A1. Results of the DEC Database Searches for Rare and Priority Flora

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Priority	Species	Location
Rare	*Lepidium catapycnon*	Wittenoom Gorge, Hamersley Range, Weeli Wolli, Newman
	Thryptomene wittweri	Hamersley Range, Mt Augustus, Carnarvon Range, White Cliffs Stn, NT
1	*Barbula ehrenbergii*	Dale's Gorge, Hamersley Range
	Calotis squamigera	Wittenoom, Hamersley Range
	Eragrostis sp. Mt Robinson (S.van Leeuwen 4109)	Hamersley Range
	Eremophila spongiocarpa	Mt Marsh, Chichester Range, Marillana Station, Mulga Downs Station
	Genus sp. Hamersley Range hilltops (S van Leeuwen 4345)	Hamersley Range
	Myriocephalus nudus	Hamersley Range, Paynes Find, Yannarie River, Juna Downs, Swan River (Drummond)
	Rhagodia sp. Hamersley (M. Trudgen 17794)	Hamersley Range
	Sida sp. Pilbara (S. van Leeuwen 4377)	Hamersley Range, Lawloit Range
	Tetratheca fordiana	West Angelas, Hamersley Range
2	*Acacia daweana*	Hamersley Range, Karijini N.P.
	Eremophila forrestii subsp. *Pingandy* (M.E. Trudgen 2662)	Karijini NP, Hamersley Range NP, Turee Creek Stn
	Olearia fluvialis	Hamersley Range, Karijini N.P., West Angelas, Newman
	Pilbara trudgenii	Hamersley Range
	Scaevola sp. Hamersley Range basalts (S. van Leeuwen 3675)	Hamersley Range
	Spartothamnella puberula	Mt Bruce, Hamersley Range, West Angelas, NT
3	*Acacia bromilowiana*	Tom Price, Balfour Downs Stn, West Angelas, Hope Downs, Hamersley Range, Marillana Stn, Ophthalmia Range
	Acacia subtiliformis	Hamersley Range, Hancock Range, Ophthalmia Range, Hope Down North, Marillana Stn
	Calotis latiuscula	Giles, Warburton, Blackstone Range, Rawlinson Range, Hamersley Range
	Cynanchum sp. Hamersley (M Trudgen 2302)	Hamersley Range, Marandoo, Turner Syncline, West Angelas
	Dampiera anonyma	Mt Bruce, Mt Nameless, Hamersley Range, Mt Sheila, Karijini NP
	Dampiera metallorum	Hamersley Range, Mt Meharry, West Angelas, Karijini NP
	Eremophila magnifica subsp. *velutina*	Hamersley Range, Newman, Marandoo
	Fimbristylis sieberiana	Hamersley Range, Millstream, Fitzroy Crossing, King Leopold Range, Halls Creek, Little Sandy Desert
	Geijera salicifolia	Mt Samson, Mt Howieson, Tom Price, Hamersley Range, Qld, NT
	Hibiscus brachysiphonius	Balgo Mission, Christmas Creek,Wandagee, Karratha, Tom Price, Millstream, Warrawagine, Hamersley Range
	Indigofera gilesii subsp. *gilesii*	Hamersley Range, Meekatharra, West Angelas
	Polymeria sp. Hamersley (ME Trudgen 11353)	Hamersley Stn, Wittenoom, Marandoo,Hamersley Range
	Rhynchosia bungarensis	Hamersley Range, Chichester Ranges, Yardie Creek, Robe River, Tom Price, Ashburton, East Lewis Island, Burrup, Dampier Archipelago
	Rostellularia adscendens subsp.*adscendens* var.*latifolia*	Hamersley Range

Priority	*Species*	Location
3	*Sida* sp. Barlee Range (S van Leeuwen 1642)	Barlee Range, Turee Creek, Paraburdoo, Hamersley Range
	Tephrosia sp. Cathedral Gorge (FH Mollemans 2420)	Newman, Hamersley Range, Fortescue Valley
	Triodia sp. Mt. Ella (ME Trudgen 12739)	Hamersley Range, Mt Ella
	Triumfetta leptacantha	Hamersley Range, Marandoo
4	*Eremophila magnifica* subsp. *magnifica*	Hamersley Range, Tom Price, Marandoo, Wittenoom

Note: these results have been compiled from all database search results.

A2. Quadrat Locations and Vegetation Condition

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Phase	Name	Zone	Easting (mE)	Northing (mN)	Vegetation Condition
Phase 1	A01	50K	729103	7505239	Good
	A05	50K	734476	7497191	Poor
	A06	50K	737392	7493100	Poor
	A07	50K	736467	7495866	Poor
	A08	50K	733679	7495141	Excellent
	A09	50K	726866	7500762	Good
	A11	50K	728027	7499782	Good
	A12	50K	727371	7502554	Good
	A13	50K	726793	7503724	Good
	A14	50K	728019	7502796	Good
	A15	50K	727243	7504575	Poor
	A17	50K	727296	7505798	Good
	A19	50K	728482	7506031	Poor
	A20	50K	729978	7503418	Good
	A22	50K	728662	7501007	Good
	A24	50K	731273	7501331	Poor
	A25	50K	730924	7499980	Good
	A26	50K	729505	7498978	Poor
	A27	50K	730709	7498860	Excellent
	A28	50K	730799	7498102	Poor
	A29	50K	733534	7496787	Good
	A30	50K	731957	7497731	Good
	A31	50K	734360	7496195	Good
	A32	50K	732365	7496584	Good
	A33	50K	733629	7499695	Poor
	A34	50K	732055	7504106	Poor
	A35	50K	732154	7503431	Poor
	A36	50K	732809	7502352	Good
	A38	50K	735509	7501121	Good
	A39	50K	733933	7501040	Poor
	A40	50K	736101	7502151	Poor
	A42	50K	736954	7500731	Poor
	A43	50K	737524	7499296	Poor
	A45	50K	737663	7498365	Poor
	A46	50K	735525	7500355	Good
	A47	50K	735382	7499112	Good
	A48	50K	735721	7498007	Poor
	A50	50K	738027	7502211	Poor
	A51	50K	737986	7499203	Poor
	A52	50K	736517	7493377	Good
	A53	50K	732979	7497129	Good
	A54	50K	733079	7498193	Poor
	A55	50K	731815	7499681	Good
	A56	50K	730932	7504055	Poor
	A57	50K	731339	7503007	Poor
	A58	50K	734504	7501947	Poor
	A59	50K	733233	7501852	Good
	A60	50K	735673	7496904	Poor
	A61	50K	734251	7502478	Poor
	A62	50K	735861	7502541	Poor
	A63	50K	732751	7503031	Poor
	A64	50K	732900	7504177	Good

Phase	Name	Zone	Easting (mE)	Northing (mN)	Vegetation Condition
Phase 1	A65	50K	727115	7505519	Poor
	A66	50K	727800	7504520	Good
	A67	50K	727800	7504765	Excellent
	A68	50K	728714	7504301	Good
	A69	50K	728788	7502219	Excellent
	A71	50K	726429	7505985	Good
	A72	50K	727476	7501125	Good
	A74	50K	738080	7500914	Good
	A75	50K	736797	7501443	Good
	A77	50K	735081	7494023	Good
	A80	50K	731303	7497518	Excellent
	A81	50K	729168	7499069	Good
	A82	50K	730014	7500634	Good
Phase 2	B01	50K	732964	7501099	Poor
	B02	50K	735088	7499895	Poor
	B03	50K	736818	7498525	Good
	B04	50K	737938	7500388	Poor
	B05	50K	727283	7505373	Good
	B06	50K	736675	7500300	Poor
	B07	50K	733929	7502307	Poor
	B08	50K	727845	7504512	Poor
	B09	50K	730515	7503067	Poor
	B10	50K	728643	7503839	Excellent
	B11	50K	726586	7504841	Poor
	B12	50K	728257	7505664	Good
	B13	50K	727969	7506100	Excellent
	B14	50K	737663	7494254	Good
	B15	50K	737270	7495145	Poor
	B16	50K	728124	7499745	Poor
	B17	50K	729201	7500954	Poor
	B18	50K	726645	7502802	Good
	B19	50K	727842	7504573	Good
	B20	50K	732120	7496923	Excellent
	B21	50K	729405	7503923	Excellent
	B22	50K	728836	7503277	Good
	B23	50K	728065	7503607	Poor
	B24	50K	730798	7500650	Poor
	B25	50K	732230	7500574	Poor
	B26	50K	736436	7495448	Poor
	B27	50K	734723	7501124	Poor
	B28	50K	736948	7502119	Poor
	B29	50K	736022	7500939	Poor
	B30	50K	733927	7500428	Good
	B31	50K	737599	7496274	Poor
	B32	50K	737897	7496570	Good
	B33	50K	737039	7496940	Poor
	B34	50K	734638	7498014	Poor
	B35	50K	734172	7499082	Poor
	B36	50K	735456	7496041	Poor
	B37	50K	735965	7493452	Poor
	B38	50K	736183	7494253	Poor
	B39	50K	735331	7494950	Poor
	B40	50K	734806	7495048	Excellent

Phase	Name	Zone	Easting (mE)	Northing (mN)	Vegetation Condition
Phase 2	B41	50K	735133	7494482	Good
	B42	50K	733754	7495797	Poor
	B43	50K	732991	7496640	Poor
	B44	50K	730868	7498927	Excellent
	B45	50K	732224	7498565	Good
	B46	50K	730901	7497729	Excellent
	B47	50K	731626	7498002	Excellent
	B48	50K	730022	7498562	Good
	B49	50K	730129	7498107	Good
	B50	50K	728896	7499695	Good
	B51	50K	727874	7500189	Poor
	B52	50K	728369	7500588	Excellent
	B53	50K	728000	7501299	Good
	B54	50K	727361	7501731	Good
	B55	50K	726814	7502060	Good
Both Phases (repeated sites)	R02	50K	730229	7503733	Poor
	R03	50K	731994	7501900	Poor
	R04	50K	732537	7499035	Good
	R10	50K	727325	7500416	Excellent
	R16	50K	729520	7502769	Poor
	R18	50K	728288	7505261	Poor
	R21	50K	730919	7502630	Poor
	R23	50K	729545	7501506	Excellent
	R37	50K	735010	7502135	Poor
	R41	50K	737484	7501609	Poor
	R44	50K	736198	7499181	Good
	R49	50K	736254	7494928	Poor
	R70	50K	727969	7502067	Good
	R73	50K	729307	7500306	Excellent
	R76	50K	737567	7492245	Poor
	R78	50K	733148	7495985	Good
	R79	50K	731928	7497342	Excellent

Datum GDA94 / WGS84

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A3. Site Information (To be Included Electronically)

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A4. Vegetation Structural Table used in Vegetation Descriptions

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Height classes used for vegetation classification (Department of Environment and Heritage, 2003).

Height Class	Height Range (m)	Tree	Shrub	Mallee	Grass
8	>30	tall	NA	NA	NA
7	10-30	mid	NA	tall	NA
6	<10	low	NA	mid	NA
5	<3	NA	NA	low	NA
4	>2	NA	tall	NA	tall
3	1-2	NA	mid	NA	tall
2	0.5-1	NA	low	NA	mid
1	<0.5	NA	low	NA	low

Structural Formation Classes (Department of Environment and Heritage, 2003).

Growth Form	Height (m)	Structural Formation Classes					
Foliage cover % (cover #)		70-100% (5)	30-70% (4)	10-30% (3)	<10% (2)	0-5% (1)	≈0% (N)
Tree	<10,10-30, >30	closed forest	open forest	woodland	isolated clumps of trees	isolated trees	isolated clumps of trees
Tree mallee	<3, <10, 10-30	closed mallee forest	open mallee forest	mallee woodland	isolated clumps of mallee trees	isolated mallee trees	isolated clumps of mallee trees
Shrub	<1,1-2,>2	closed shrubland	shrubland	open shrubland	isolated clumps of shrubs	isolated shrubs	isolated clumps of shrubs
Mallee shrub	<3, <10, 10-30	closed mallee shrubland	mallee shrubland	open mallee shrubland	isolated clumps of mallee shrubs	isolated mallee shrubs	isolated clumps of mallee shrubs
Heath shrub	<1,1-2,>2	closed heathland	heathland	open heathland	isolated clumps of heath shrubs	isolated heath shrubs	isolated clumps of heath shrubs
Chenopod shrub	<1,1-2,>2	closed chenopod shrubland	chenopod shrubland	open chenopod shrubland	isolated clumps of chenopod shrubs	isolated chenopod shrubs	isolated clumps of chenopod shrubs
Samphire shrub	<0.5,>0.5	closed samphire shrubland	samphire shrubland	open samphire shrubland	isolated clumps of samphire shrubs	isolated samphire shrubs	isolated clumps of samphire shrubs
Hummock grass	<2,>2	closed hummock grassland	hummock grassland	open hummock grassland	isolated clumps of hummock grasses	isolated hummock grasses	isolated clumps of hummock grasses
Tussock grass	<0.5,>0.5	closed tussock grassland	tussock grassland	open tussock grassland	isolated clumps of tussock grasses	isolated tussock grasses	isolated clumps of tussock grasses
Sedge	<0.5,>0.5	closed sedgeland	sedgeland	open sedgeland	isolated clumps of sedges	isolated sedges	isolated clumps of sedges
Rush	<0.5,>0.5	closed rushland	rushland	open rushland	isolated clumps of rushes	isolated rushes	isolated clumps of rushes

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A5. Explanation of Conservation and Declared Plants Codes

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Explanation of Codes for Threatened Ecological Communities (TEC) - DEC

Code	Definition
PD: Presumed Totally Destroyed	An ecological community that has been adequately searched for but for which no representative occurrences have been located. The community has been found to be totally destroyed or so extensively modified throughout its range that no occurrence of it is likely to recover its species composition and/or structure in the foreseeable future. An ecological community will be listed as presumed totally destroyed if there are no recent records of the community being extant
CR: Critically Endangered	An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or that was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated. An ecological community will be listed as *Critically Endangered* when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future.
EN: Endangered	An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or was originally of limited distribution and is in danger of significant modification throughout its range or severe modification or destruction over most of its range in the near future. An ecological community will be listed as *Endangered* when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future.
VU: Vulnerable	An ecological community that has been adequately surveyed and is found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not yet been assured and/or a community that is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range. An ecological community will be listed as *Vulnerable* when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing a high risk of total destruction or significant modification in the medium to long-term future.

Explanation of codes for Priority Ecological Communities (PEC) - DEC

Code	Definition
P1: Priority One	Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.
P2: Priority Two	Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.
P3: Priority Three	(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 within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or; (iii) Communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, and inappropriate fire regimes. Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.
P4: Priority Four	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. (a) *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

Code	Definition
	special protection, but could be if present circumstances change. These communities are usually represented on conservation lands. (b) *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 *Vulnerable*. (c) Ecological communities that have been removed from the list of threatened communities during the past five years.
P5: Priority Five	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.

Definition of Threatened Flora Species Categories under the EPBC Act

Conservation Category	Description
Extinct	A species is extinct if there is no reasonable doubt that the last member of the species has died.
Extinct in the wild	A species is categorized as extinct in the wild if it is only known to survive in cultivation, in captivity or as a naturalized population well outside its past range; or if it has not been recorded in its known/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	The species is facing an extremely high risk of extinction in the wild in the immediate future.
Endangered	The species is likely to become extinct unless the circumstances and factors threatening its abundance, survival or evolutionary development cease to operate; or its numbers have been reduced to such a critical level, or its habitats have been so drastically reduced, that it is in immediate danger of extinction.
Vulnerable	Within the next 25 years, the species is likely to become endangered unless the circumstances and factors threatening its abundance, survival or evolutionary development cease to operate.
Conservation Dependent	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 within a period of 5 years.

Definition of Declared Rare and Priority Flora Categories (Atkins, 2008(2))

Code	Definition
Declared Rare Flora (DRF)	Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such
P1: Priority One	Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P2: Priority Two	Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P3: Priority Three	Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as 'rare flora' but are in need of further survey.
P4: Priority Four	Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years.

Control Codes for Declared Weeds in Western Australia

Priority	Requirements
P1 Prohibits movement	The movement of plants or their seeds is prohibited within the State. This prohibits the movement of contaminated machinery and produce including livestock and fodder.
P2 Aim is to eradicate infestation	Treat all plants to destroy and prevent propagation each year until no plants remain. The infested area must be managed in such a way that prevents the spread of seed or plant parts on or in livestock, fodder, grain, vehicles and/or machinery.
P3 Aims to control infestation by reducing area and/or density of infestation	The infested area must be managed in such a way that prevents the spread of seed or plant parts within and from the property on or in livestock, fodder, grain, vehicles and/or machinery. Treat to destroy and prevent seed set for all plants:- Within 100 metres inside of the boundaries of the infestation. Within 50 metres of roads and high-water mark on waterways. Within 50 metres of sheds, stock yards and houses. Treatment must be done prior to seed set each year. Of the remaining infested area:- Where plant density is 1-10 per hectare treat 100% of infestation. Where plant density is 11-100 per hectare treat 50% of infestation. Where plant density is 101-1000 per hectare treat 10% of infestation. Properties with less than 2 hectares of infestation must treat the entire infestation. Additional areas may be ordered to be treated.
P4 Aims to prevent infestation spreading beyond existing boundaries of infestation	The infested area must be managed in such a way that prevents the spread of seed or plant parts within and from the property on or in livestock, fodder, grain, vehicles and/or machinery. Treat to destroy and prevent seed set all plants:- Within 100 metres inside of the boundaries of the infested property Within 50 metres of roads and high-water mark on waterways Within 50 metres of sheds, stock yards and houses Treatment must be done prior to seed set each year. Properties with less than 2 hectares of infestation must treat the entire infestation. Additional areas may be ordered to be treated. Special considerations In the case of P4 infestations where they continue across property boundaries there is no requirement to treat the relevant part of the property boundaries as long as the boundaries of the infestation as a whole are treated. There must be agreement between neighbours in relation to the treatment of these areas.
P5	Infestations on public lands must be controlled.

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A6 Flora Taxa Recorded During the Marillana Survey

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Family	Species	Phase 1	Phase 2
Acanthaceae	*Dicladanthera forrestii*		•
Adiantaceae	*Cheilanthes sieberi* subsp. *sieberi*	•	
Aizoaceae	*Trianthema pilosa*	•	•
	Trianthema triquetra	•	
Amaranthaceae	****Aerva javanica***	•	•
	Alternanthera nana		•
	Alternanthera nodiflora		•
	Amaranthus mitchellii	•	
	Gomphrena canescens	•	
	Gomphrena canescens subsp. *canescens*	•	
	Gomphrena cunninghamii	•	•
	Ptilotus aervoides	•	•
	Ptilotus astrolasius		•
	Ptilotus astrolasius var. *astrolasius*	•	•
	Ptilotus calostachyus	•	•
	Ptilotus carinatus		•
	Ptilotus exaltatus	•	•
	Ptilotus exaltatus var. *exaltatus*	•	•
	Ptilotus gomphrenoides	•	•
	Ptilotus helipteroides		•
	Ptilotus latifolius		•
	Ptilotus macrocephalus		•
	Ptilotus obovatus var. *obovatus*	•	•
	Ptilotus polystachyus		•
	Ptilotus polystachyus var. *arthrotrichus*	•	
	Ptilotus polystachyus var. *polystachyus*	•	•
Apiaceae	*Trachymene oleracea* subsp. *oleracea*	•	•
Asclepiadaceae	*Rhyncharrhena linearis*		•
Asteraceae	*Pentalepis ?trichodesmoides*	•	
	Blumea tenella	•	
	Calocephalus sp. Pilbara-Desert (M.E. Trudgen 11454)		•
	Calotis porphyroglossa		•
	Centipeda minima subsp. *macrocephala*	•	•
	Pluchea dunlopii		•
	Pterocaulon ?serrulatum	•	
	Pterocaulon sphaeranthoides	•	•
	Streptoglossa bubakii	•	•
	Streptoglossa decurrens	•	•
	Streptoglossa macrocephala	•	•
	Streptoglossa sp.	•	
Boraginaceae	*Ehretia saligna* var. *saligna*	•	
	Heliotropium cunninghamii		•
	Heliotropium ovalifolium	•	•
Boraginaceae	*Heliotropium pachyphyllum*		•
	Heliotropium tenuifolium	•	•

Family	Species	Phase 1	Phase 2
Boraginaceae	*Trichodesma zeylanicum*	•	•
	Trichodesma zeylanicum var. *zeylanicum*	•	•
Brassicaceae	*Lepidium phlebopetalum*		•
Caesalpiniaceae	*Petalostylis cassioides*	•	•
	Petalostylis labicheoides	•	
	Senna artemisioides subsp. *helmsii*	•	•
	Senna artemisioides subsp. *oligophylla*	•	•
	Senna artemisioides subsp. *oligophylla* x ?	•	•
	Senna artemisioides subsp. *oligophylla* x *helmsii*	•	•
	Senna ferraria		•
	Senna glutinosa	•	
	Senna glutinosa subsp. *glutinosa*	•	•
	Senna glutinosa subsp. *pruinosa*		•
	Senna glutinosa subsp. x *luerssenii*	•	•
	Senna notabilis	•	•
Capparaceae	*Capparis lasiantha*		•
	Capparis spinosa	•	•
	Cleome viscosa	•	•
Caryophyllaceae	*Polycarpaea longiflora*	•	•
Chenopodiaceae	*Atriplex* sp.		•
	Chenopodium melanocarpum	•	
	Dysphania rhadinostachya	•	•
	Dysphania rhadinostachya subsp. *inflata*		•
	Dysphania rhadinostachya subsp. *rhadinostachya*		•
	Enchylaena tomentosa var. *tomentosa*	•	•
	Maireana planifolia	•	•
	Maireana villosa	•	•
	Rhagodia eremaea	•	•
	Salsola australis	•	•
	Salsola tragus subsp. *grandiflora*		•
	Sclerolaena cornishiana	•	•
	Sclerolaena costata	•	•
Chloanthaceae	*Dicrastylis cordifolia*	•	•
Convolvulaceae	*Bonamia media* var. *villosa*		•
	Bonamia rosea	•	•
	Convolvulus angustissimus subsp. *angustissimus*		•
	Convolvulus remotus	•	
	Duperreya commixta	•	•
	Evolvulus alsinoides		•
	Evolvulus alsinoides var. *villosicalyx*	•	•
	Ipomoea muelleri	•	•
	Polymeria ambigua		•
Cucurbitaceae	*Cucumis maderaspatanus*	•	•
Cyperaceae	*Cyperus cunninghamii* subsp. *cunninghamii*	•	
Cyperaceae	*Cyperus vaginatus*	•	•
	Fimbristylis simulans		•

Family	Species	Phase 1	Phase 2
Euphorbiaceae	*Euphorbia ?drummondii*	•	
	Euphorbia australis	•	•
	Euphorbia biconvexa		•
	Euphorbia boophthona		•
	Euphorbia coghlanii	•	•
	Euphorbia schultzii	•	•
	Euphorbia tannensis subsp. *eremophila*	•	•
	Leptopus decaisnei		•
	Phyllanthus erwinii	•	•
	Phyllanthus maderaspatensis	•	•
Goodeniaceae	*Goodenia lamprosperma*		•
	Goodenia microptera	•	•
	Goodenia muelleriana	•	
	⚐ ***Goodenia nuda* (P3)**	•	•
	Goodenia sp.		•
	Goodenia stobbsiana	•	•
	Scaevola parvifolia		•
	Scaevola parvifolia subsp. *parvifolia*	•	•
	Scaevola parvifolia subsp. *pilbarae*	•	•
	Scaevola spinescens	•	•
	Velleia connata		•
Haloragaceae	*Haloragis gossei* var. *gossei*	•	•
Loranthaceae	*Amyema fitzgeraldii*	•	•
	Amyema hilliana	•	•
Malvaceae	*Abutilon* aff. *dioicum*		•
	Abutilon cunninghamii	•	
	Abutilon dioicum	•	
	Abutilon fraseri	•	•
	Abutilon lepidum	•	•
	Abutilon leucopetalum	•	
	Abutilon otocarpum	•	•
	Gossypium australe	•	•
	Gossypium robinsonii	•	•
	Hibiscus brachychlaenus	•	•
	Hibiscus coatesii		•
	Hibiscus leptocladus		•
	Hibiscus sturtii var. *campylochlamys*	•	•
	Hibiscus sturtii var. *platychlamys*	•	•
	****Malvastrum americanum***	•	•
	Sida arenicola	•	•
	Sida cardiophylla	•	•
	Sida echinocarpa	•	•
	Sida fibulifera	•	•
	Sida kingii		•
	Sida pilbarensis		•
	Sida platycalyx	•	

Family	Species	Phase 1	Phase 2
Malvaceae	*Sida* sp.	•	
	Sida sp. articulation below (A.A. Mitchell PRP 1605)	•	•
	Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	•	
Mimosaceae	*Acacia* ?*victoriae*		•
	Acacia adsurgens	•	•
	Acacia aff. *aneura* (narrow fine veined; site 1259)		•
	Acacia ancistrocarpa	•	•
	Acacia aneura	•	
	Acacia aneura var. ?*macrocarpa*	•	•
	Acacia aneura var. *aneura*	•	•
	Acacia aneura var. *intermedia*		•
	Acacia aneura var. *microcarpa*	•	•
	Acacia bivenosa	•	•
	Acacia citrinoviridis	•	•
	Acacia coriacea	•	
	Acacia coriacea subsp. *pendens*	•	•
	Acacia dictyophleba	•	•
	Acacia elachantha	•	•
	Acacia hilliana	•	•
	Acacia inaequilatera	•	•
	Acacia ligulata		•
	Acacia maitlandii	•	
	Acacia monticola	•	
	Acacia pachyacra	•	•
	Acacia pachycarpa		•
	Acacia pruinocarpa	•	•
	Acacia pyrifolia		•
	Acacia pyrifolia var. *morrisonii*	•	•
	Acacia pyrifolia var. *pyrifolia*	•	
	Acacia sclerosperma	•	•
	Acacia sclerosperma subsp. *sclerosperma*	•	•
	Acacia sericophylla	•	•
	Acacia spondylophylla	•	•
	Acacia synchronicia	•	•
	Acacia tenuissima	•	•
	Acacia tetragonophylla	•	•
	Acacia trudgeniana	•	•
	Acacia tumida	•	
	Acacia tumida var. ?*tumida*	•	
	Acacia tumida var. *pilbarensis*	•	•
	****Vachellia farnesiana***	•	•
Molluginaceae	*Glinus lotoides*	•	
Molluginaceae	*Mollugo molluginea*	•	•
Myoporaceae	*Eremophila forrestii*	•	
	Eremophila forrestii subsp. *forrestii*	•	•
	Eremophila lanceolata	•	•

Family	Species	Phase 1	Phase 2
Myoporaceae	*Eremophila latrobei* subsp. *filiformis*		•
	Eremophila longifolia	•	•
Myrtaceae	*Corymbia aspera*		•
	Corymbia hamersleyana	•	•
	Eucalyptus camaldulensis var. *obtusa*		•
	Eucalyptus gamophylla	•	•
	Eucalyptus victrix	•	•
	Eucalyptus xerothermica	•	
Nyctaginaceae	*Boerhavia coccinea*	•	•
	Boerhavia gardneri	•	
	Boerhavia repleta	•	•
	Boerhavia sp.	•	•
Papaveraceae	***Argemone ochroleuca* subsp. *ochroleuca***		•
Papilionaceae	*Crotalaria cunninghamii*	•	•
	Crotalaria medicaginea var. *neglecta*	•	
	Cullen lachnostachys	•	•
	Cullen leucanthum	•	•
	Cullen leucochaites	•	•
	Indigofera colutea	•	•
	Indigofera linifolia	•	
	Indigofera linnaei	•	•
	Indigofera monophylla	•	•
	Rhynchosia minima	•	•
	Sesbania cannabina	•	•
	Swainsona formosa	•	•
	Tephrosia arenicola		•
	Tephrosia rosea var. *glabrior*	•	•
	Tephrosia rosea var. *rosea*		•
	Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)	•	•
	Tephrosia supina	•	
	Tephrosia ?*virens*	•	
Poaceae	*Aristida contorta*	•	•
	Aristida holathera	•	
	Aristida holathera var. *holathera*	•	•
	Aristida inaequiglumis	•	•
	Aristida latifolia	•	•
	Aristida sp.		•
	Cenchrus ciliaris	•	•
	Cenchrus setiger	•	•
	Chloris pectinata		•
Poaceae	***Chloris virgata***	•	•
	Chrysopogon fallax	•	•
	Cymbopogon ambiguus		•
	Cymbopogon obtectus	•	
	Cymbopogon procerus		•
	Cymbopogon sp.		•

Family	Species	Phase 1	Phase 2
Poaceae	*Dactyloctenium radulans*	•	
	Dichanthium sericeum subsp. *humilius*	•	•
	Enneapogon caerulescens	•	•
	Enneapogon lindleyanus	•	•
	Enneapogon polyphyllus	•	•
	Enneapogon robustissimus	•	•
	Enteropogon ramosus	•	•
	Eragrostis eriopoda	•	•
	Eragrostis leptocarpa	•	•
	Eragrostis setifolia	•	
	Eragrostis tenellula	•	
	Eragrostis xerophila	•	•
	Eriachne ?*mucronata*	•	
	Eriachne aristidea	•	•
	Eriachne gardneri		•
	Eriachne pulchella	•	
	Eriachne pulchella subsp. *dominii*	•	•
	Eriachne pulchella subsp. *pulchella*		•
	Eulalia aurea	•	•
	Iseilema eremaeum	•	•
	Paraneurachne muelleri	•	•
	Paspalidium basicladum		•
	Perotis rara	•	
	****Setaria verticillata***	•	•
	Sporobolus australasicus	•	•
	Themeda sp. Mt Barricade (M.E. Trudgen 2471)	•	•
	Themeda triandra	•	•
	Triodia basedowii	•	•
	Triodia epactia	•	•
	Triodia lanigera		•
	Triodia pungens		•
	Triodia schinzii	•	•
	Triodia wiseana	•	
	Triraphis mollis	•	•
	Yakirra australiensis	•	
Portulacaceae	*Calandrinia* sp.	•	
	****Portulaca oleracea***	•	•
Proteaceae	*Grevillea wickhamii*		•
	Grevillea wickhamii subsp. *hispidula*	•	•
Proteaceae	*Hakea chordophylla*	•	•
	Hakea lorea subsp. *lorea*	•	•
Rubiaceae	*Austrobryonia pilbarensis*	•	
	Psydrax latifolia	•	•
Santalaceae	*Santalum lanceolatum*	•	•
Sapindaceae	*Atalaya hemiglauca*	•	•
	Dodonaea coriacea	•	•

Family	Species	Phase 1	Phase 2
Scrophulariaceae	*Stemodia grossa*	•	•
	Striga squamigera		•
Solanaceae	****Datura leichhardtii***	•	•
	Nicotiana occidentalis	•	•
	Solanum horridum		•
	Solanum lasiophyllum	•	•
	Solanum phlomoides	•	•
	Solanum sturtianum	•	•
Sterculiaceae	*Waltheria indica*	•	•
Surianaceae	*Stylobasium spathulatum*	•	•
Tiliaceae	*Corchorus crozophorifolius*	•	•
	Corchorus incanus subsp. *lithophilus*		•
	Corchorus laniflorus	•	•
	Corchorus lasiocarpus subsp. ?*parvus*	•	
	Corchorus lasiocarpus subsp. *lasiocarpus*	•	•
	Corchorus parviflorus	•	
	Corchorus sidoides		•
	Corchorus sidoides subsp. *sidoides*		•
	Corchorus sp.	•	
	Corchorus tectus	•	
	Triumfetta maconochieana		•
Violaceae	*Hybanthus aurantiacus*	•	•
Zygophyllaceae	*Tribulus hirsutus*		•
	Tribulus macrocarpus		•
	Tribulus occidentalis	•	
	Tribulus suberosus		•

(Classification and nomenclature according to the Western Australian Herbarium)

ᵽ plus bold font = priority flora taxon,
* plus bold font = introduced species
var. = variation
subsp. = sub species
aff. = affinity

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A7. Priority Flora Locations, Map and Herbarium Voucher Forms

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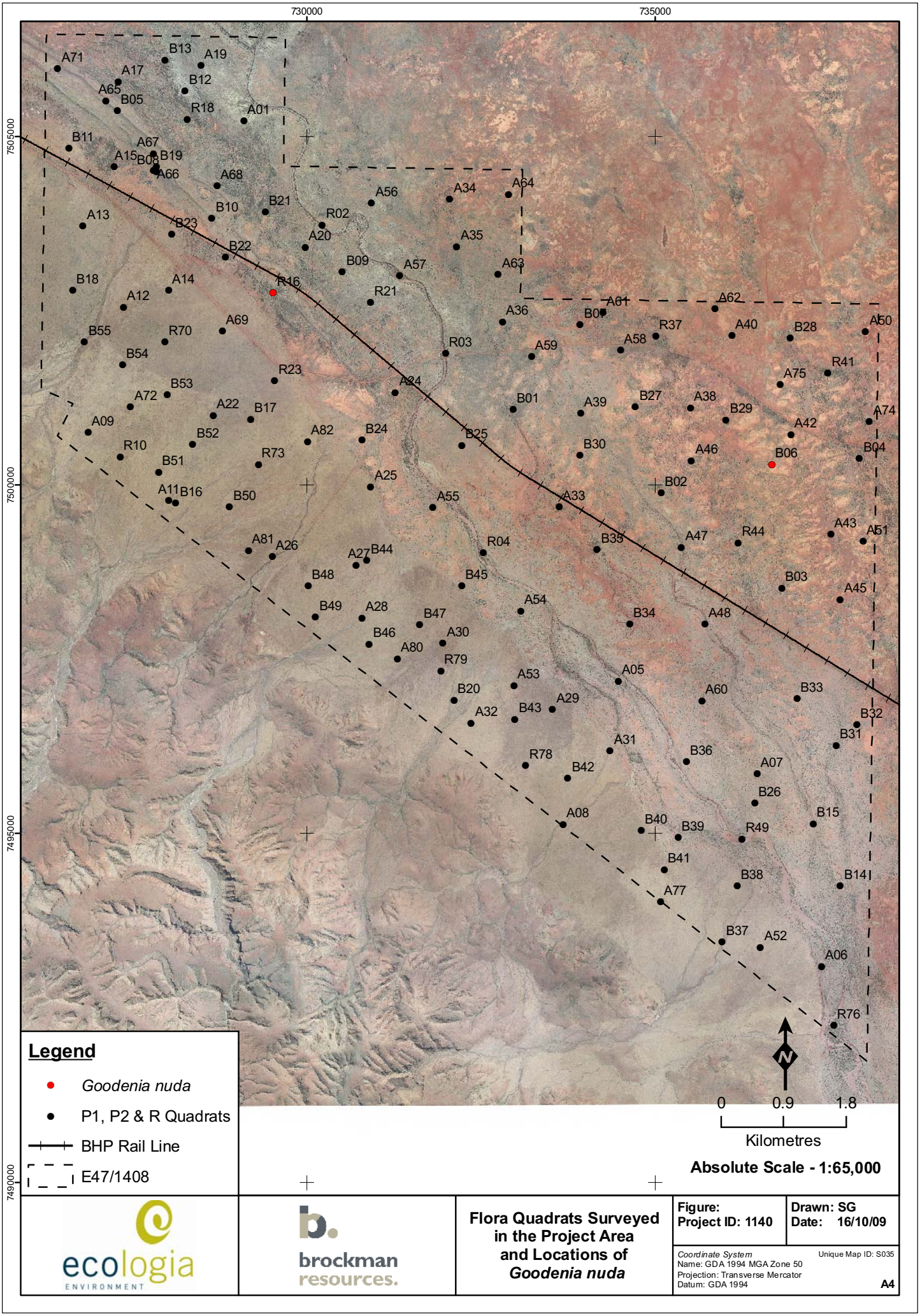
***Goodenia nuda* locations - coordinates.**

Species	Phase	Site	Easting (mE)	Northing (mN)	Cover (%)
Goodenia nuda (Priority 3)	1	A16	729520	7502769	< 2%
	2	B6	736675	7500300	< 2%

(Note: Zone = 50K, Datum = WGS84)


730000
735000
7505000
7500000
7495000
7490000
A71
B13
A19
A17
B12
A65
B05
R18
A01
B11
A67
A15
B08
B19
A66
A68
A56
A34
A64
B10
B21
R02
A13
B23
A20
A35
B22
B09
A57
A63
B18
A14
R16
R21
A12
A61
A62
A36
B07
R37
A40
B28
A50
B55
R70
A69
A58
R03
A59
B54
R41
A75
R23
A24
B53
A72
B01
A39
B27
A38
B29
A74
A22
B17
A09
A42
B52
A82
B24
B25
B30
A46
B04
R10
R73
B06
B51
A25
B02
A11
B16
B50
A55
A33
A43
A51
A81
A26
A27
B44
R04
B35
A47
R44
B48
B45
B03
A45
B49
A28
A54
B47
B34
A48
B46
A30
A80
R79
A53
A05
B20
A60
B33
A29
A32
B43
B32
B31
A31
R78
B36
B42
A07
B26
A08
B40
B39
R49
B15
B41
B38
B14
A77
B37
A52
A06
R76
N
0
0.9
1.8
Kilometres
Absolute Scale - 1:65,000
Legend
Goodenia nuda
P1, P2 & R Quadrats
BHP Rail Line
E47/1408
ecologia
ENVIRONMENT
brockman
resources.
Flora Quadrats Surveyed in the Project Area and Locations of Goodenia nuda
Figure:
Project ID: 1140
Drawn: SG
Date: 16/10/09
Coordinate System
Name: GDA 1994 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA 1994
Unique Map ID: S035
A4

Department of Environment and Conservation

RARE FLORA REPORT FORM

TAXON: *Goodenia nuda* **DEFL POPULATION No.:** _____

DRF ❒ Priority Species: P3 Partial Survey ❒ Full Survey ☑ New Population ❒

FROM: Carmel Winton (CW-938-1) **TITLE**: _____ **SURVEY DATE:** 09 / 06 / 08

REGION: Pilbara Region **DISTRICT:** Fortescue **SHIRE:** East Pilbara

LOCATION: Marillana – Near the Roy Hill Road and BHPBilliton Newman to Port Hedland Rail line intersection. _____

_____ **Reserve No**: _____

ZONE: 50K Easting (mE): 729520 **Northing (mN):** 7502769 **Map Used:** _____

GPS DATUM: AGD84 ❒ GDA94 ❒ GDA94-Compatible (e.g. WGS84) ☒ Unknown ❒ None ❒

LAND STATUS: Nature Reserve ❒ Private ❒ Gravel Res. MRD ❒ Rail Reserve ❒
National Park ❒ Pastoral Lease ☒ Gravel Res. Shire ❒ Rd. Verge Shire ❒
State Forest ❒ UCL ❒ Other Shire Res. ❒ Rd. Verge MRD ❒
Water Reserve ❒ Other ❒ Specify: _____ SLK _____ to _____
Landowner/manager present during inspection: ❒

LANDFORM: Hilltop ❒ Cliff ❒ Slope ❒ Valley ❒ Swamp ❒
Outcrop ❒ Breakaway ❒ Low Plain ❒ Gully ❒ Riverbank ❒
Ridge ❒ Sand Dune ❒ Flat ❒ Drainageline ☒ Lake Edge ❒
Firebreak ❒ Other ❒ Specify: _____

ROCK TYPE: Laterite ❒ Granite ❒ Dolerite ❒ Limestone ❒ Other:____ _____

ROCK FORM: Sheet ❒ Boulder ❒ Fluviatile Gravel ❒ Concretionary Gravel ❒

SOIL TYPE: Sand ☒ Loam ❒ Clay ☒ Peat ❒ Gravel ❒

SOIL COLOUR: Red ☒ Brown ❒ Yellow ❒ White ❒ Grey ❒

SOIL CONDITION: Moist ❒ Inundated ❒ Dry ☒ Saline ❒ Other: _____

VEGETATION CLASSIFICATION (Muir's): *Corymbia hamersleyana*, *Eucalyptus* ?*victrix* and *Acacia aneura* low woodland over *Atalaya hemiglauca* open shrubland over *Austrobryonia pilbarensis* and *Ipomoea muelleri* scattered climbers, **Malvastrum americanum* herbs and **Cenchrus ciliaris* and **Cenchrus setiger* open tussock grassland.

ASSOCIATED SPECIES:_____

_____

_____

No. of PLANTS: Mature: __<10 plants_ Seedlings: _____ Dead**:** _____ Actual ❒Estimate ☒ Area Occupied: _____
(Leave blank if unable to observe, or no attempt made to count plants)

REPRODUCTIVE STATE: Clonal ❒ Flower bud ❒ Flower ☒ Immat. fruit ❒ Fruit ❒ Old Fruit ❒ Vegetative ❒

POLLINATORS: Native bees ❒ Honey bees ❒ Other insects ❒ Birds ❒ Mammals ❒
Other observations: _____

CONDITION OF POPULATION: Healthy ❒ Moderate ❒ Poor ☒ Disturbed ❒ Comment:

_____

_____

_____

POTENTIAL THREATS: Firebreaks ❒ Mining ☒ Recreation ❒ Roadworks ❒ Grazing ☒ Weeds ☒
Salinity ❒ Disease ❒ Prescribed Burning ❒ Other ❒ Comment:_____

FIRE HISTORY: Not known ☒ Burnt in 19____ Summer ❒ Autumn ❒ Winter ❒ Spring ❒

FENCING: Not Required ❒ Fenced ❒ Required ❒ Replace/Repair ❒

ROADSIDE MARKERS: Not Required ☒ Present ❒ Required ❒ Replace ❒ Reposition ❒

OTHER COMMENTS (include action taken/required):_____

_____

VOUCHER SPECIMEN: Regional Herb. ❒ District Herb. ❒ WA Herb. ☒ Other ❒ _____

ATTACHED: Map ❒ Mudmap ❒ Illustration ❒ Photo ❒ Field Notes ❒

COPY SENT TO: Regional Office ❒ District Office ❒ Other ❒ Specify: _____

Signed: Carmel Winton (ecologia Environment) Date: 13th Feb 2009

NOTE: Map or further information may be attached or given on the back of this form.

Please return completed form to Director General, DEC, Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983

RECORDS: PLEASE FORWARD TO ADMINISTRATIVE OFFICER, FLORA, SPECIES AND COMMUNITIES BRANCH

Department of Environment and Conservation

RARE FLORA REPORT FORM

TAXON: *Goodenia nuda* **DEFL POPULATION No.:** _____

DRF ❒ Priority Species: P3 Partial Survey ❒ Full Survey ☑ New Population ❒

FROM: Melissa Hay (MH-938-2) **TITLE:** _____ **SURVEY DATE:** 12 / 09 / 08

REGION: Pilbara Region **DISTRICT:** Fortescue **SHIRE:** East Pilbara

LOCATION: Marillana – Near the Roy Hill Road and BHPBilliton Newman to Port Hedland Rail line intersection. _____

_____ **Reserve No**: _____

ZONE: 50K Easting (mE): 736675 **Northing (mN):** 7500300 **Map Used:** _____

GPS DATUM: AGD84 ❒ GDA94 ❒ GDA94-Compatible (e.g. WGS84) ☒ Unknown ❒ None ❒

LAND STATUS: Nature Reserve ❒ Private ❒ Gravel Res. MRD ❒ Rail Reserve ❒
National Park ❒ Pastoral Lease ☒ Gravel Res. Shire ❒ Rd. Verge Shire ❒
State Forest ❒ UCL ❒ Other Shire Res. ❒ Rd. Verge MRD ❒
Water Reserve ❒ Other ❒ Specify: _____ SLK _____ to _____
Landowner/manager present during inspection: ❒

LANDFORM: Hilltop ❒ Cliff ❒ Slope ❒ Valley ❒ Swamp ❒
Outcrop ❒ Breakaway ❒ Low Plain ❒ Gully ❒ Riverbank ❒
Ridge ❒ Sand Dune ❒ Flat ❒ Drainageline ☒ Lake Edge ❒
Firebreak ❒ Other ❒ Specify: _____

ROCK TYPE: Laterite ❒ Granite ❒ Dolerite ❒ Limestone ❒ Other:____ _____

ROCK FORM: Sheet ❒ Boulder ❒ Fluviatile Gravel ❒ Concretionary Gravel ❒

SOIL TYPE: Sand ☒ Loam ❒ Clay ☒ Peat ❒ Gravel ❒

SOIL COLOUR: Red ☒ Brown ❒ Yellow ❒ White ❒ Grey ❒

SOIL CONDITION: Moist ❒ Inundated ❒ Dry ☒ Saline ❒ Other: _____

VEGETATION CLASSIFICATION (Muir's): *Corymbia hamersleyana*, *Eucalyptus* ?*victrix* and *Acacia aneura* low woodland over *Atalaya hemiglauca* open shrubland over *Austrobryonia pilbarensis* and *Ipomoea muelleri* scattered climbers, **Malvastrum americanum* herbs and **Cenchrus ciliaris* and **Cenchrus setiger* open tussock grassland.

ASSOCIATED SPECIES:_____

_____

_____

No. of PLANTS: Mature: __<10 plants_ Seedlings: _____ Dead: _____ Actual ❒Estimate ☒ Area Occupied: _____
(Leave blank if unable to observe, or no attempt made to count plants)

REPRODUCTIVE STATE: Clonal ❒ Flower bud ❒ Flower ☒ Immat. fruit ❒ Fruit ❒ Old Fruit ❒ Vegetative ❒

POLLINATORS: Native bees ❒ Honey bees ❒ Other insects ❒ Birds ❒ Mammals ❒
Other observations: _____

CONDITION OF POPULATION: Healthy ❒ Moderate ❒ Poor ☒ Disturbed ❒ Comment:

_____

_____

_____

POTENTIAL THREATS: Firebreaks ❒ Mining ☒ Recreation ❒ Roadworks ❒ Grazing ☒ Weeds ☒
Salinity ❒ Disease ❒ Prescribed Burning ❒ Other ❒ Comment:_____

FIRE HISTORY: Not known ☒ Burnt in 19____ Summer ❒ Autumn ❒ Winter ❒ Spring ❒

FENCING: Not Required ❒ Fenced ❒ Required ❒ Replace/Repair ❒

ROADSIDE MARKERS: Not Required ☒ Present ❒ Required ❒ Replace ❒ Reposition ❒

OTHER COMMENTS (include action taken/required):_____

_____

VOUCHER SPECIMEN: Regional Herb. ❒ District Herb. ❒ WA Herb. ☒ Other ❒ _____

ATTACHED: Map ❒ Mudmap ❒ Illustration ❒ Photo ❒ Field Notes ❒

COPY SENT TO: Regional Office ❒ District Office ❒ Other ❒ Specify: _____

Signed: Melissa Hay (ecologia Environment) (MH-938-02) Date: 23rd March 2009

NOTE: Map or further information may be attached or given on the back of this form.

Please return completed form to Director General, DEC, Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983

RECORDS: PLEASE FORWARD TO ADMINISTRATIVE OFFICER, FLORA, SPECIES AND COMMUNITIES BRANCH

A8. Introduced Flora Locations, Descriptions and Photographs

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Locations of introduced flora species recorded at the Marillana survey area.

Species	Phase	Site	Easting (mE)	Northing (mN)	No. plants / cover (%)
**Aerva javanica*	1	A6	737392	7493100	< 2%
		A24	731273	7501331	< 2%
		A47	735382	7499112	< 10 plants
		A49	736254	7494928	< 2%
		A76	737567	7492245	< 10 plants
	2	R76	737583	7492257	< 10 plants
**Argemone ochroleuca* subsp. *ochroleuca*	2	Opp coll	732476	7498939	< 10 plants
**Cenchrus ciliaris*	1	A1	729103	7505239	> 70%
		A2	730229	7503733	10 – 30%
		A3	731995	7501900	30 – 70%
		A4	732537	7499035	2 – 10%
		A5	734476	7497191	> 70%
		A6	737392	7493100	10 – 30%
		A7	736467	7495866	30 – 70%
		A8	733679	7495141	10 – 30%
		A9	726866	7500762	2 – 10%
		A11	728027	7499782	2 – 10%
		A15	727243	7504575	30 – 70%
		A16	729520	7502769	10 – 30%
		A17	727296	7505798	> 70%
		A18	728288	7505261	30 – 70%
		A19	728482	7506031	30 – 70%
		A20	729978	7503418	> 70%
		A21	730919	7502630	30 – 70%
		A22	728662	7501007	10 – 30%
		A24	731273	7501331	10 – 30%
		A26	729505	7498978	2 – 10%
		A27	730709	7498860	< 2%
		A28	730799	7498102	10 – 30%
		A29	733534	7496787	< 2%
		A30	731957	7497731	2 – 10%
		A31	734360	7496195	10 – 30%
		A33	733629	7499695	10 – 30%
		A34	732055	7504106	30 – 70%
		A35	732154	7503431	10 – 30%
		A36	732809	7502352	30 – 70%
		A38	735509	7501121	10 – 30%
		A39	733933	7501040	30 – 70%
		A40	736101	7502151	10 – 30%
		A41	737484	7501609	2 – 10%
		A42	736954	7500731	< 2%
		A43	737524	7499296	< 2%
		A44	736198	7499181	10 – 30%
		A45	737663	7498365	2 – 10%
		A46	735525	7500355	10 – 30%
		A47	735382	7499112	30 – 70%
	1	A48	735721	7498007	30 – 70%
		A49	736254	7494928	2 – 10%

Species	Phase	Site	Easting (mE)	Northing (mN)	No. plants / cover (%)
*Cenchrus ciliaris	1	A50	738027	7502211	< 2%
		A51	737986	7499203	10 – 30%
		A52	736517	7493377	2 – 10%
		A53	732979	7497129	2 – 10%
		A54	733079	7498193	10 – 30%
		A55	731815	7499681	30 – 70%
		A56	730932	7504055	> 70%
		A57	731339	7503007	10 – 30%
		A58	734504	7501947	30 – 70%
		A59	733233	7501852	2 – 10%
		A60	735673	7496904	30 – 70%
		A61	734251	7502478	< 2%
		A62	735861	7502541	2 – 10%
		A63	732751	7503031	> 70%
		A64	732900	7504177	< 2%
		A65	727115	7505519	30 – 70%
		A66	727800	7504520	2 – 10%
		A68	728714	7504301	30 – 70%
		A71	726429	7505985	10 – 30%
		A73	729307	7500306	2 – 10%
		A74	738080	7500914	10 – 30%
		A75	736797	7501445	< 2%
		A76	737567	7492245	30 – 70%
		A77	735081	7494023	< 10 plants
		A82	730014	7500634	2 – 10%
	2	B1	732964	7501099	10 – 30%
		B2	735088	7499895	2 – 10%
		B4	737938	7500388	30 – 70%
		B5	727283	7505373	2 – 10%
		B6	736675	7500300	< 2%
		B7	733929	7502307	30 – 70%
		B8	727845	7504512	< 2%
		B9	730515	7503067	10 – 30%
		B9	730515	7503067	10 – 30%
		B10	728643	7503839	2 – 10%
		B11	726586	7504841	< 2%
		B12	728257	7505664	10 – 30%
		B13	727969	7506100	30 – 70%
		B14	737663	7494254	10 – 30%
		B15	737270	7495145	10 – 30%
		B16	728124	7499745	2 – 10%
		B17	729201	7500954	2 – 10%
		B19	727842	7504573	2 – 10%
		B20	732120	7496923	10 – 30%
		B21	729405	7503923	30 – 70%
		B22	728836	7503277	10 – 30%
		B23	728065	7503607	< 2%
		B24	730798	7500650	10 – 30%
		B25	732230	7500574	30 – 70%
		B26	736436	7495448	30 – 70%

Species	Phase	Site	Easting (mE)	Northing (mN)	No. plants / cover (%)
**Cenchrus ciliaris*	2	B27	734723	7501124	30 – 70%
		B28	736948	7502119	10 – 30%
		B30	733927	7500428	30 – 70%
		B31	737599	7496274	30 – 70%
		B32	737897	7496570	10 – 30%
		B33	737039	7496940	30 – 70%
		B34	734638	7498014	30 – 70%
		B35	734172	7499082	30 – 70%
		B36	735456	7496041	30 – 70%
		B37	735965	7493452	2 – 10%
		B38	736183	7494253	2 – 10%
		B39	735331	7494950	10 – 30%
		B41	735133	7494482	2 – 10%
		B43	732991	7496640	< 10 plants
		B44	730868	7498927	30 – 70%
		B45	732224	7498565	30 – 70%
		B47	731626	7498002	< 2%
		B49	730129	7498107	2 – 10%
		B50	728896	7499695	< 10 plants
		B52	728369	7500588	2 – 10%
		B53	728000	7501299	< 2%
		B55	726814	7502060	2 – 10%
		R2	730180	7503835	30 – 70%
		R3	731987	7501882	30 – 70%
		R4	732536	7499029	30 – 70%
		R16	729520	7502757	2 – 10%
		R18	728291	7505260	10 – 30%
		R21	730907	7502660	> 70%
		R37	735013	7502158	10 – 30%
		R44	736203	7499152	10 – 30%
		R49	736203	7499152	< 2%
		R76	737583	7492257	30 – 70%
		Opp coll	735515	7495337	< 2%
		Opp coll	733194	7497146	< 2%
		Opp coll	727393	7503233	< 2%
		Opp coll	733065	7497555	10 – 30%
		Opp coll	730573	7502335	10 – 30%
		Opp coll	732073	7497261	30 – 70%
**Cenchrus setiger*	1	A1	729103	7505239	2 – 10%
		A2	730229	7503733	> 70%
		A4	732537	7499035	< 10 plants
		A5	734476	7497191	> 70%
		A6	737392	7493100	2 – 10%
		A7	736467	7495866	30 – 70%
		A8	733679	7495141	< 10 plants
		A16	729520	7502769	10 – 30%
		A18	728288	7505261	30 – 70%
		A19	728482	7506031	30 – 70%
		A20	729978	7503418	10 – 30%
		A22	728662	7501007	< 2%

Species	Phase	Site	Easting (mE)	Northing (mN)	No. plants / cover (%)
**Cenchrus setiger*	1	A24	731273	7501331	10 – 30%
		A26	729505	7498978	2 – 10%
		A28	730799	7498102	2 – 10%
		A31	734360	7496195	< 2%
		A33	733629	7499695	10 – 30%
		A35	732154	7503431	2 – 10%
		A37	735010	7502135	2 – 10%
		A38	735509	7501121	2 – 10%
		A39	733933	7501040	30 – 70%
		A40	736101	7502151	10 – 30%
		A44	736198	7499181	< 10 plants
		A46	735525	7500355	< 2%
		A47	735382	7499112	2 – 10%
		A48	735721	7498007	30 – 70%
		A49	736254	7494928	< 10 plants
		A52	736517	7493377	< 10 plants
		A54	733079	7498193	30 – 70%
		A55	731815	7499681	2 – 10%
		A56	730932	7504055	30 – 70%
		A57	731339	7503007	10 – 30%
		A60	735673	7496904	30 – 70%
		A68	728714	7504301	10 – 30%
		A76	737567	7492245	30 – 70%
	2	B1	732964	7501099	10 – 30%
		B2	735088	7499895	2 – 10%
		B6	736675	7500300	< 10 plants
		B10	728643	7503839	2 – 10%
		B12	728257	7505664	10 – 30%
		B15	737270	7495145	10 – 30%
		B22	728836	7503277	10 – 30%
		B24	730798	7500650	10 – 30%
		B25	732230	7500574	2 – 10%
		B26	736436	7495448	10 – 30%
		B31	737599	7496274	30 – 70%
		B32	737897	7496570	< 2%
		B33	737039	7496940	10 – 30%
		B35	734172	7499082	10 – 30%
		B36	735456	7496041	30 – 70%
		B38	736183	7494253	< 2%
		B39	735331	7494950	10 – 30%
		B45	732224	7498565	2 – 10%
		R2	730180	7503835	30 – 70%
		R3	731987	7501882	< 2%
		R4	732536	7499029	< 2%
		R16	729520	7502757	2 – 10%
		R18	728291	7505260	10 – 30%
		R21	730907	7502660	< 2%
		R37	735013	7502158	< 10 plants
		R49	736203	7499152	< 2%
		R76	737583	7492257	< 2%

Species	Phase	Site	Easting (mE)	Northing (mN)	No. plants / cover (%)
*Cenchrus setiger	2	Opp coll	735515	7495337	< 2%
		Opp coll	727393	7503233	< 2%
*Chloris virgata	1	A41	737484	7501609	2 – 10%
	2	R41	737481	7501609	< 2%
*Datura leichhardtii	1	A16	729520	7502769	< 10 plants
		Opp coll	734534	7496331	< 10 plants
	2	R16	729520	7502757	< 2%
*Malvastrum americanum	1	A2	730229	7503733	< 10 plants
		A16	729520	7502769	30 – 70%
		A24	731273	7501331	< 2%
		A37	735010	7502135	< 2%
		A40	736101	7502151	2 – 10%
		A41	737484	7501609	2 – 10%
		A46	735525	7500355	< 2%
		A51	737986	7499203	2 – 10%
		A58	734504	7501947	< 2%
		A74	738080	7500914	< 2%
	2	B1	732964	7501099	2 – 10%
		B3	736818	7498525	< 10 plants
		B4	737938	7500388	< 10 plants
		B12	728257	7505664	< 10 plants
		B15	737270	7495145	2 – 10%
		B32	737897	7496570	< 10 plants
		B33	737039	7496940	< 10 plants
		B35	734172	7499082	< 2%
		R2	730180	7503835	< 2%
		R16	729520	7502757	10 – 30%
		R18	728291	7505260	< 2%
		R37	735013	7502158	< 2%
		R41	737481	7501609	< 2%
		Opp coll	734266	7498996	< 2%
		Opp coll	730573	7502335	2 – 10%
		Opp coll	732476	7498939	2 – 10%
		Opp coll	734601	7498387	2 – 10%
		Opp coll	732969	7500212	< 10 plants
		Opp coll	732989	7500198	< 10 plants
*Portulaca oleracea	1	A9	726866	7500762	< 2%
		A11	728027	7499782	< 10 plants
		A17	727296	7505798	< 10 plants
		A38	735509	7501121	< 2%
		A40	736101	7502151	< 2%
		A41	737484	7501609	< 2%
		A42	736954	7500731	< 10 plants
		A44	736198	7499181	< 2%
		A45	737663	7498365	< 10 plants
		A50	738027	7502211	< 10 plants
		A58	734504	7501947	< 2%
		A59	733233	7501852	< 10 plants
		A61	734251	7502478	< 10 plants
		A74	738080	7500914	< 10 plants

Species	Phase	Site	Easting (mE)	Northing (mN)	No. plants / cover (%)
**Portulaca oleracea*	1	A75	736797	7501445	< 2%
	2	B11	726586	7504841	< 2%
		B23	728065	7503607	< 2%
		R41	737481	7501609	< 10 plants
**Setaria verticillata*	1	A2	730229	7503733	< 2%
	2	R2	730180	7503835	< 2%
**Vachellia farnesiana*	1	A1	729103	7505239	< 10 plants
		A15	727243	7504575	< 2%
		A18	728288	7505261	< 2%
		A19	728482	7506031	< 2%
		A20	729978	7503418	< 10 plants
		A21	730919	7502630	< 2%
		A35	732154	7503431	< 10 plants
		A37	735010	7502135	< 2%
		A40	736101	7502151	< 2%
		A46	735525	7500355	< 10 plants
		A58	734504	7501947	< 2%
		A59	733233	7501852	< 10 plants
		A62	735861	7502541	< 2%
		A63	732751	7503031	< 10 plants
		A64	732900	7504177	< 10 plants
	2	B6	736675	7500300	< 10 plants
		B7	733929	7502307	< 2%
		B12	728257	7505664	< 2%
		B13	727969	7506100	< 2%
		B27	734723	7501124	< 10 plants
		R18	728291	7505260	< 2%
		R21	730907	7502660	< 10 plants
		R37	735013	7502158	< 10 plants
		Opp coll	730573	7502335	< 2%
		Opp coll	727181	7507231	2 – 10%
		Opp coll	732969	7500212	2 – 10%
		Opp coll	727483	7506860	10 – 30%

(Note: Zone = 50K, Datum = WGS84, Opp coll = opportunist collection)

***Aerva javanica* (Kapok Bush), Amaranthaceae,** is an erect, many-branched perennial herb, growing to 1.6 m in height. **Aerva javanica* is densely covered in short, branched hairs, giving it a greyish appearance. Its flowers are white and are produced for most of the year (FloraBase, 2009). Native to northern Africa and south west Asia, **Aerva javanica* was originally introduced to Western Australia to assist with the re-vegetation of degraded rangelands, it is now widespread in many types of vegetation from Carnarvon to the Kimberley (Hussey *et al.,* 2007).

***Argemone ochroleuca subsp. ochroleuca* (Mexican Poppy), Papaveraceae,** is an annual, herb, 0.3 – 1 m high, with very spiny leaves that produce a yellow latex substance when broken. Its flowers are white, cream and yellow, and are produced from February to March and July to November (FloraBase, 2009). Native to America *Argemone ochroleuca* subsp. *ochroleuca* is now widespread in coarse sand banks and cobble river beds in arid Western Australia as well as pastures in parts of the Avon Valley, and on wasteland in the south-west (Hussey *et al.* 2007).

***Cenchrus ciliaris* (Buffel Grass), Poaceae,** is a tufted, perennial grass growing to 1 m high with purplish flowers produced for much of the year (FloraBase, 2009). Native to Africa and India, **Cenchrus ciliaris* has been widely planted in pastoral regions of Western Australia for cattle fodder and has now become a widespread weed along roadsides, creeklines and river edges, and occurs in most vegetation types from Geraldton to the Pilbara (Hussey *et al.,* 2007).

***Cenchrus setiger* (Birdwood Grass), Poaceae,** is an erect, tussocky, perennial, grass-like herb, growing to 0.5 m high, with a compact, green spike-like inflorescence occurring from May to April (FloraBase, 2009). Native to Africa and India, it was introduced to Australia as a fodder plant in pastoral regions and has now become a serious weed of watercourses from Geraldton to the Kimberley (Hussey *et al.,* 2007).

***Chloris virgata* (Feathertop Rhodes Grass / Windmill Grass), Poaceae,** is a tufted annual, grass-like herb growing 0.23 to 0.45 m high; it occurs on clay and sand (FloraBase, 2009). Green-purple flowers are produced in autumn and winter; the inflorescence is shorter, softer and less widely branched than other *Chloris* species. Native to tropical Africa, this species is found on disturbed sites, such as roadsides, throughout the Kimberley, Pilbara, Gascoyne and South West regions of Western Australia (Hussey *et al.,* 2007). Photograph not available.

***Datura leichhardtii* (Native Thornapple / Leichhardt's Thornapple), Solanaceae,** is a stout, annual herb growing 0.2 to 1 m high (FloraBase, 2009). It has ovate, lobed leaves and white flowers are produced from June to October. Native to Mexico, this species grows on alluvium and is often found along creeklines in the Pilbara and Gascoyne (Hussey *et al.,* 2007). Photograph not available.

***Malvastrum americanum* (Spiked Malvastrum)**, **Malvaceae**, is an erect, hairy, perennial herb or shrub growing to between 0.5 and 1.3 m in height (FloraBase, 2009). Native to tropical America, this species is a weed of river and creek margins, wastelands, and many arid zone habitats from the Kimberley to the Pilbara and Gascoyne regions of Western Australia (Hussey *et al.,* 2007).

***Portulaca oleracea* (Pigweed / Purslane), Portulacaceae,** is a succulent, prostrate to decumbent annual herb, growing to 0.2 m high; under water stress this plant becomes reddish. Flowers are yellow and occur from April to May (FloraBase, 2009). Commonly found on clay loams, sand and often disturbed sites, **Portulaca oleracea* is a widespread weed of horticulture, paddocks and gardens, it is considered a native in most of Western Australia, but is probably introduced to the South-West (Hussey *et al.,* 2007).

***Setaria verticillata* (Whorled Pigeon Grass), Poaceae,** is a loosely tufted annual, grass-like herb growing to 0.1 to 1.3 m in height. Its flowers are produced from December to June and form dense, cylindrical panicles (FloraBase, 2009). It is a common widespread weed of disturbed land, riverine edges and shrublands from the Kimberley to the Pilbara; often found on sand, clay and loam (Hussey *et al.,* 2007). Photograph not available.

***Vachellia farnesiana* (Mimosa Bush), Mimosaceae,** is an erect, spreading, thicket-forming, thorny tree or shrub growing to 4 m in height and has dark grey, rough bark. The leaves of **Vachellia farnesiana* are pinnate and it produces yellow flowers from June to August (FloraBase, 2009). **Vachellia farnesiana* is common in low-lying areas, creek banks and disturbed sites. A South American species, it is now widely distributed throughout Western Australia (Hussey *et al.,* 2007).

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