*	*Acacia pyrifolia* var. *morrisonii*
Acacia pyrifolia var. *pyrifolia*	*Acacia pyrifolia* var. *pyrifolia*
Acacia rhodophloia	*Acacia rhodophloia*
Acacia rhodophloia x sibirica	*Acacia rhodophloia*
Acacia sericophylla	*Acacia sericophylla*
Acacia sibirica	*Acacia sibirica*
Acacia steedmanii subsp. *borealis*	*Acacia steedmanii* subsp. *borealis*
Acacia synchronicia	*Acacia synchronicia*
Acacia tenuissima	*Acacia tenuissima*
Acacia tetragonophylla	*Acacia tetragonophylla*
Acacia trudgeniana	*Acacia trudgeniana*
Acacia tumida var. *pilbarensis*	*Acacia tumida* var. *pilbarensis*
Achyranthes aspera	*Achyranthes aspera*
Acrachne racemosa	*Acrachne racemosa*
Aerva javanica	*Aerva javanica*
Afrohybanthus aurantiacus	*Afrohybanthus aurantiacus*
Alternanthera angustifolia	*Alternanthera angustifolia*

Non-reconciled	Taxon
Alternanthera denticulata var. *denticulata*	*Alternanthera denticulata* var. *denticulata*
Alternanthera nana	*Alternanthera nana*
Amaranthus cuspidifolius	*Amaranthus cuspidifolius*
Amaranthus undulatus	*Amaranthus undulatus*
Ammannia multiflora	*Ammannia multiflora*
Ammannia sp. indet	Remove
Amphipogon sericeus	*Amphipogon sericeus*
Amyema fitzgeraldii	*Amyema fitzgeraldii*
Amyema hilliana	*Amyema hilliana*
Amyema sp. indet	Remove
Androcalva luteiflora	*Androcalva luteiflora*
Anthobolus leptomerioides	*Anthobolus leptomerioides*
Areocleome oxalidea	*Areocleome oxalidea*
Aristida ?inaequiglumis	*Aristida inaequiglumis*
Aristida burbidgeae	*Aristida burbidgeae*
Aristida contorta	*Aristida contorta*
Aristida holathera var. *holathera*	*Aristida holathera* var. *holathera*
Aristida inaequiglumis	*Aristida inaequiglumis*
Aristida jerichoensis var. *subspinulifera*	*Aristida jerichoensis* var. *subspinulifera*
Aristida lazaridis	*Aristida lazaridis*
Aristida obscura	*Aristida obscura*
Aristida pruinosa	*Aristida pruinosa*
Aristida sp. indet	Remove
Arivela uncifera	*Arivela uncifera*
Arivela viscosa	*Arivela viscosa*
Astrotricha hamptonii	*Astrotricha hamptonii*
Atalaya hemiglauca	*Atalaya hemiglauca*
Avicennia marina	*Avicennia marina*
Bergia perennis	*Bergia perennis*
Bidens bipinnata	*Bidens bipinnata*
Blumea tenella	*Blumea tenella*
Boerhavia coccinea	*Boerhavia coccinea*
Boerhavia repleta	*Boerhavia repleta*
Boerhavia sp. indet	Remove

Non-reconciled	Taxon
Bonamia erecta	*Bonamia erecta*
Bonamia pilbarensis	*Bonamia pilbarensis*
Bothriochloa ewartiana	*Bothriochloa ewartiana*
Bothriochloa pertusa	*Bothriochloa pertusa*
Brachychiton acuminatus	*Brachychiton acuminatus*
Brunonia sp. Long hairs (D.E. Symon 2440)	*Brunonia* sp. Long hairs (D.E. Symon 2440)
Bulbostylis turbinata	*Bulbostylis turbinata*
Calandrinia ?ptychosperma	Remove
Calandrinia ?pumila	Remove
Calandrinia pumila	*Calandrinia pumila*
Calandrinia ptychosperma	*Calandrinia ptychosperma*
Calandrinia sp. indet	Remove
Callitris columellaris	*Callitris columellaris*
Calotis hispidula	*Calotis hispidula*
Calotis plumulifera	*Calotis plumulifera*
Calytrix carinata	*Calytrix carinata*
Capparis ?mitchellii	*Capparis mitchellii*
Capparis lasiantha	*Capparis lasiantha*
Capparis mitchellii	*Capparis mitchellii*
Cassytha capillaris	*Cassytha capillaris*
Cassytha filiformis	*Cassytha filiformis*
Cenchrus ciliaris	*Cenchrus ciliaris*
Cenchrus setiger	*Cenchrus setiger*
Centipeda minima subsp. *macrocephala*	*Centipeda minima* subsp. *macrocephala*
Cheilanthes austrotenuifolia	*Cheilanthes austrotenuifolia*
Cheilanthes brownii	*Cheilanthes brownii*
Cheilanthes sieberi subsp. *sieberi*	*Cheilanthes sieberi* subsp. *sieberi*
Cheilanthes sp. indet	Remove
Chloris pectinata	*Chloris pectinata*
Chloris virgata	*Chloris virgata*
Chrysocephalum apiculatum	*Chrysocephalum apiculatum*
Chrysocephalum gilesii	*Chrysocephalum gilesii*
Chrysopogon fallax	*Chrysopogon fallax*
Clerodendrum floribundum	*Clerodendrum floribundum*

Non-reconciled	Taxon
Clerodendrum floribundum var. *angustifolium*	*Clerodendrum floribundum*
Clerodendrum floribundum var. *floribundum*	*Clerodendrum floribundum*
Clerodendrum tomentosum var. *lanceolatum*	*Clerodendrum tomentosum* var. *lanceolatum*
Codonocarpus cotinifolius	*Codonocarpus cotinifolius*
Commelina ensifolia	*Commelina ensifolia*
Convolvulus clementii	*Convolvulus clementii*
Convolvulus remotus	*Convolvulus remotus*
Corchorus crozophorifolius	*Corchorus crozophorifolius*
Corchorus lasiocarpus	*Corchorus lasiocarpus*
Corchorus lasiocarpus subsp. *lasiocarpus*	*Corchorus lasiocarpus*
Corchorus lasiocarpus subsp. *parvus*	*Corchorus lasiocarpus*
Corchorus sidoides subsp. *sidoides*	*Corchorus sidoides* subsp. *sidoides*
Corchorus tridens	*Corchorus tridens*
Corymbia candida	*Corymbia candida*
Corymbia deserticola subsp. *deserticola*	*Corymbia deserticola* subsp. *deserticola*
Corymbia ferriticola	*Corymbia ferriticola*
Corymbia hamersleyana	*Corymbia hamersleyana*
Crassula tetramera	*Crassula tetramera*
Crotalaria medicaginea var. *neglecta*	*Crotalaria medicaginea* var. *neglecta*
Cucumis variabilis	*Cucumis variabilis*
Cymbopogon ambiguus	*Cymbopogon ambiguus*
Cymbopogon obtectus	*Cymbopogon obtectus*
Cymbopogon sp. indet	Remove
Cynanchum floribundum	*Cynanchum floribundum*
Cynanchum pedunculatum	*Cynanchum pedunculatum*
Cyperus ?squarrosus	Remove
Cyperus cunninghamii	*Cyperus cunninghamii*
Cyperus cunninghamii subsp. *cunninghamii*	*Cyperus cunninghamii*
Cyperus iria	*Cyperus iria*
Dactyloctenium radulans	*Dactyloctenium radulans*
Dampiera candicans	*Dampiera candicans*
Dendrophyllanthus erwinii	*Dendrophyllanthus erwinii*
Dichanthium sericeum	*Dichanthium sericeum*
Dichanthium sericeum subsp. *humilius*	*Dichanthium sericeum*

Non-reconciled	Taxon
Dicrastylis cordifolia	*Dicrastylis cordifolia*
Digitaria ammophila	*Digitaria ammophila*
Digitaria brownii	*Digitaria brownii*
Digitaria ciliaris	*Digitaria ciliaris*
Digitaria ctenantha	*Digitaria ctenantha*
Diplopeltis stuartii var. *stuartii*	*Diplopeltis stuartii* var. *stuartii*
Dipteracanthus australasicus	*Dipteracanthus australasicus*
Dipteracanthus australasicus subsp. *australasicus*	*Dipteracanthus australasicus*
Dodonaea coriacea	*Dodonaea coriacea*
Dodonaea lanceolata	*Dodonaea lanceolata*
Dodonaea lanceolata var. *lanceolata*	*Dodonaea lanceolata*
Dodonaea pachyneura	*Dodonaea pachyneura*
Dodonaea petiolaris	*Dodonaea petiolaris*
Dodonaea viscosa subsp. *?mucronata*	*Dodonaea viscosa*
Dodonaea viscosa subsp. *mucronata*	*Dodonaea viscosa*
Dolichocarpa crouchiana	*Dolichocarpa crouchiana*
Duperreya commixta	*Duperreya commixta*
Dysphania glomulifera subsp. *eremaea*	*Dysphania glomulifera* subsp. *eremaea*
Dysphania kalpari	*Dysphania kalpari*
Dysphania melanocarpa	*Dysphania melanocarpa*
Dysphania melanocarpa forma melanocarpa	*Dysphania melanocarpa*
Dysphania rhadinostachya	*Dysphania rhadinostachya*
Dysphania sp. indet	Remove
Dysphania glomulifera subsp. *eremaea*	*Dysphania glomulifera* subsp. *eremaea*
Echinochloa colona	*Echinochloa colona*
Enchylaena tomentosa var. *tomentosa*	*Enchylaena tomentosa* var. *tomentosa*
Enneapogon caerulescens	*Enneapogon caerulescens*
Enneapogon lindleyanus	*Enneapogon lindleyanus*
Enneapogon polyphyllus	*Enneapogon polyphyllus*
Enneapogon robustissimus	*Enneapogon robustissimus*
Enteropogon ramosus	*Enteropogon ramosus*
Eragrostis cumingii	*Eragrostis cumingii*
Eragrostis eriopoda	*Eragrostis eriopoda*
Eragrostis leptocarpa	*Eragrostis leptocarpa*

Non-reconciled	Taxon
Eragrostis olida	*Eragrostis olida*
Eragrostis pergracilis	*Eragrostis pergracilis*
Eragrostis setifolia	*Eragrostis setifolia*
Eragrostis sp. indet	Remove
Eragrostis sp. Mt Robinson (S. van Leeuwen 4109)	*Eragrostis* sp. Mt Robinson (S. van Leeuwen 4109)
Eragrostis tenellula	*Eragrostis tenellula*
Eragrostis xerophila	*Eragrostis xerophila*
Eremophila ?jucunda	Remove
Eremophila clarkei	*Eremophila clarkei*
Eremophila flaccida	*Eremophila flaccida*
Eremophila forrestii	*Eremophila forrestii*
Eremophila forrestii subsp. *forrestii*	*Eremophila forrestii*
Eremophila fraseri subsp. *fraseri*	*Eremophila fraseri* subsp. *fraseri*
Eremophila jucunda subsp. *pulcherrima*	*Eremophila jucunda* subsp. *pulcherrima*
Eremophila lachnocalyx	*Eremophila lachnocalyx*
Eremophila lanceolata	*Eremophila lanceolata*
Eremophila latrobei	*Eremophila latrobei*
Eremophila latrobei subsp. *filiformis*	*Eremophila latrobei*
Eremophila latrobei subsp. *glabra*	*Eremophila latrobei*
Eremophila latrobei subsp. *latrobei*	*Eremophila latrobei*
Eremophila longifolia	*Eremophila longifolia*
Eremophila naaykensii	*Eremophila naaykensii*
Eremophila magnifica subsp. *magnifica*	*Eremophila magnifica* subsp. *magnifica*
Eremophila platycalyx	*Eremophila platycalyx*
Eremophila sp. indet	Remove
Eremophila sp. West Angelas (S. van Leeuwen 4068)	*Eremophila* sp. West Angelas (S. van Leeuwen 4068)
Eriachne ?benthamii	*Eriachne benthamii*
Eriachne benthamii	*Eriachne benthamii*
Eriachne ciliata	*Eriachne ciliata*
Eriachne flaccida	*Eriachne flaccida*
Eriachne helmsii	*Eriachne helmsii*
Eriachne lanata	*Eriachne lanata*
Eriachne mucronata	*Eriachne mucronata*
Eriachne pulchella	*Eriachne pulchella*

Non-reconciled	Taxon
Eriachne pulchella subsp. *dominii*	*Eriachne pulchella*
Eriachne pulchella subsp. *pulchella*	*Eriachne pulchella*
Eriachne sp. indet	Remove
Erigeron bonariensis	*Erigeron bonariensis*
Eucalyptus gamophylla	*Eucalyptus gamophylla*
Eucalyptus leucophloia subsp. *leucophloia*	*Eucalyptus leucophloia* subsp. *leucophloia*
Eucalyptus repullulans	*Eucalyptus repullulans*
Eucalyptus trivalva	*Eucalyptus trivalva*
Eucalyptus victrix	*Eucalyptus victrix*
Eucalyptus xerothermica	*Eucalyptus xerothermica*
Eulalia aurea	*Eulalia aurea*
Euphorbia ?biconvexa	Remove
Euphorbia ?drummondii	Remove
Euphorbia ?trigonosperma	Remove
Euphorbia australis	*Euphorbia australis*
Euphorbia australis var. *hispidula*	*Euphorbia australis*
Euphorbia australis var. *subtomentosa*	*Euphorbia australis*
Euphorbia biconvexa	*Euphorbia biconvexa*
Euphorbia boophthona	*Euphorbia boophthona*
Euphorbia drummondii	*Euphorbia drummondii*
Euphorbia ferdinandi var. *ferdinandi*	*Euphorbia ferdinandi* var. *ferdinandi*
Euphorbia sp. indet	Remove
Euphorbia tannensis subsp. *eremophila*	*Euphorbia tannensis* subsp. *eremophila*
Euphorbia trigonosperma	*Euphorbia trigonosperma*
Euploca ?inexplicita	Remove
Euploca inexplicita	*Euploca inexplicita*
Euploca pachyphylla	*Euploca pachyphylla*
Euploca sp. indet	Remove
Euploca tanythrix	*Euploca tanythrix*
Euploca tenuifolia	*Euploca tenuifolia*
Evolvulus alsinoides	*Evolvulus alsinoides*
Evolvulus alsinoides var. *decumbens*	*Evolvulus alsinoides*
Evolvulus alsinoides var. *villosicalyx*	*Evolvulus alsinoides*
Exocarpos sparteus	*Exocarpos sparteus*

Non-reconciled	Taxon
Ficus brachypoda	*Ficus brachypoda*
Ficus platypoda	*Ficus platypoda*
Fimbristylis dichotoma	*Fimbristylis dichotoma*
Fimbristylis sp. indet	Remove
Gastrolobium grandiflorum	*Gastrolobium grandiflorum*
Glycine canescens	*Glycine canescens*
Gompholobium oreophilum	*Gompholobium oreophilum*
Gomphrena affinis subsp. *pilbarensis*	*Gomphrena affinis* subsp. *pilbarensis*
Gomphrena canescens	*Gomphrena canescens*
Gomphrena cunninghamii	*Gomphrena cunninghamii*
Gomphrena kanisii	*Gomphrena kanisii*
Gomphrena lanata	*Gomphrena lanata*
Gomphrena cunninghamii	*Gomphrena cunninghamii*
Goodenia microptera	*Goodenia microptera*
Goodenia muelleriana	*Goodenia muelleriana*
Goodenia nuda	*Goodenia nuda*
Goodenia prostrata	*Goodenia prostrata*
Goodenia sp. indet	Remove
Goodenia stellata	*Goodenia stellata*
Goodenia stobbsiana	*Goodenia stobbsiana*
Goodenia triodiophila	*Goodenia triodiophila*
Gossypium australe	*Gossypium australe*
Gossypium robinsonii	*Gossypium robinsonii*
Gossypium sturtianum var. *sturtianum*	*Gossypium sturtianum* var. *sturtianum*
Grevillea berryana	*Grevillea berryana*
Grevillea wickhamii	*Grevillea wickhamii*
Grevillea wickhamii subsp. *aprica*	*Grevillea wickhamii*
Grevillea wickhamii subsp. *hispidula*	*Grevillea wickhamii*
Hakea chordophylla	*Hakea chordophylla*
Hakea loreus subsp. *loreus*	*Hakea loreus* subsp. *loreus*
Halgania gustafsenii var. *gustafsenii*	*Halgania gustafsenii*
Halgania gustafsenii var. Mid West (G. Perry 370)	*Halgania gustafsenii*
Haloragis sp. indet	Remove
Hibiscus burtonii	*Hibiscus burtonii*

Non-reconciled	Taxon
Hibiscus coatesii	*Hibiscus coatesii*
Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708)	*Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708)
Hibiscus sp. Mt Brockman (E. Thoma ET 1354)	*Hibiscus* sp. Mt Brockman (E. Thoma ET 1354)
Hibiscus sp. Mt Robinson (G. Byrne 3537)	*Hibiscus* sp. Mt Robinson (G. Byrne 3537)
Hibiscus sturtii	*Hibiscus sturtii*
Hibiscus sturtii var. *campylochlamys*	*Hibiscus sturtii*
Hibiscus sturtii var. *grandiflorus*	*Hibiscus sturtii*
Hibiscus sturtii var. *platychlamys*	*Hibiscus sturtii*
Indigofera georgei	*Indigofera georgei*
Indigofera monophylla	*Indigofera monophylla*
Indigofera rugosa	*Indigofera rugosa*
Ipomoea muelleri	*Ipomoea muelleri*
Ipomoea polymorpha	*Ipomoea polymorpha*
Iseilema eremaeum	*Iseilema eremaeum*
Iseilema membranaceum	*Iseilema membranaceum*
Isotropis atropurpurea	*Isotropis atropurpurea*
Isotropis iophyta	*Isotropis iophyta*
Jasminum didymum subsp. *lineare*	*Jasminum didymum* subsp. *lineare*
Josephinia eugeniae	*Josephinia eugeniae*
Leichhardtia australis	*Leichhardtia australis*
Leiocarpa semicalva subsp. *semicalva*	*Leiocarpa semicalva* subsp. *semicalva*
Lepidium catapycnon	*Lepidium catapycnon*
Lepidium echinatum	*Lepidium echinatum*
Lepidium phlebopetalum	*Lepidium phlebopetalum*
Lobelia heterophylla subsp. *pilbarensis*	*Lobelia heterophylla* subsp. *pilbarensis*
Lysiana murrayi	*Lysiana murrayi*
Maireana ?tomentosa	Remove
Maireana planifolia	*Maireana planifolia*
Maireana sp. indet	Remove
Maireana villosa	*Maireana villosa*
Maireana planifolia	*Maireana planifolia*
Maireana planifolia x villosa	Remove
Malvastrum americanum	*Malvastrum americanum*
Marsilea sp. indet	Remove

Non-reconciled	Taxon
Maytenus sp. Mt Windell (S. van Leeuwen 846)	*Maytenus* sp. Mt Windell (S. van Leeuwen 846)
Melhania oblongifolia	*Melhania oblongifolia*
Melinis repens	*Melinis repens*
Menkea villosula	*Menkea villosula*
Mimulus gracilis	*Mimulus gracilis*
Mirbelia viminalis	*Mirbelia viminalis*
Muelleranthus obovatus	*Muelleranthus obovatus*
Nellica ?maderaspatensis	*Nellica maderaspatensis*
Nellica maderaspatensis	*Nellica maderaspatensis*
Nicotiana rosulata	*Nicotiana rosulata*
Nicotiana sp. indet	Remove
Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)	*Notoleptopus decaisnei* var. Orbicularis (A.B. Craig 428)
Olearia stuartii	*Olearia stuartii*
Ophioglossum lusitanicum	*Ophioglossum lusitanicum*
Oxalis perennans	*Oxalis perennans*
Oxalis sp. Pilbara (M.E. Trudgen 12725)	*Oxalis* sp. Pilbara (M.E. Trudgen 12725)
Panicum decompositum	*Panicum decompositum*
Panicum effusum	*Panicum effusum*
Panicum sp. indet	Remove
Paraneurachne muelleri	*Paraneurachne muelleri*
Paspalidium clementii	*Paspalidium clementii*
Paspalidium constrictum	*Paspalidium constrictum*
Paspalidium rarum	*Paspalidium rarum*
Paspalidium sp. indet	Remove
Pellaea reynoldsii	*Pellaea reynoldsii*
Peplidium muelleri	*Peplidium muelleri*
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)	*Peplidium* sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)
Peripleura arida	*Peripleura arida*
Peripleura obovata	*Peripleura obovata*
Peripleura sp. indet	Remove
Perotis rara	*Perotis rara*
Petalostylis labicheoides	*Petalostylis labicheoides*
Pilbara trudgenii	*Pilbara trudgenii*

Non-reconciled	Taxon
Pluchea dentex	*Pluchea dentex*
Pluchea dunlopii	*Pluchea dunlopii*
Pluchea rubelliflora	*Pluchea rubelliflora*
Plumbago zeylanica	*Plumbago zeylanica*
Polycarpaea corymbosa var. *corymbosa*	*Polycarpaea corymbosa* var. *corymbosa*
Polycarpaea holtzei	*Polycarpaea holtzei*
Polycarpaea longiflora	*Polycarpaea longiflora*
Polygala glaucifolia	*Polygala glaucifolia*
Polygala isingii	*Polygala isingii*
Polymeria ambigua	*Polymeria ambigua*
Portulaca filifolia	*Portulaca filifolia*
Portulaca oleracea	*Portulaca oleracea*
Portulaca pilosa	*Portulaca pilosa*
Prostanthera albiflora	*Prostanthera albiflora*
Psydrax latifolia	*Psydrax latifolia*
Psydrax rigidula	*Psydrax rigidula*
Psydrax suaveolens	*Psydrax suaveolens*
Pterocaulon serrulatum	*Pterocaulon serrulatum*
Pterocaulon sp. indet	Remove
Pterocaulon sphacelatum	*Pterocaulon sphacelatum*
Pterocaulon sphaeranthoides	*Pterocaulon sphaeranthoides*
Ptilotus astrolasius	*Ptilotus astrolasius*
Ptilotus auriculifolius	*Ptilotus auriculifolius*
Ptilotus calostachyus	*Ptilotus calostachyus*
Ptilotus clementii	*Ptilotus clementii*
Ptilotus exaltatus	*Ptilotus exaltatus*
Ptilotus fusiformis	*Ptilotus fusiformis*
Ptilotus gaudichaudii	*Ptilotus gaudichaudii*
Ptilotus helipteroides	*Ptilotus helipteroides*
Ptilotus incanus	*Ptilotus incanus*
Ptilotus obovatus var. *obovatus*	*Ptilotus obovatus* var. *obovatus*
Ptilotus polystachyus	*Ptilotus polystachyus*
Ptilotus roei	*Ptilotus roei*
Ptilotus rotundifolius	*Ptilotus rotundifolius*

Non-reconciled	Taxon
Ptilotus schwartzii var. *schwartzii*	*Ptilotus schwartzii* var. *schwartzii*
Ptilotus sp. indet	Remove
Rhagodia eremaea	*Rhagodia eremaea*
Rhagodia sp. Hamersley (M. Trudgen 17794)	*Rhagodia* sp. Hamersley (M. Trudgen 17794)
Rhodanthe margarethae	*Rhodanthe margarethae*
Rhodanthe propinqua	*Rhodanthe propinqua*
Rhynchosia minima	*Rhynchosia minima*
Roebuckiella similis	*Roebuckiella similis*
Rostellularia adscendens	*Rostellularia adscendens*
Rostellularia adscendens var. *latifolia*	*Rostellularia adscendens*
Salsola australis	*Salsola australis*
Santalum lanceolatum	*Santalum lanceolatum*
Scaevola acacioides	*Scaevola acacioides*
Scaevola amblyanthera var. *centralis*	*Scaevola amblyanthera* var. *centralis*
Scaevola browniana subsp. *browniana*	*Scaevola browniana* subsp. *browniana*
Scaevola parvifolia subsp. *pilbarae*	*Scaevola parvifolia* subsp. *pilbarae*
Scaevola spinescens	*Scaevola spinescens*
Schizachyrium fragile	*Schizachyrium fragile*
Sclerolaena ?cornishiana	Remove
Sclerolaena cornishiana	*Sclerolaena cornishiana*
Sclerolaena costata	*Sclerolaena costata*
Sclerolaena tetragona	*Sclerolaena tetragona*
Senna artemisioides subsp. *helmsii*	*Senna artemisioides* subsp. *helmsii*
Senna artemisioides subsp. *helmsii x oligophylla*	*Senna artemisioides* subsp. *helmsii*
Senna artemisioides subsp. *oligophylla*	*Senna artemisioides* subsp. *oligophylla*
Senna artemisioides subsp. *x artemisioides*	*Senna artemisioides* subsp. *x artemisioides*
Senna artemisioides subsp. *x sturtii*	*Senna artemisioides* subsp. *x sturtii*
Senna ferraria	*Senna ferraria*
Senna glaucifolia	*Senna glaucifolia*
Senna glutinosa	*Senna glutinosa* subsp. *glutinosa*
Senna glutinosa subsp. *glutinosa*	*Senna glutinosa* subsp. *glutinosa*
Senna glutinosa subsp. *pruinosa*	*Senna glutinosa* subsp. *pruinosa*
Senna glutinosa subsp. *x luerssenii*	*Senna glutinosa* subsp. *x luerssenii*
Senna notabilis	*Senna notabilis*

Non-reconciled	Taxon
Senna pleurocarpa var. *angustifolia*	*Senna pleurocarpa* var. *angustifolia*
Senna sericea	*Senna sericea*
Senna sp. indet	Remove
Senna sp. Meekatharra (E. Bailey 1-26)	*Senna* sp. Meekatharra (E. Bailey 1-26)
Senna stricta	*Senna stricta*
Senna symonii	*Senna symonii*
Senna venusta	*Senna venusta*
Seringia exastia	*Seringia exastia*
Seringia nephrosperma	*Seringia nephrosperma*
Setaria dielsii	*Setaria dielsii*
Setaria sp. indet	Remove
Setaria surgens	*Setaria surgens*
Setaria verticillata	*Setaria verticillata*
Sida ?echinocarpa	Remove
*Sida ?*sp. Golden calyces glabrous (H.N. Foote 32)	Remove
*Sida ?*sp. Supplejack Station (T.S. Henshall 2345)	Remove
Sida arenicola	*Sida arenicola*
Sida calyxhymenia	*Sida calyxhymenia*
Sida cardiophylla	*Sida cardiophylla*
Sida echinocarpa	*Sida echinocarpa*
Sida ectogama	*Sida ectogama*
Sida fibulifera	*Sida fibulifera*
Sida platycalyx	*Sida platycalyx*
Sida sp. Articulation below (A.A. Mitchell PRP 1605)	*Sida* sp. Articulation below (A.A. Mitchell PRP 1605)
Sida sp. Barlee Range (S. van Leeuwen 1642)	*Sida* sp. Barlee Range (S. van Leeuwen 1642)
Sida sp. dark green fruits (S. van Leeuwen 2260)	*Sida* sp. dark green fruits (S. van Leeuwen 2260)
Sida sp. Excedentifolia (J.L. Egan 1925)	*Sida* sp. Excedentifolia (J.L. Egan 1925)
Sida sp. Golden calyces glabrous (H.N. Foote 32)	*Sida* sp. Golden calyces glabrous (H.N. Foote 32)
Sida sp. indet	Remove
Sida sp. L (A.M. Ashby 4202)	*Sida* sp. L (A.M. Ashby 4202)
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	*Sida* sp. Pilbara (A.A. Mitchell PRP 1543)
Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	*Sida* sp. Shovelanna Hill (S. van Leeuwen 3842)
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	*Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90)

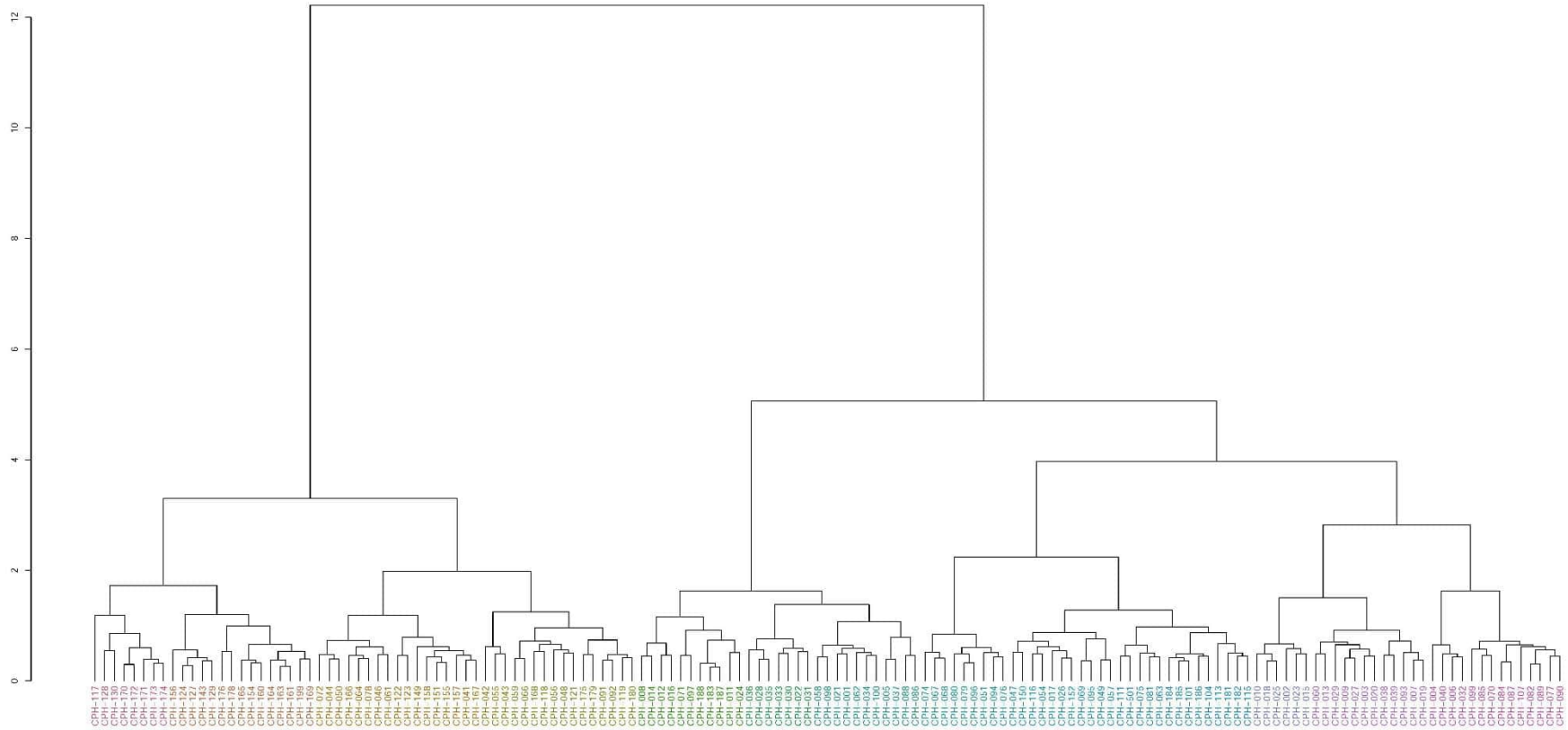
Non-reconciled	Taxon
Sida sp. Supplejack Station (T.S. Henshall 2345)	*Sida* sp. Supplejack Station (T.S. Henshall 2345)
Sigesbeckia orientalis	*Sigesbeckia orientalis*
Solanum ?ferocissimum	Remove
Solanum centrale	*Solanum centrale*
Solanum cleistogamum	*Solanum cleistogamum*
Solanum ferocissimum	*Solanum ferocissimum*
Solanum horridum	*Solanum horridum*
Solanum kentrocaule	*Solanum kentrocaule*
Solanum lasiophyllum	*Solanum lasiophyllum*
Solanum nigrum	*Solanum nigrum*
Solanum phlomoides	*Solanum phlomoides*
Solanum sp. indet	Remove
Solanum ?cleistogamum	Remove
Sonchus oleraceus	*Sonchus oleraceus*
Spermacoce brachystema	*Spermacoce brachystema*
Sporobolus australasicus	*Sporobolus australasicus*
Stemodia grossa	*Stemodia grossa*
Stemodia sp. indet	Remove
Stemodia viscosa	*Stemodia viscosa*
Stenopetalum ?anfractum	Remove
Stenopetalum nutans	*Stenopetalum nutans*
Streptoglossa bubakii	*Streptoglossa bubakii*
Streptoglossa decurrens	*Streptoglossa decurrens*
Streptoglossa sp. indet	Remove
Stylobasium spathulatum	*Stylobasium spathulatum*
Swainsona canescens	*Swainsona canescens*
Swainsona kingii	*Swainsona kingii*
Swainsona sp. indet	Remove
Synaptantha tillaeacea var. *tillaeacea*	*Synaptantha tillaeacea* var. *tillaeacea*
Tephrosia densa	*Tephrosia densa*
Tephrosia oxalidea	*Tephrosia oxalidea*
Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	*Tephrosia rosea* var. Fortescue creeks (M.I.H. Brooker 2186)
Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)	*Tephrosia* sp. Bungaroo Creek (M.E. Trudgen 11601)

Non-reconciled	Taxon
Tephrosia sp. Newman (A.A. Mitchell PRP 29)	*Tephrosia* sp. Newman (A.A. Mitchell PRP 29)
Tephrosia sp. NW Eremaean (S. van Leeuwen *et al.* PBS 0356)	*Tephrosia* sp. NW Eremaean (S. van Leeuwen *et al.* PBS 0356)
Tephrosia virens	*Tephrosia virens*
Teucrium disjunctum	*Teucrium disjunctum*
Teucrium teucriiflorum	*Teucrium teucriiflorum*
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	*Themeda* sp. Hamersley Station (M.E. Trudgen 11431)
Themeda sp. Mt Barricade (M.E. Trudgen 2471)	*Themeda* sp. Mt Barricade (M.E. Trudgen 2471)
Themeda triandra	*Themeda triandra*
Thyridolepis mitchelliana	*Thyridolepis mitchelliana*
Tinospora smilacina	*Tinospora smilacina*
Trachymene oleracea subsp. *oleracea*	*Trachymene oleracea* subsp. *oleracea*
Tragus australianus	*Tragus australianus*
Tribulopis angustifolia	*Tribulopis angustifolia*
Tribulus ?hirsutus	Remove
Tribulus astrocarpus	*Tribulus astrocarpus*
Tribulus hirsutus	*Tribulus hirsutus*
Tribulus macrocarpus	*Tribulus macrocarpus*
Tribulus platypterus	*Tribulus platypterus*
Tribulus sp. indet	Remove
Tribulus suberosus	*Tribulus suberosus*
Tribulus terrestris	*Tribulus terrestris*
Trichodesma zeylanicum var. *zeylanicum*	*Trichodesma zeylanicum* var. *zeylanicum*
Tricoryne sp. Hamersley Range (S. van Leeuwen 915)	*Tricoryne* sp. Hamersley Range (S. van Leeuwen 915)
Trigastrotheca molluginea	*Trigastrotheca molluginea*
Triodia brizoides	*Triodia brizoides*
Triodia melvillei	*Triodia melvillei*
Triodia pungens	*Triodia pungens*
Triodia sp. Mt Ella (M.E. Trudgen 12739)	*Triodia* sp. Mt Ella (M.E. Trudgen 12739)
Triodia vanleeuwenii	*Triodia vanleeuwenii*
Triodia wiseana	*Triodia wiseana*
Tripogonella loliiformis	*Tripogonella loliiformis*
Triumfetta chaetocarpa	*Triumfetta chaetocarpa*
Triumfetta leptacantha	*Triumfetta leptacantha*

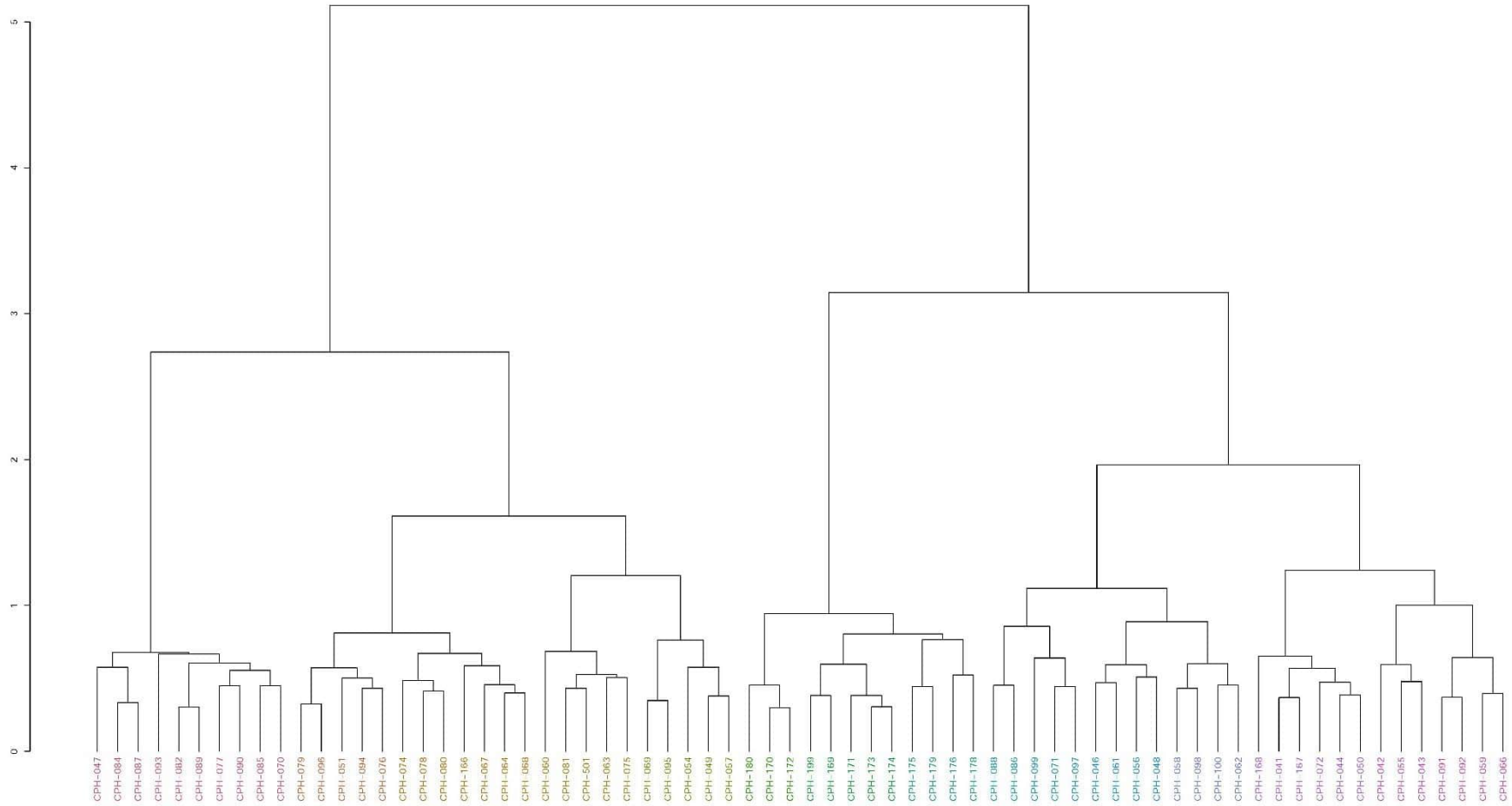
Non-reconciled	Taxon
Triumfetta maconochieana	*Triumfetta maconochieana*
Typha domingensis	*Typha domingensis*
Urochloa occidentalis var. *ciliata*	*Urochloa occidentalis* var. *ciliata*
Urochloa piligera	*Urochloa piligera*
Urochloa distachyos	*Urochloa distachyos*
Vigna lanceolata	*Vigna lanceolata*
Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)	*Vigna* sp. Hamersley Clay (A.A. Mitchell PRP 113)
Vigna triodiophila	*Vigna triodiophila*
Vincetoxicum carnosum	*Vincetoxicum carnosum*
Vincetoxicum flexuosum	*Vincetoxicum flexuosum*
Vincetoxicum lineare	*Vincetoxicum lineare*
Vittadinia eremaea	*Vittadinia eremaea*
Vittadinia sp. indet	Remove
Wahlenbergia tumidifructa	*Wahlenbergia tumidifructa*
Waltheria indica	*Waltheria indica*
Waltheria virgata	*Waltheria virgata*

Appendix L: Dendrogram & cluster analysis – Trips 1 – 5

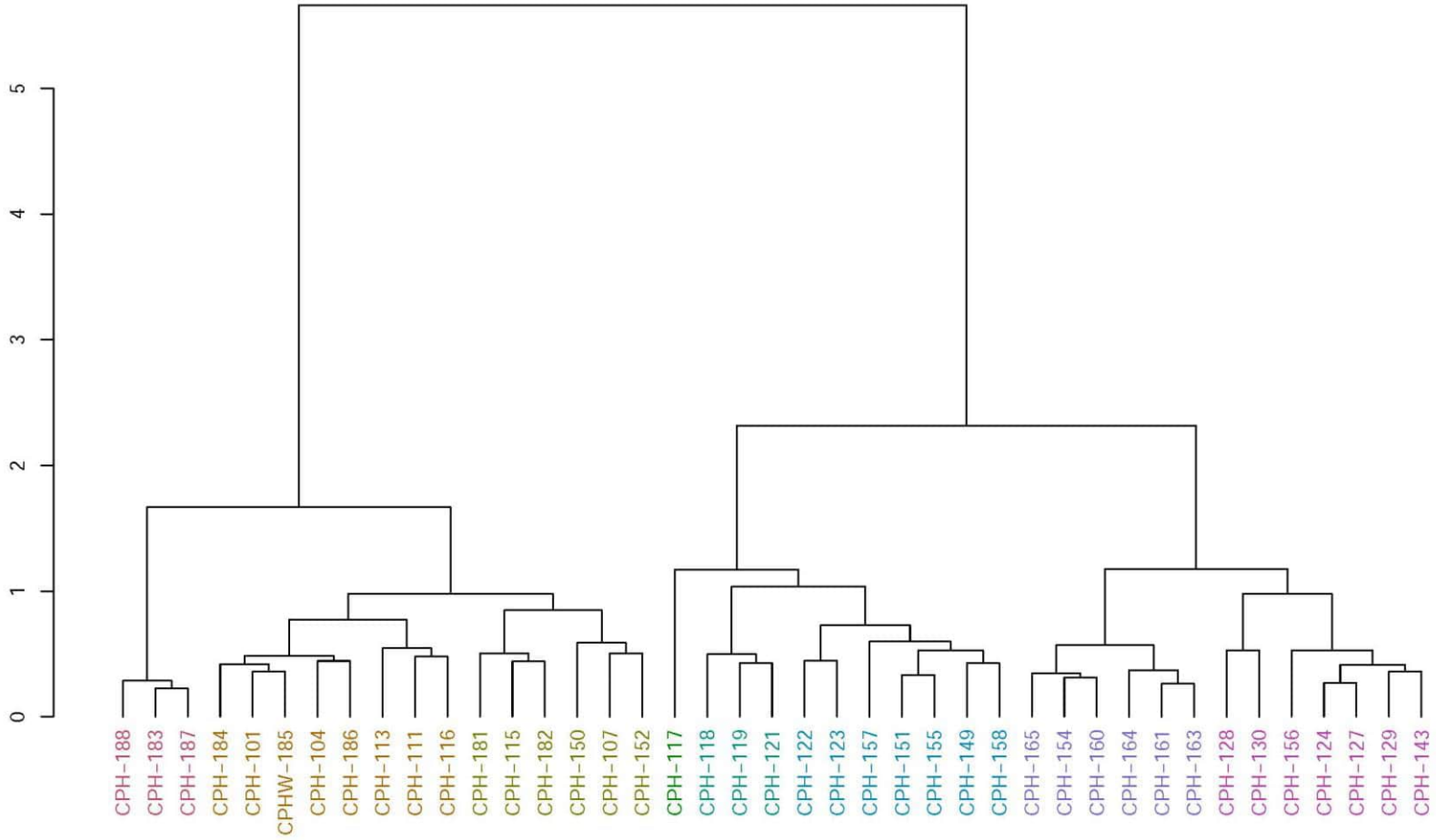
Dendrogram (All sites): Weeds and singletons removed, Braun-Blanquet transformed, Bray-Curtis coefficient



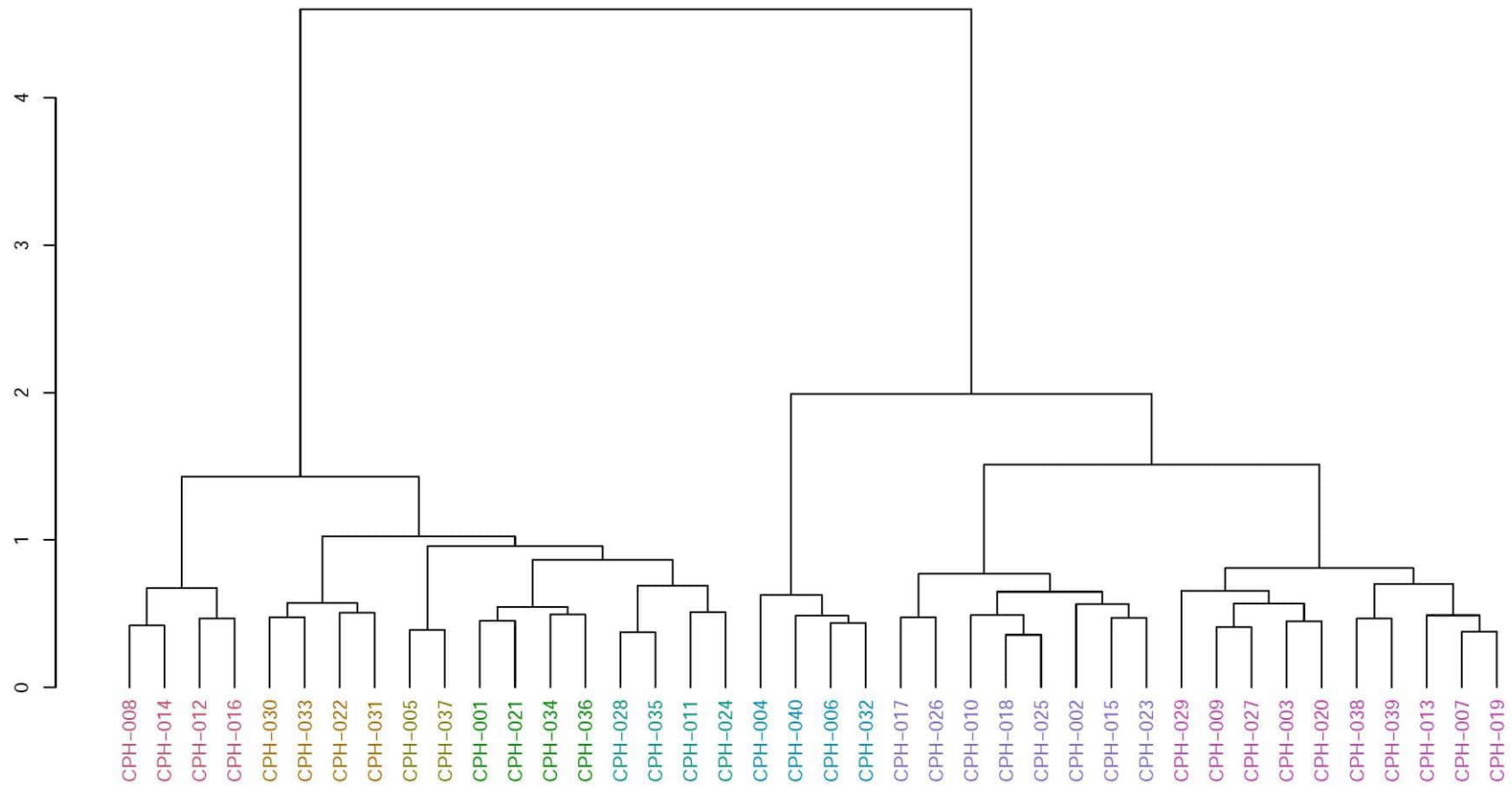
Dendrogram (Pineapple Hill & Camp Hill): Weeds and singletons removed, Braun-Blanquet transformed, Bray-Curtis coefficient



Dendrogram (Mudlark Well): Weeds and singletons removed, Braun-Blanquet transformed, Bray-Curtis coefficient



Dendrogram (MAC to Yandi Rail Corridor): Weeds and singletons removed, Braun-Blanquet transformed, Bray-Curtis coefficient



Appendix M: Flora composition

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Acanthaceae	*Dicladanthera forrestii*		●		
	Dipteracanthus australasicus			●	
	Dipteracanthus australasicus subsp. *australasicus*	●	●		
	Rostellularia adscendens			●	
	Rostellularia adscendens var. *latifolia* (P3)	●	●	●	●
Amaranthaceae	*Achyranthes aspera*			●	
	**Aerva javanica*	●			
	Alternanthera angustifolia		●	●	
	Alternanthera denticulata var. *denticulata*	●	●	●	
	Alternanthera nana	●	●	●	
	Alternanthera nodiflora		●	●	
	Amaranthus cuspidifolius		●	●	
	Amaranthus undulatus		●	●	
	Gomphrena affinis subsp. *Pilbarensis*		●		
	Gomphrena canescens	●	●	●	
	Gomphrena cunninghamii	●	●	●	
	Gomphrena kanisii		●		
	Gomphrena lanata		●	●	
	Ptilotus astrolasius	●	●	●	
	Ptilotus auriculifolius			●	
	Ptilotus calostachyus	●	●	●	
	Ptilotus clementii		●	●	
	Ptilotus exaltatus	●	●	●	
	Ptilotus fusiformis		●		
	Ptilotus gaudichaudii		●	●	
	Ptilotus helipteroides		●	●	
	Ptilotus incanus		●		
	Ptilotus obovatus var. *obovatus*	●	●	●	
	Ptilotus polystachyus		●	●	
	Ptilotus roei		●	●	
	Ptilotus rotundifolius	●	●	●	
	Ptilotus schwartzii var. *schwartzii*		●	●	
	Ptilotus sp. indet.			●	
	Ptilotus xerophilus		●		

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Apocynaceae	*Cynanchum floribundum*	●	●	●	
	Cynanchum pedunculatum			●	
	Cynanchum viminale subsp. *australe*		●		
	Leichhardtia australis		●	●	
	Vincetoxicum carnosum		●		
	Vincetoxicum flexuosum	●		●	
	Vincetoxicum lineare	●	●	●	
Araliaceae	*Astrotricha hamptonii*	●	●	●	
	Trachymene oleracea subsp. *oleracea*		●	●	
Asteraceae	*?Blumea tenella*		●		
	Apowollastonia hamersleyensis				●
	**Bidens bipinnata*	●	●	●	
	Blumea tenella		●	●	
	Calotis hispidula		●		
	Calotis plumulifera		●		
	Centipeda minima subsp. *macrocephala*		●	●	
	Chrysocephalum apiculatum			●	
	Chrysocephalum apiculatum subsp. *pilbarense*		●		
	Chrysocephalum gilesii	●	●	●	
	**Erigeron bonariensis*			●	
	Leiocarpa semicalva subsp. *semicalva*		●		
	Olearia stuartii		●	●	
	Peripleura arida		●	●	
	Peripleura obovata	●	●	●	
	Peripleura sp. indet.		●		
	Peripleura virgata		●		
	Pilbara trudgenii (P3)		●		
	Pluchea dentex	●		●	
	Pluchea dunlopii		●	●	
	Pluchea rubelliflora			●	
	Pterocaulon serrulatum		●	●	
	Pterocaulon sp. indet.	●			
	Pterocaulon sphacelatum	●	●	●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Asteraceae cont.	*Pterocaulon sphaeranthoides*		●	●	
	Rhodanthe margarethae		●	●	
	Rhodanthe propinqua		●	●	
	Roebuckiella ciliocarpa		●		
	Roebuckiella similis		●	●	
	**Sigesbeckia orientalis*		●		
	**Sonchus oleraceus*		●	●	
	Streptoglossa bubakii		●		
	Streptoglossa decurrens		●	●	
	Streptoglossa sp. indet.		●		
	Vittadinia dissecta var. *hirta*		●		
	Vittadinia eremaea		●	●	
	Vittadinia sp. Coondewanna Flats (S. van Leeuwen 4684) (P3)			●	
	Vittadinia sp. indet.			●	
Bignoniaceae	*Pandorea doratoxylon*			●	●
Boraginaceae	*Euploca inexplicita*		●	●	
	Euploca pachyphylla	●			
	Euploca sp. indet.	●	●	●	
	Euploca tanythrix		●		
	Euploca tenuifolia	●		●	
	Halgania gustafsenii var. *gustafsenii*		●		
	Halgania gustafsenii var. Mid West (G. Perry 370)			●	
	Trichodesma zeylanicum var. *zeylanicum*	●	●	●	
Brassicaceae	*Lepidium catapycnon* (P4)		●		
	Lepidium echinatum		●		
	Lepidium oxytrichum		●		
	Lepidium phlebopetalum		●		
	Lepidium sp. indet.			●	
	Menkea villosula		●		
	Stenopetalum ?anfractum		●		
	Stenopetalum decipiens			●	
	Stenopetalum nutans		●	●	
	Stenopetalum sp. indet.		●		

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Campanulaceae	*Lithotoma petraea*				●
	Lobelia heterophylla subsp. *pilbarensis*		●		
	Wahlenbergia tumidifructa		●	●	
Capparaceae	*Capparis lasiantha*	●	●	●	
	Capparis mitchellii		●	●	●
	Capparis umbonata		●		
Caryophyllaceae	*Polycarpaea corymbosa* var. *corymbosa*		●		
	Polycarpaea holtzei			●	
	Polycarpaea longiflora	●	●	●	
Celastraceae	*?Maytenus* sp. Mt Windell (S. van Leeuwen 846)			●	
	Maytenus sp. Mt Windell (S. van Leeuwen 846)		●	●	
Chenopodiaceae	*Dysphania glomulifera* subsp. *eremaea*		●		
	Dysphania kalpari		●	●	
	Dysphania melanocarpa		●	●	
	Dysphania melanocarpa forma *melanocarpa*		●	●	
	Dysphania rhadinostachya		●	●	
	Dysphania saxatilis		●		
	Dysphania sp. indet.	●	●		
	Enchylaena tomentosa var. *tomentosa*	●	●	●	
	Maireana ?tomentosa			●	
	Maireana planifolia		●	●	
	Maireana planifolia x villosa		●		
	Maireana sp. indet.	●	●	●	
	Maireana villosa	●	●	●	
	Rhagodia eremaea	●	●	●	
	Rhagodia sp. Hamersley (M. Trudgen 17794) (P3)		●	●	
	Salsola australis	●	●	●	
	Sclerolaena ?cornishiana			●	
	Sclerolaena cornishiana	●	●	●	
	Sclerolaena costata		●		
	Sclerolaena tetragona		●	●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Cleomaceae	*Areocleome oxalidea*		●	●	
	Arivela uncifera			●	
	Arivela viscosa	●	●	●	
Commelinaceae	*Commelina ensifolia*		●	●	
Convolvulaceae	*Bonamia erecta*	●	●	●	
	Bonamia pilbarensis	●			
	Convolvulus clementii		●	●	
	Convolvulus remotus			●	
	Duperreya commixta	●	●	●	
	Evolvulus alsinoides	●	●	●	
	Evolvulus alsinoides var. *decumbens*	●		●	
	Evolvulus alsinoides var. *villosicalyx*	●	●	●	
	Ipomoea muelleri		●	●	
	Ipomoea plebeia			●	
	Ipomoea polymorpha			●	
	Ipomoea racemigera (P3)			●	
	Operculina aequisepala			●	
	Polymeria ambigua		●	●	
Crassulaceae	*Crassula tetramera*		●		
Cucurbitaceae	*Cucumis variabilis*	●	●	●	
Cupressaceae	*Callitris columellaris*		●		
Cyperaceae	*Bulbostylis turbinata*		●		
	Cyperus ?squarrosus		●		
	Cyperus cunninghamii			●	
	Cyperus cunninghamii subsp. *cunninghamii*	●	●		
	Cyperus iria			●	
	Fimbristylis dichotoma	●	●	●	
	Fimbristylis sp. indet.	●			
Dilleniaceae	*Hibbertia glaberrima*		●		
Elatinaceae	*Bergia perennis*		●		
Euphorbiaceae	*Euphorbia ?biconvexa*		●		
	Euphorbia ?drummondii			●	
	Euphorbia ?trigonosperma			●	
	Euphorbia australis	●		●	
	Euphorbia australis var. *hispidula*		●	●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Euphorbiaceae cont.	*Euphorbia australis* var. *subtomentosa*	●		●	
	Euphorbia biconvexa	●	●	●	
	Euphorbia boophthona			●	
	Euphorbia coghlanii		●		
	Euphorbia drummondii		●	●	
	Euphorbia ferdinandi var. *ferdinandi*		●	●	
	Euphorbia sp. indet.	●	●	●	
	Euphorbia tannensis subsp. *eremophila*		●	●	
	Euphorbia trigonosperma	●	●	●	
Fabaceae	*?Crotalaria medicaginea*	●			
	Acacia ?aneura			●	
	Acacia ?aptaneura			●	
	Acacia ?rhodophloia x sibirica		●		
	Acacia ?sibirica		●		
	Acacia adoxa var. *adoxa*	●	●	●	
	Acacia adsurgens	●	●	●	
	Acacia ancistrocarpa	●	●	●	
	Acacia aneura	●	●	●	
	Acacia aptaneura	●	●	●	
	Acacia aptaneura (short/broad phyllode variant)		●		
	Acacia arida	●	●	●	
	Acacia atkinsiana		●	●	
	Acacia ayersiana		●	●	
	Acacia ayersiana hybrid		●	●	
	Acacia bivenosa	●	●	●	
	Acacia catenulata subsp. *occidentalis*		●		
	Acacia colei var. *colei*	●		●	
	Acacia coriacea subsp. *pendens*	●	●		
	Acacia cowleana		●	●	
	Acacia dictyophleba	●	●	●	
	Acacia elachantha		●	●	
	Acacia hamersleyensis	●	●	●	
	Acacia hilliana	●		●	
	Acacia inaequilatera	●	●	●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Fabaceae cont.	*Acacia incurvaneura*		●	●	
	Acacia kempeana		●	●	
	Acacia macraneura			●	
	Acacia maitlandii	●	●	●	
	Acacia marramamba		●	●	
	Acacia minyura			●	
	Acacia monticola	●	●	●	
	Acacia pachyacra	●	●	●	
	Acacia pruinocarpa	●	●	●	
	Acacia pteraneura		●	●	
	Acacia pyrifolia var. *morrisonii*		●		
	Acacia pyrifolia var. *pyrifolia*	●	●	●	
	Acacia rhodophloia		●	●	
	Acacia rhodophloia x sibirica			●	
	Acacia sericophylla			●	
	Acacia sibirica	●	●	●	
	Acacia sp. indet.		●	●	
	Acacia steedmanii subsp. *borealis*			●	
	Acacia synchronicia			●	
	Acacia tenuissima	●	●	●	
	Acacia tetragonophylla	●	●	●	
	Acacia trudgeniana		●	●	
	Acacia tumida var. *pilbarensis*	●		●	
	Acacia wanyu		●		
	Crotalaria medicaginea var. *neglecta*		●	●	
	Gastrolobium grandiflorum	●		●	
	Glycine canescens	●	●	●	
	Gompholobium oreophilum	●	●	●	
	Grona muelleri			●	
	Indigofera georgei	●	●	●	
	Indigofera gilesii (P3)	●	●		
	Indigofera linifolia			●	
	Indigofera monophylla	●	●	●	
	Indigofera rugosa	●		●	
	Isotropis atropurpurea			●	
	Isotropis iophyta	●	●	●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Fabaceae cont.	*Mirbelia viminalis*	●	●	●	
	Petalostylis labicheoides	●	●	●	
	Rhynchosia minima	●	●	●	
	Senna artemisioides subsp. *helmsii*	●	●	●	
	Senna artemisioides subsp. *helmsii x oligophylla*		●	●	
	Senna artemisioides subsp. *oligophylla*	●	●	●	
	Senna artemisioides subsp. *x artemisioides*	●	●	●	
	Senna artemisioides subsp. *x sturtii*	●			
	Senna ferraria	●	●	●	
	Senna glaucifolia	●	●	●	
	Senna glutinosa	●			
	Senna glutinosa subsp. *glutinosa*	●	●	●	
	Senna glutinosa subsp. *pruinosa*	●	●	●	
	Senna glutinosa subsp. *x luerssenii*	●	●	●	
	Senna hamersleyensis		●		
	Senna notabilis	●	●	●	
	Senna pleurocarpa var. *angustifolia*		●	●	
	Senna sericea	●			
	Senna sp. indet.			●	
	Senna sp. Meekatharra (E. Bailey 1-26)		●		
	Senna stricta		●		
	Senna symonii			●	
	Senna venusta		●	●	
	**Stylosanthes hamata*		●		
	Swainsona canescens		●		
	Swainsona kingii		●	●	
	Swainsona sp. indet.		●	●	
	Tephrosia densa	●	●	●	
	Tephrosia oxalidea	●		●	
	Tephrosia rosea var. Fortescue creeks (M.I.H. Brooker 2186)	●	●	●	
	Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)			●	
	Tephrosia sp. deserts (J.R. Maconochie 1403)			●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Fabaceae cont.	*Tephrosia* sp. Newman (A.A. Mitchell PRP 29)	●		●	
	Tephrosia sp. NW Eremaean (S. van Leeuwen *et al.* PBS 0356)		●	●	
	Tephrosia supina		●	●	
	Tephrosia virens	●			
	**Vachellia farnesiana*		●		
	Vigna lanceolata	●		●	
	Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)		●	●	
Goodeniaceae	*Brunonia* sp. Long hairs (D.E. Symon 2440)		●		
	Dampiera candicans	●	●	●	
	Goodenia cusackiana	●		●	
	Goodenia microptera	●	●	●	
	Goodenia muelleriana	●	●	●	
	Goodenia nuda		●	●	
	Goodenia prostrata		●	●	
	Goodenia sp. indet.			●	
	Goodenia stellata	●	●	●	
	Goodenia stobbsiana	●	●	●	
	Goodenia triodiophila	●	●	●	
	Scaevola acacioides		●		
	Scaevola amblyanthera		●		
	Scaevola amblyanthera var. *amblyanthera*		●		
	Scaevola amblyanthera var. *centralis*	●	●	●	
	Scaevola browniana subsp. *browniana*	●		●	
	Scaevola parvifolia subsp. *pilbarae*	●	●	●	
	Scaevola spinescens	●	●	●	
Gyrostemonaceae	*Codonocarpus cotinifolius*	●	●	●	
Haloragaceae	*Haloragis* sp. indet.		●		
Hemerocallidaceae	*Tricoryne* sp. Hamersley Range (S. van Leeuwen 915)			●	
Lamiaceae	*Clerodendrum floribundum*	●	●	●	
	Clerodendrum floribundum var. *angustifolium*	●	●	●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Lamiaceae cont.	*Clerodendrum floribundum* var. *floribundum*		●	●	
	Clerodendrum tomentosum var. *lanceolatum*	●			
	Dicrastylis cordifolia		●	●	
	Newcastelia clavipetala		●		
	Prostanthera albiflora		●	●	
	Prostanthera campbellii		●		
	Teucrium disjunctum		●		
	Teucrium teucriiflorum		●	●	
Lauraceae	*Cassytha capillaris*		●	●	
	Cassytha filiformis	●		●	
Loranthaceae	*Amyema fitzgeraldii*		●	●	
	Amyema hilliana		●		
	Amyema sanguinea			●	
	Amyema sp. indet.	●		●	
	Lysiana murrayi			●	
Lythraceae	*Ammannia multiflora*			●	
	Ammannia sp. indet.			●	
Malvaceae	*Abutilon amplum*		●	●	
	Abutilon cryptopetalum		●	●	
	Abutilon cunninghamii		●	●	
	Abutilon fraseri subsp. *fraseri*	●	●	●	
	Abutilon lepidum		●	●	
	Abutilon leucopetalum		●		
	Abutilon macrum		●	●	
	Abutilon otocarpum	●	●	●	
	Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)		●		
	Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	●	●	●	
	Abutilon sp. indet.	●		●	
	Androcalva luteiflora	●	●	●	
	Brachychiton acuminatus		●	●	
	Corchorus crozophorifolius		●	●	
	Corchorus incanus subsp. *lithophilus*				●
	Corchorus lasiocarpus	●		●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Malvaceae cont.	*Corchorus lasiocarpus* subsp. *lasiocarpus*	●		●	
	Corchorus lasiocarpus subsp. *parvus*		●	●	
	Corchorus sidoides subsp. *sidoides*			●	
	Corchorus sp. indet.		●	●	
	Corchorus tridens	●	●	●	
	Gossypium australe	●		●	
	Gossypium robinsonii	●	●	●	
	Gossypium sturtianum var. *sturtianum*		●	●	
	Hibiscus ?sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)		●		
	Hibiscus brachychlaenus			●	
	Hibiscus burtonii	●	●	●	
	Hibiscus coatesii	●	●	●	
	Hibiscus leptocladus			●	
	Hibiscus sp. Gardneri (A.L. Payne PRP 1435)		●		
	Hibiscus sp. Gurinbiddy Range (M.E. Trudgen MET 15708) (P2)		●		●
	Hibiscus sp. indet.			●	
	Hibiscus sp. Mt Robinson (G. Byrne 3537)		●		
	Hibiscus sturtii		●	●	
	Hibiscus sturtii var. *campylochlamys*	●	●	●	
	Hibiscus sturtii var. *grandiflorus*		●		
	Hibiscus sturtii var. *platychlamys*	●	●	●	
	**Malvastrum americanum*	●	●	●	
	Melhania oblongifolia	●	●	●	
	Seringia exastia	●	●	●	
	Seringia nephrosperma			●	
	Sida ?echinocarpa			●	
	Sida ?fibulifera		●		
	Sida ?sp. Golden calyces glabrous (H.N. Foote 32)		●		
	Sida ?sp. Supplejack Station (T.S. Henshall 2345)	●			
	Sida arenicola		●	●	
	Sida calyxhymenia	●			

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Malvaceae cont.	*Sida cardiophylla*		●	●	
	Sida echinocarpa		●	●	
	Sida ectogama		●	●	
	Sida fibulifera	●	●	●	
	Sida platycalyx		●	●	
	Sida rohlenae subsp. *rohlenae*			●	
	Sida sp. Articulation below (A.A. Mitchell PRP 1605)			●	
	Sida sp. Barlee Range (S. van Leeuwen 1642) (P4)	●	●	●	●
	Sida sp. dark green fruits (S. van Leeuwen 2260)		●	●	
	Sida sp. Excedentifolia (J.L. Egan 1925)		●	●	
	Sida sp. Golden calyces glabrous (H.N. Foote 32)	●	●	●	
	Sida sp. indet.	●	●	●	
	Sida sp. L (A.M. Ashby 4202)	●	●	●	
	Sida sp. Pilbara (A.A. Mitchell PRP 1543)	●	●	●	
	Sida sp. Shovelanna Hill (S. van Leeuwen 3842)	●	●	●	
	Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	●	●	●	
	Sida sp. Supplejack Station (T.S. Henshall 2345)	●	●	●	
	Sida spinosa			●	
	Triumfetta appendiculata	●			
	Triumfetta chaetocarpa		●		
	Triumfetta leptacantha			●	
	Triumfetta maconochieana			●	
	Waltheria indica	●		●	
	Waltheria virgata			●	
Marsileaceae	*Marsilea hirsuta*			●	
	Marsilea sp. indet.		●		
Menispermaceae	*Tinospora smilacina*		●	●	
Molluginaceae	*Trigastrotheca molluginea*	●			
Montiaceae	*Calandrinia ?ptychosperma*		●		
	Calandrinia ptychosperma		●		

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Montiaceae cont.	*Calandrinia pumila*		●		
	Calandrinia sp. indet.		●	●	
Moraceae	*Ficus brachypoda*	●	●	●	
	Ficus platypoda			●	
Myrtaceae	*Calytrix carinata*	●		●	
	Corymbia candida subsp. *candida*		●		
	Corymbia deserticola subsp. *deserticola*	●	●	●	
	Corymbia ferriticola	●	●	●	
	Corymbia hamersleyana	●	●	●	
	Eucalyptus camaldulensis subsp. *refulgens*		●		
	Eucalyptus gamophylla	●	●	●	
	Eucalyptus kingsmillii		●	●	
	Eucalyptus leucophloia subsp. *leucophloia*	●	●	●	
	Eucalyptus repullulans		●	●	
	Eucalyptus trivalva		●	●	
	Eucalyptus victrix	●	●	●	
	Eucalyptus xerothermica	●	●	●	
Nyctaginaceae	*Boerhavia coccinea*	●	●	●	
	Boerhavia repleta		●	●	
	Boerhavia sp. indet.		●	●	
Oleaceae	*Jasminum didymum* subsp. *lineare*	●	●	●	
Ophioglossaceae	*Ophioglossum lusitanicum*		●	●	
Oxalidaceae	*Oxalis perennans*		●		
	Oxalis sp. Pilbara (M.E. Trudgen 12725) (P3)		●	●	●
Pedaliaceae	*Josephinia eugeniae*		●		
Phrymaceae	*Mimulus gracilis*			●	
	Peplidium muelleri		●		
	Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)		●		
Phyllanthaceae	*Dendrophyllanthus erwinii*		●	●	
	Nellica ?maderaspatensis	●			
	Nellica maderaspatensis	●	●	●	
	Notoleptopus decaisnei var. Orbicularis (A.B. Craig 428)		●	●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Plantaginaceae	*?Stemodia* sp. indet.	●			
	Stemodia grossa			●	
	Stemodia sp. indet.	●	●		
	Stemodia viscosa			●	
Plumbaginaceae	*Plumbago zeylanica*			●	
Poaceae	*?Bothriochloa ewartiana*	●			
	Acrachne racemosa	●			
	Amphipogon sericeus	●	●	●	
	Aristida ?inaequiglumis		●	●	
	Aristida burbidgeae		●	●	
	Aristida contorta	●	●	●	
	Aristida holathera var. *holathera*	●	●	●	
	Aristida inaequiglumis	●	●	●	
	Aristida jerichoensis var. *subspinulifera* (P3)		●	●	
	Aristida lazaridis (P3)	●	●	●	●
	Aristida obscura		●	●	
	Aristida pruinosa			●	
	Aristida sp. indet.	●		●	
	Bothriochloa ewartiana			●	
	**Bothriochloa pertusa*			●	
	**Cenchrus ciliaris*	●	●	●	
	**Cenchrus setiger*			●	
	**Chloris barbata*			●	
	Chloris pectinata		●	●	
	**Chloris virgata*		●	●	
	Chrysopogon fallax	●	●	●	
	Cymbopogon ambiguus	●	●	●	
	Cymbopogon obtectus		●	●	
	Cymbopogon sp. indet.	●			
	Dactyloctenium radulans		●	●	
	Dichanthium sericeum		●		
	Dichanthium sericeum subsp. *humilius*		●	●	
	Digitaria ammophila		●	●	
	Digitaria brownii	●	●	●	
	**Digitaria ciliaris*	●	●		

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Poaceae cont.	*Digitaria ctenantha*	●	●	●	
	**Echinochloa colona*			●	
	Enneapogon caerulescens		●	●	
	Enneapogon lindleyanus	●	●	●	
	Enneapogon polyphyllus	●	●	●	
	Enneapogon robustissimus		●	●	
	Enteropogon ramosus		●		
	Eragrostis cumingii	●	●	●	
	Eragrostis eriopoda		●	●	
	Eragrostis leptocarpa		●	●	
	Eragrostis olida	●		●	
	Eragrostis pergracilis		●	●	
	Eragrostis setifolia			●	
	Eragrostis sp. indet.	●	●		
	Eragrostis sp. Mt Robinson (S. van Leeuwen 4109) (P3)		●		
	Eragrostis tenellula			●	
	Eragrostis xerophila		●	●	
	Eriachne ?benthamii	●			
	Eriachne benthamii	●	●	●	
	Eriachne ciliata	●	●		
	Eriachne flaccida		●	●	
	Eriachne helmsii	●	●	●	
	Eriachne lanata	●	●	●	
	Eriachne mucronata	●	●	●	
	Eriachne pulchella		●	●	
	Eriachne pulchella subsp. *dominii*		●		
	Eriachne pulchella subsp. *pulchella*	●	●	●	
	Eriachne sp. indet.	●	●		
	Eriachne tenuiculmis			●	
	Eulalia aurea	●	●	●	
	Heteropogon contortus		●		
	Iseilema eremaeum		●	●	
	Iseilema membranaceum	●	●	●	
	**Melinis repens*		●	●	
	Panicum decompositum		●	●	
	Panicum effusum		●	●	

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Poaceae cont.	*Panicum* sp. indet.			●	
	Paraneurachne muelleri	●	●	●	
	Paspalidium clementii		●	●	
	Paspalidium constrictum			●	
	Paspalidium rarum		●	●	
	Paspalidium sp. indet.	●			
	Perotis rara	●	●	●	
	Schizachyrium fragile		●	●	
	Setaria dielsii			●	
	Setaria sp. indet.	●			
	Setaria surgens	●		●	
	**Setaria verticillata*	●		●	
	Sporobolus australasicus		●	●	
	Themeda sp. Hamersley Station (M.E. Trudgen 11431) (P3)			●	
	Themeda sp. Mt Barricade (M.E. Trudgen 2471)	●	●		
	Themeda triandra	●	●	●	
	Thyridolepis mitchelliana		●	●	
	Tragus australianus		●	●	
	Triodia biflora	●			
	Triodia brizoides		●	●	
	Triodia karijini (P2)				●
	Triodia longiceps		●		
	Triodia melvillei		●	●	
	Triodia pungens	●	●	●	
	Triodia sp. Mt Ella (M.E. Trudgen 12739) (P3)		●	●	●
	Triodia vanleeuwenii	●	●	●	
	Triodia wiseana	●	●	●	
	Tripogonella loliiformis		●	●	
	Urochloa distachyos			●	
	Urochloa occidentalis var. *ciliata*		●	●	
	Urochloa piligera		●		
Polygalaceae	*Polygala glaucifolia*		●	●	
	Polygala isingii		●		

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Portulacaceae	*Portulaca filifolia*		●		
	Portulaca oleracea		●	●	
	**Portulaca pilosa*			●	
Proteaceae	*Grevillea berryana*	●	●	●	
	Grevillea wickhamii	●	●	●	
	Grevillea wickhamii subsp. *aprica*	●		●	
	Grevillea wickhamii subsp. *hispidula*	●	●	●	
	Hakea chordophylla	●	●	●	
	Hakea lorea subsp. *lorea*	●	●	●	
Pteridaceae	*Cheilanthes austrotenuifolia*		●		
	Cheilanthes brownii	●	●	●	
	Cheilanthes sieberi subsp. *sieberi*	●	●	●	
	Cheilanthes sp. indet.	●			
	Pellaea reynoldsii		●	●	●
Rhamnaceae	*Cryptandra monticola*		●		
Rubiaceae	*?Dolichocarpa crouchiana*	●			
	Dolichocarpa crouchiana		●		
	Psydrax latifolia	●	●	●	
	Psydrax rigidula		●	●	
	Psydrax suaveolens		●	●	
	Spermacoce brachystema			●	
	Synaptantha tillaeacea var. *tillaeacea*		●		
Santalaceae	*Anthobolus leptomerioides*	●	●	●	
	Exocarpos sparteus		●	●	
	Santalum acuminatum			●	
	Santalum lanceolatum	●	●	●	
Sapindaceae	*?Dodonaea* sp. indet.	●			
	Atalaya hemiglauca	●			
	Diplopeltis stuartii var. *stuartii*			●	
	Dodonaea coriacea	●	●	●	
	Dodonaea lanceolata	●	●	●	
	Dodonaea lanceolata var. *lanceolata*	●		●	
	Dodonaea pachyneura		●	●	
	Dodonaea petiolaris		●		

FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Sapindaceae cont.	*Dodonaea viscosa* subsp. *?mucronata*			●	
	Dodonaea viscosa subsp. *mucronata*	●	●	●	
Scrophulariaceae	*Eremophila ?jucunda*	●		●	
	Eremophila caespitosa		●		
	Eremophila clarkei		●		
	Eremophila compacta		●		
	Eremophila flaccida		●		
	Eremophila forrestii subsp. *forrestii*	●	●	●	
	Eremophila forrestii x latrobei		●		
	Eremophila fraseri subsp. *fraseri*		●	●	
	Eremophila jucunda subsp. *pulcherrima*		●		
	Eremophila lachnocalyx		●	●	
	Eremophila lanceolata		●	●	
	Eremophila latrobei	●		●	
	Eremophila latrobei subsp. *filiformis*		●	●	
	Eremophila latrobei subsp. *glabra*		●		
	Eremophila latrobei subsp. *latrobei*	●	●	●	
	Eremophila longifolia	●	●	●	
	Eremophila magnifica subsp. *magnifica* (P4)		●	●	
	Eremophila magnifica subsp. *velutina* (P3)		●		
	Eremophila naaykensii (P3)		●	●	●
	Eremophila petrophila subsp. *petrophila*		●		
	Eremophila platycalyx			●	
	Eremophila platycalyx subsp. *pardalota*		●		
	Eremophila sp. indet.	●		●	
	Eremophila sp. West Angelas (S. van Leeuwen 4068) (P2)		●		●
Solanaceae	**Datura leichhardtii*			●	
	Nicotiana benthamiana			●	
	Nicotiana occidentalis			●	
	Nicotiana rosulata		●	●	
	Nicotiana sp. indet.		●	●	

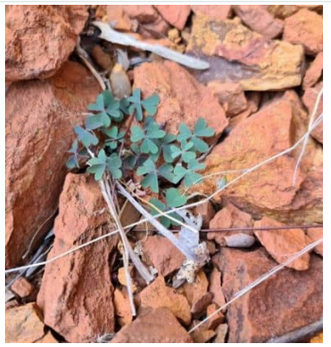
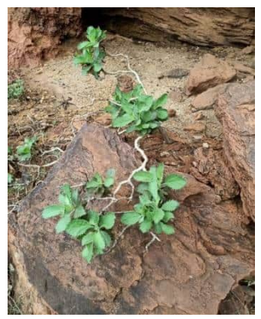
FAMILY	Taxon	Study Area			
		MAC to Yandi Rail Corridor	Mudlark Well	Pineapple Hill and Camp Hill	Outside Study Area
Solanaceae cont.	*Solanum ?cleistogamum*		●		
	Solanum ?ferocissimum			●	
	Solanum centrale		●		
	Solanum cleistogamum	●	●	●	
	Solanum ferocissimum		●	●	
	Solanum gabrielae			●	●
	Solanum horridum		●		
	Solanum kentrocaule (P3)		●		
	Solanum lasiophyllum	●	●	●	
	**Solanum nigrum*			●	
	Solanum phlomoides			●	
	Solanum piceum		●	●	
	Solanum sp. indet.	●	●	●	
Surianaceae	*Stylobasium spathulatum*	●		●	
Thymelaeaceae	*Pimelea microcephala* subsp. *microcephala*				●
Typhaceae	*Typha domingensis*			●	
Violaceae	*Afrohybanthus aurantiacus*	●	●	●	
Zygophyllaceae	*Tribulopis angustifolia*			●	
	Tribulus ?hirsutus			●	
	Tribulus astrocarpus		●	●	
	Tribulus hirsutus			●	
	Tribulus macrocarpus	●			
	Tribulus platypterus			●	
	Tribulus sp. indet.		●	●	
	Tribulus suberosus	●	●	●	
	**Tribulus terrestris*		●	●	

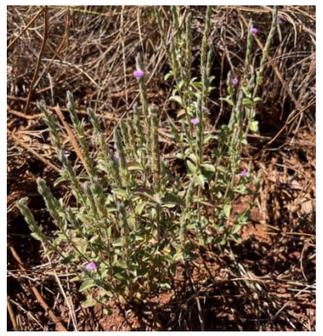
Appendix N: Significant flora within the Study Area

Description	Habitat	Results of detailed survey assessment	Representative floristic material / habit and/or habitat
Priority 2			
***Eremophila* sp. West Angelas (S. van Leeuwen 4068)** Erect-branched or tall spindly shrub with narrow leaves and purple flowers and growing to 3 m in height (WAH, 1998 -). Branches can be either drooping or upright, sometimes pendulous, filiform, non-tuberculate, sparsely pubescent at first and glandular when mature. Flowers are purple/ white with the corolla medial lobe of the lower lip completely closing over the throat (fruiting and flowering in September to October) (Rio Tinto & WAH, 2015).	*Eremophila* sp. West Angelas (S. van Leeuwen 4068) is recorded from scattered localities in the Pilbara near West Angelas and is known to grow on rocky hills or ridges, but also from mulga bands in clay soil between rocky ridges.	This taxon occurred within vegetation type GG AaAcaoEll DopErtiErjp TpTw within the Mudlark Well area, totalling 21 individuals from five point-locations. This taxon was also recorded from outside of the Study Area northwest of the Pineapple Hill and Camp Hill area, totalling 51 individuals from two point-locations.	 Source: Rare and Priority Plants of the Pilbara app (Rio Tinto & WAH, 2015).
***Hibiscus* sp. Gurinbiddy Range (M.E. Trudgen MET 15708)** Large perennial shrub growing to 2.5 m in height, with cream-brown to rusty brown, erect, stellate hairs densely covering all vegetative parts (appearing woolly in texture). Flowers are 5-petaled, pale mauve in colour with darker mauve marking at the base, and has been recorded flowering from March through to August (Rio Tinto & WAH, 2015; WAH, 1998 -).	*Hibiscus* sp. Gurinbiddy (M.E. Trudgen MET 15708) is known to occur in sheltered or rocky drainage lines below associated cliff-lines or rocky ridges and has been recorded from only ranges in the south-east of the Pilbara region (Rio Tinto & WAH, 2015).	This taxon was recorded in gorge gullies, hillcrest/ upper hillslope, hillslopes, and minor and medium drainage lines from the Mudlark Well area and from outside of the Study Area. Associated vegetation included *Triodia* hummock grassland, *Themeda* tussock grassland, *Callitris* low open forest, *Corymbia* low woodland, mulga low woodland, and *Acacia* open scrub.	 Source: Biologic photos from current survey and previous Pilbara survey.
Triodia karijini Perennial grass forming lax hummocks up to 1 m tall. Leaves are soft, recurved to sinuous with sparse (or absent) to moderate resin present on some leaf blades. The inflorescence is a panicle with spikelets (flowers) 6.8 – 8 mm long (Rio Tinto & WAH, 2015).ji	*Triodia karijini* has been recorded in stony soils from the upper slopes and summits of hills within Karijini National Park and surrounds (Rio Tinto & WAH, 2015).	This taxon was recorded on hillcrest/ upper hillslopes outside of the Study Area, northwest of the Pineapple Hill and Camp Hill area of the Study Area.	  Source: Photo (L) Biologic photo from current survey; Photo (R) (Rio Tinto & WAH, 2015).

Description	Habitat	Results of detailed survey assessment	Representative floristic material / habit and/or habitat
Priority 3			
Aristida jerichoensis* var. *subspinulifera Compactly tufted perennial tussock grass, growing to 0.8 m in height (WAH, 1998 -). Leaves are 10-25 cm long, 1-2 mm wide and can be flat, folded together lengthwise, rolled, or with the edges rolled inwards. Leaves are bristly on the upper surface, more or less hairless on the lower surface and have a hairless sheath at the base (Wood, 2022). The plant produce a 100-350 mm long panicle bearing spikelets (flowers) almost to the base, with muricate lemma furrows (Rio Tinto & WAH, 2015).	This species is known to occur on hardpan plains with deep soil in open *Acacia* woodlands over *Triodia* species and other grasses. This taxon has been recorded in all mainland Australian states; currently it is known to occur in WA across the Hamersley Range in the Pilbara as well as three records in adjacent bioregions (WAH, 1998 -).	This taxon was found across drainage areas/ floodplains, stony plains and footslopes in mulga woodland/ forest and hummock and tussock grasslands, within 12 different vegetation types, from within the Mudlark Well, and Pineapple Hill and Camp Hill areas.	  Source: Biologic photos from current survey
Aristida lazaridis Tufted perennial, grass-like or herb, growing to 1.5 m in height and produces green/purple flowers in April (WAH, 1998 -). The leaf blade surface of *A. lazaridis* are characteristically scaberulous, rough on both sides and panicles are loose and branching. This taxon is confined to sandy or loamy soils (Rio Tinto & WAH, 2015).	*Aristida lazaridis* is widespread and distributed in tropical Queensland, the Northern Territory and Western Australia, where it is known from the Kimberley and the Pilbara; between Newman and Karijini.	This taxon was found across a variety of landforms (drainage area/ floodplains, footslopes, hillslopes, minor to major drainage lines, and stony plains) across all three areas of the Study Area. Associated vegetation included mulga woodland/ forest, hummock and tussock grasslands and *Eucalyptus* open forest.	  Source: Biologic photos from current survey
***Eragrostis* sp. Mt Robinson (S. van Leeuwen 4109)** Tussock-forming grass growing up to 0.3 m in height, producing red-brown flowers during September (WAH, 1998 -). It has a woolly base with wiry, scabrous culms and stiff, involute leaf blades (Rio Tinto & WAH, 2015).	This taxon is restricted to hill summits and steep slopes on skeletal soil over banded ironstone, and is found northeast of Newman on Mt Meharry, Mt Robinson and Rhodes Ridge (WAH, 1998 -).	One individual was recorded from Mudlark Well area during the survey in vegetation type HC Tp(TvTw) Ell Segg.	  Source: Biologic photos from current survey

Description	Habitat	Results of detailed survey assessment	Representative floristic material / habit and/or habitat
Eremophila magnifica* subsp. *velutina Shrub growing 0.5-1.5 m in height. It produces blue-purple flowers in Aug to Sep (WAH, 1998 -).	This taxon in known to occur on skeletal soils over ironstone and on summits (WAH, 1998 -). It has been recorded in the Gascoyne (Augustus subregion) and Pilbara (Hamersley subregion) regions (WAH, 1998 -).	This taxon was found across *Triodia* hummock grassland and was recorded at Mudlark Well opportunistically. It was present within three vegetation types: FS Tv CddHc AancAiGrwh, HC TwTvTp EllCh Ah, SP TpTm AaExAcao ApaErffAads.	  Source: Biologic photo from other Pilbara survey
Eremophila naaykensii Erect shrub growing to 3.5 m in height with young stems having an indumentum of fine, grey to yellowish simple hairs. Older stems are grey to very pale grey, with slightly fissured bark, with prominently raised and knob-like leaf scars (Curtis *et al.*, 2022). Leaves are pale green/ grey-blue with a covering of velutinous white-grey hairs. Flowers of *E. naaykensii* can be cream, pale blue, lilac, pale yellow, pink or purple, sometimes with spots on the upper lobe; flowering and fruiting from June to October (Curtis *et al.*, 2022; Rio Tinto & WAH, 2015).	The species is known to occur on open rocky slopes, gullies and rock faces associated with large hills and cliffs. *E. naaykensii* has been recorded within the southern central area of the Pilbara region and is often found occurring in high abundance (WAH, 1998 -).	This taxon was found across several landforms, including gorge gully, hillcrest/ upper hillslope, hillslope, footslopes and medium drainage lines from the Mudlark Well, and Pineapple Hill and Camp Hill areas, as well as outside of the Study Area to the northwest of Pineapple Hill and Camp Hill. The dominant vegetation layer associated with *E. naaykensii* was *Triodia* hummock grassland, but it was also associated with woodland/ forest of *Corymbia ferriticola*, *Callitris columellaris*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Ficus brachypoda*, and *Themeda* tussock grassland.	  Source: Photo (L) Biologic photo from current survey, Photo (R) Curtis *et al.* (2022)
Indigofera gilesii A sparsely branched, open shrub, growing up to 2 m in height. Leaflets are grey with small, persistent stipules. Flowers a dull dark pink with a white centre, June to October (WAH, 1998 -). Leaflets of this taxa are grey, slightly discolourous and have small, persistent stipules. *Indigofera gilesii* has been recorded as flowering and fruiting from June to October; flowers are dull dark pink with a white centre (Rio Tinto & WAH, 2015).	*Indigofera gilesii* is known from open mallee shrublands on pebbly loam, amongst boulders and outcrops/hill on skeletal soils (more specifically on soils overlaying ironstone geologies of the Brockman Iron Formation) (Rio Tinto & WAH, 2015). It has been recorded from the south-eastern Pilbara around Newman, Giles and Rhodes Ridge in Western Australia, as well as most other mainland states.	This taxon was found in vegetation types HC Tp(TvTw) Ell Segg and HC TwTvTp EllCh Ah, within *Triodia* hummock grassland from the Mudlark Well, and MAC to Yandi Rail Corridor areas. Other associated flora included *Acacia hamersleyensis, Eucalyptus leucophloia* subsp. *leucophloia, E. kingsmillii* subsp. *kingsmillii, E. gamophylla,* and *Corymbia hamersleyana*.	  Source: Biologic photo from other Pilbara survey

Description	Habitat	Results of detailed survey assessment	Representative floristic material / habit and/or habitat
Ipomoea racemigera Creeping annual, herb or climber with twining stems (WAH, 1998 -). Leaves of *I. racemigera* are ovate to ovate-elliptic, with a distinctly glabrous upper surface and sparsely hairy lower surface. This species produces small (12-20 mm wide), white, funnel-shaped flowers throughout the year, mainly during March to August (Rio Tinto & WAH, 2015).	*Ipomoea racemigera* is known to occur on sandy soils along watercourses in Western Australia, the Northern Territory and Queensland. There are currently 18 records for this species (each of which has a corresponding specimen held at WAH) (WAH, 1998 -).	All individuals were found within medium drainage lines in vegetation type ME TtEuaCya ExCh AnlApyErlo from within the Pineapple Hill and Camp Hill area.	  Source: Biologic photos from previous Pilbara Survey
***Oxalis* sp. Pilbara (M.E. Trudgen 12725)** Small, trailing or tufted, three-leaved herb growing to 0.3 m in height. Branches of this species are either erect or ascending, sometimes creeping and are sparsely to densely hairy. *Oxalis* sp. Pilbara (M.E. Trudgen 12725) produces small yellow flowers with triangular sepals (Rio Tinto & WAH, 2015). Flowering of this species has previously been recorded in May - June and September (WAH, 1998 -).	This species has been found to occur in shaded areas around rock outcrops and gullies and its distribution is restricted to the southern Pilbara to the west of Newman (Rio Tinto & WAH, 2015).	Individuals of this taxon were recorded from Mudlark Well, and Pineapple Hill and Camp Hill areas in vegetation types GG CcolCfEll ErmuThmbCya and ME BoeTtChf AaEv Sal. This taxon was also recorded from outside the Study Area. Associated vegetation was *Callitris* low open forest and *Eriachne* tussock grassland.	  Source: Biologic photos from previous Pilbara Survey
Pilbara trudgenii *Pilbara trudgenii* is a gnarled, aromatic shrub in the Daisy family growing to 1 m in height (WAH, 1998 -). The bark is fissured and fibrous, mottled cream and grey becoming dark grey. Leaves are crowded apically, with distinct reticulate venation, pustulate surfaces, and a prominent midvein (Rio Tinto & WAH, 2015). *Pilbara trudgenii* produces white flowers during September (WAH, 1998 -).	This species has been recorded sporadically from cliff faces, steep rocky slopes and rock screes; it is usually found on skeletal red and stony soils over Brockman Ironstone. *Pilbara trudgenii* is distributed within the central Pilbara between Mt. Robinson and Paraburdoo (Rio Tinto & WAH, 2015).	This taxon was found in three different vegetation types on gorge gullies and hillcrest/ upper hillslopes from the Mudlark Well area. Associated flora included *Acacia aptaneura* (mulga), *Triodia pungens, Callitris columellaris, Corymbia ferriticola, Dodonaea pachyneura, Senna glutinosa* subsp. *glutinosa* and *Eriachne mucronata*.	  Source: Photo (L) Biologic photo from current survey; Photo (R) (Rio Tinto & WAH, 2015).

Description	Habitat	Results of detailed survey assessment	Representative floristic material / habit and/or habitat
***Rhagodia* sp. Hamersley (M. Trudgen 17794)** A scrambling shrub with small lanceolate leaves (not aromatic, unlike that of the superficially similar and co-occurring species *Rhagodia eremaea*), growing up to 4 m in height. Branches of this taxon are slender, ribbed-striate and white-furfuraceous. It produces white flowers (both male and female flowers) and small red drupelets (fruit) from March to May or September and November (WAH, 1998 -).	*Rhagodia* sp. Hamersley (M. Trudgen 17794) is known from mulga woodlands and on cracking clays; and has been recorded within the Pilbara from the northwest of Tom Price to Jigalong (east of Newman) (Rio Tinto & WAH, 2015; WAH, 1998 -).	This taxon was recorded across many landforms and vegetation types, including drainage area/ floodplains (seven vegetation types), stony plains (five vegetation types), gorge gullies (two vegetation types), hillslopes (two vegetation types) and one vegetation type on a medium drainage line. It was recorded from within the Mudlark Well, and Pineapple Hill and Camp Hill areas of the Study Area. Associated vegetation was primarily mulga woodland/ forest, *Triodia* hummock grassland, and *Themeda* tussock grassland.	  Source: Biologic photo from other Pilbara survey
Rostellularia adscendens* var. *latifolia *Rostellularia adscendens* var. *latifolia* is a small herb or shrub with hairy to glabrous leaves, angular stems, and grows to 0.4 m in height. It produces small blue-purple-violet flowers from April to May, which are covered by conspicuous bracts (Rio Tinto & WAH, 2015; WAH, 1998 -).	This species is found in protected areas near watercourses, or along shaded rocky ridges, often in dry gullies and gorges on ironstones soils. It is known to be heavily grazed at times. Whilst *R. adscendens* is found across Australia as well as Africa, India, and South-East Asia, this variant (*R. a*. var. *latifolia*) is restricted to the Pilbara region of WA (Rio Tinto & WAH, 2015).	This taxon was found on gorge gullies, hillcrest/ upper hillslopes, hillslopes, and medium drainage lines, in *Callitris columellaris* woodland/ forest, *Triodia* hummock grassland, and *Themeda* or *Eriachne* tussock grassland. It was recorded from all three areas of the Study Area as well as outside the Study Area.	  Source: Biologic photo from other Pilbara survey
Solanum kentrocaule Shrub growing to 1.5 m in height. Branchlets are terete or ridged, white to yellow brown, with a dense to very dense prickly indumentum. Prickles are long, slender, to 12 mm in length, with between 200 – 1,000 prickles per 10 cm of stem. The upper leaf surface is green to grey-green with prickles present on the midvein and lateral veins (Bean, 2013). *Solanum kentrocaule* flowers from July to October, producing mauve or purple flowers, and fruits in September (Rio Tinto & WAH, 2015).	*Solanum kentrocaule* is found on hillsides and mountains, or occasionally in creek-beds. It occurs in skeletal red-brown soil over ironstone or on basalt scree (Rio Tinto & WAH, 2015). The species is known only from the Hamersley Range in the Pilbara.	This taxon was recorded across gorge gullies and hillcrest/ upper hillslopes from the Mudlark Well area. Associated vegetation was *Triodia* hummock grassland, and forest/ woodland of either *Callitris columellaris, Corymbia ferriticola*, or *Acacia aptaneura* (mulga).	  Source: Biologic photo from other Pilbara survey

Description	Habitat	Results of detailed survey assessment	Representative floristic material / habit and/or habitat
***Themeda* sp. Hamersley Station (M.E. Trudgen 11431)** Robust perennial tussock grass growing to 1.8 m in height and is described as having a 'bluish tinge' to the vegetated tussock. The species is known to flower in August and fruit after rains, usually late in the season (Rio Tinto & WAH, 2015).	It has been recorded from drainage lines, grass plains, clay flats, crabhole flats and dark, self-mulching clay soils; distributed only within the Pilbara of Western Australia (Rio Tinto & WAH, 2015).	This taxon was found on drainage areas/ floodplains and stony plains from the Pineapple Hill and Camp Hill area within vegetation types dominated by *Acacia aptaneura* (mulga), *Triodia pungens*, or *Themeda triandra*.	  Source: (Rio Tinto & WAH, 2015).
***Triodia* sp. Mt Ella (M.E. Trudgen 12739)** A diffuse and loose, hard perennial hummock grass growing to 0.4 m in height and to 1.5 m in width (WAH, 1998 -). Leaves are a bright mid-green, shiny, very resinous and distinctively aromatic. The flowering and fruiting period for this species has been recorded as between May and August (Rio Tinto & WAH, 2015).	This species has been recorded from hillslopes and crests as well as occasionally ephemeral creek banks, flow lines and rocky gullies. This species prefers skeletal light orange-brown pebbly, loam soils over ironstone amongst rocks and outcrops within its habitats. Its distribution is restricted to a small area between Newman and West Angelas and also Rhodes Ridge (Rio Tinto & WAH, 2015; WAH, 1998 -).	This taxon was found across a variety of landforms, including gorge gullies, hillcrest/ upper hillslopes, hillslopes, and medium drainage lines. It mainly occurred within *Triodia* hummock grassland, but was also found within *Themeda* tussock grassland, *Callitris* forest/ woodland, and mulga woodland. It was recorded from the Mudlark Well, and Pineapple Hill and Camp Hill areas, as well as from outside the Study Area.	  Source: Biologic photo from current survey
***Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684)** An erect, branched (somewhat woody) herb growing up to 1 m in height with scabrous hairs and bright light green stems. This taxon produces daisy flowers with white ray florets and light yellow disc florets, from May to September (Rio Tinto & WAH, 2015).	This taxon has been recorded from clay-loam soils, clays, cracking-clays and gilgai, usually in association with low open woodlands and frequently with mulga (Rio Tinto & WAH, 2015). It is endemic to the Pilbara and is found primarily from Tom Price to Newman (WAH, 1998 -).	One individual of this taxon was recorded in vegetation type FP Aa TtAri Pto (low open forest of *Acacia aptaneura* over tussock grassland of *Themeda triandra* and *Aristida inaequiglumis* with low open shrubland of *Ptilotus obovatus* on drainage zones) from within the Pineapple Hill and Camp Hill area.	 Source: (Rio Tinto & WAH, 2015).

Description	Habitat	Results of detailed survey assessment	Representative floristic material / habit and/or habitat
Priority 4			
Eremophila magnifica* subsp. *magnifica An erect aromatic shrub growing to 1.5 m in height and produces pale whiteish lilac, lilac or pinkish lilac, from August to November (WAH, 1998 -). The leaves of this taxa are glabrous except for prominently ciliate margins (Rio Tinto & WAH, 2015).	This taxon has previously recorded as growing on rocky slopes in open *Eucalyptus* and *Acacia* shrublands often associated with species of *Triodia, Ptilotus* and *Dodonaea* and is restricted to the Hamersley Range in the Pilbara (WAH, 1998 -).	This taxon was found on either hillslopes, hillcrest/ upper hillslopes, gully gorges or stony plains in the Mudlark Well, and Pineapple Hill and Camp Hill areas, in *Triodia* hummock grassland or *Corymbia* low woodland, with associated species including *Acacia hamersleyensis*, *Eucalyptus leucophloia* subsp. *leucophloia*, *Eucalyptus kingsmillii* subsp. *kingsmillii* and *Acacia aptaneura* (mulga).	 Source: Biologic photo from current survey
Lepidium catapycnon An open, perennial shrub, growing to 0.75 m in height. It has distinctive zigzag stems with succulent, linear terete leaves. *L. catapycnon* produces white flowers in a dense terminal raceme and is known as a pioneer fire ephemeral, disappearing as vegetation matures (Rio Tinto & WAH, 2015).	*Lepidium catapycnon* is endemic to the Pilbara region and is distributed primarily across the Hamersley Ranges from Tom Price east to Newman (WAH, 1998 -).	This taxon was recorded in vegetation types FS Tv EllCdd AbSolAten and HC TwTvTp EllCh Ah on and around Mount Robinson from within the Mudlark Well area.	 Source: Biologic photo from other Pilbara survey
***Sida* sp. Barlee Range (S. van Leeuwen 1642)** A spreading shrub, growing to 0.5 m in height (WAH, 1998 -). This species is described as being a rounded, densely woolly to velvety and somewhat woody shrub, with ovate, deeply-veined leaves and yellow flowers (flowering occurring in August; has been recorded flowering/fruiting from May to September) (Rio Tinto & WAH, 2015).	*Sida* sp. Barlee Range (S. van Leeuwen 1642) is known to grow in skeletal soils (particularly red soil pockets) in rocky areas, especially scree slopes and rock piles in full sun to afternoon shade, or in small chines and gullies. It has been recorded widely in the southern Pilbara and northern Gascoyne, especially common in the Brockman area west of Tom Price (Rio Tinto & WAH, 2015).	This taxon occurred across gorge gullies, hillcrest/ upper hillslopes, hillslopes, and drainage areas/ floodplains, within *Triodia* hummock grassland, *Themeda* tussock grassland, and mulga woodland. It was recorded from all areas of the Study Area as well as outside the Study Area.	 Source: Biologic photo from current survey