

Conservation Significant Vegetation Photographs

Banksia Woodlands of the Swan Coastal Plain TEC



Melaleuca huegelii - *Melaleuca systema* shrublands on limestone ridges TEC



Banksia dominated woodlands of the Swan Coastal Plain IBRA region PEC

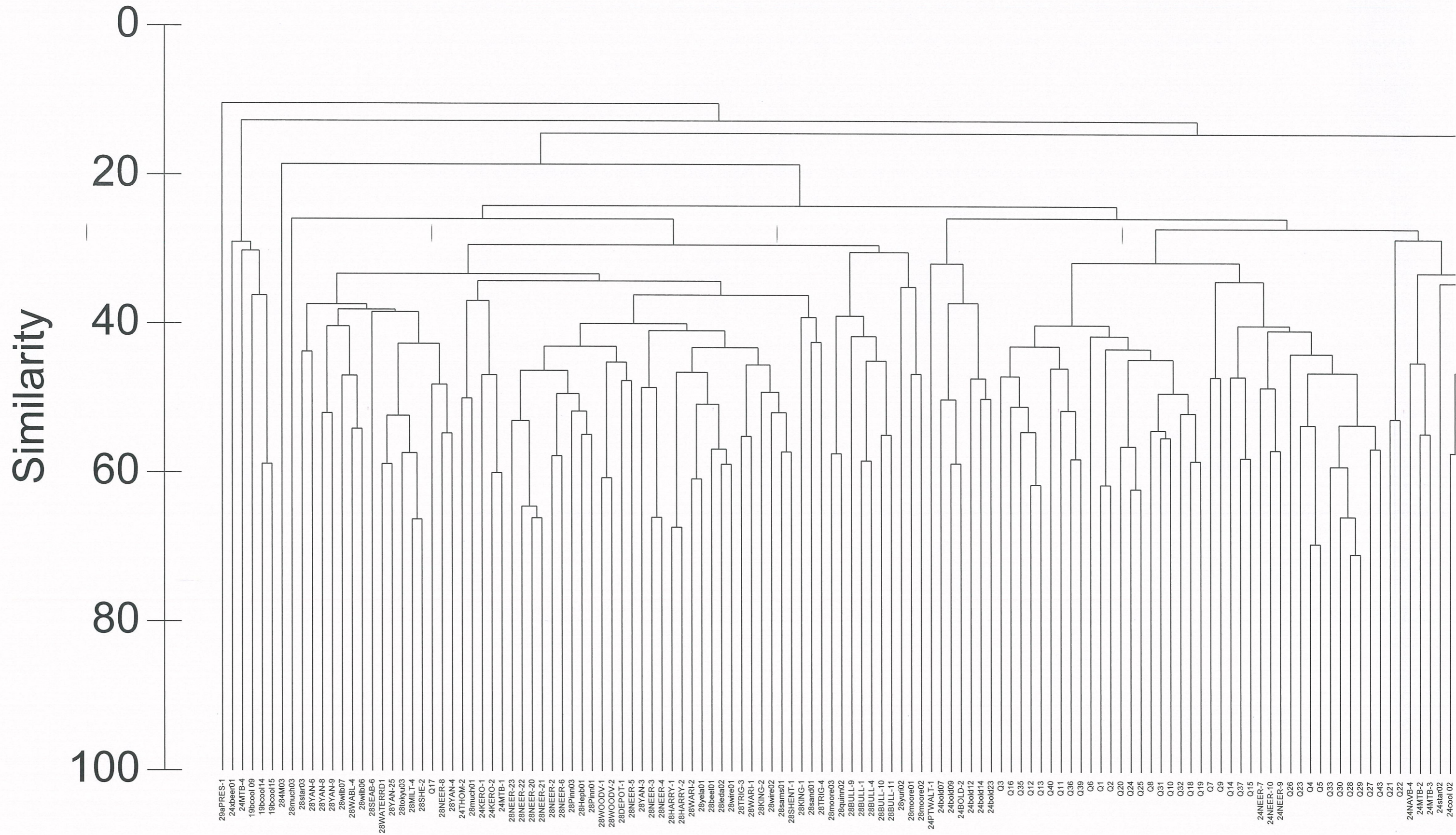


Northern Spearwood shrublands and woodlands PEC



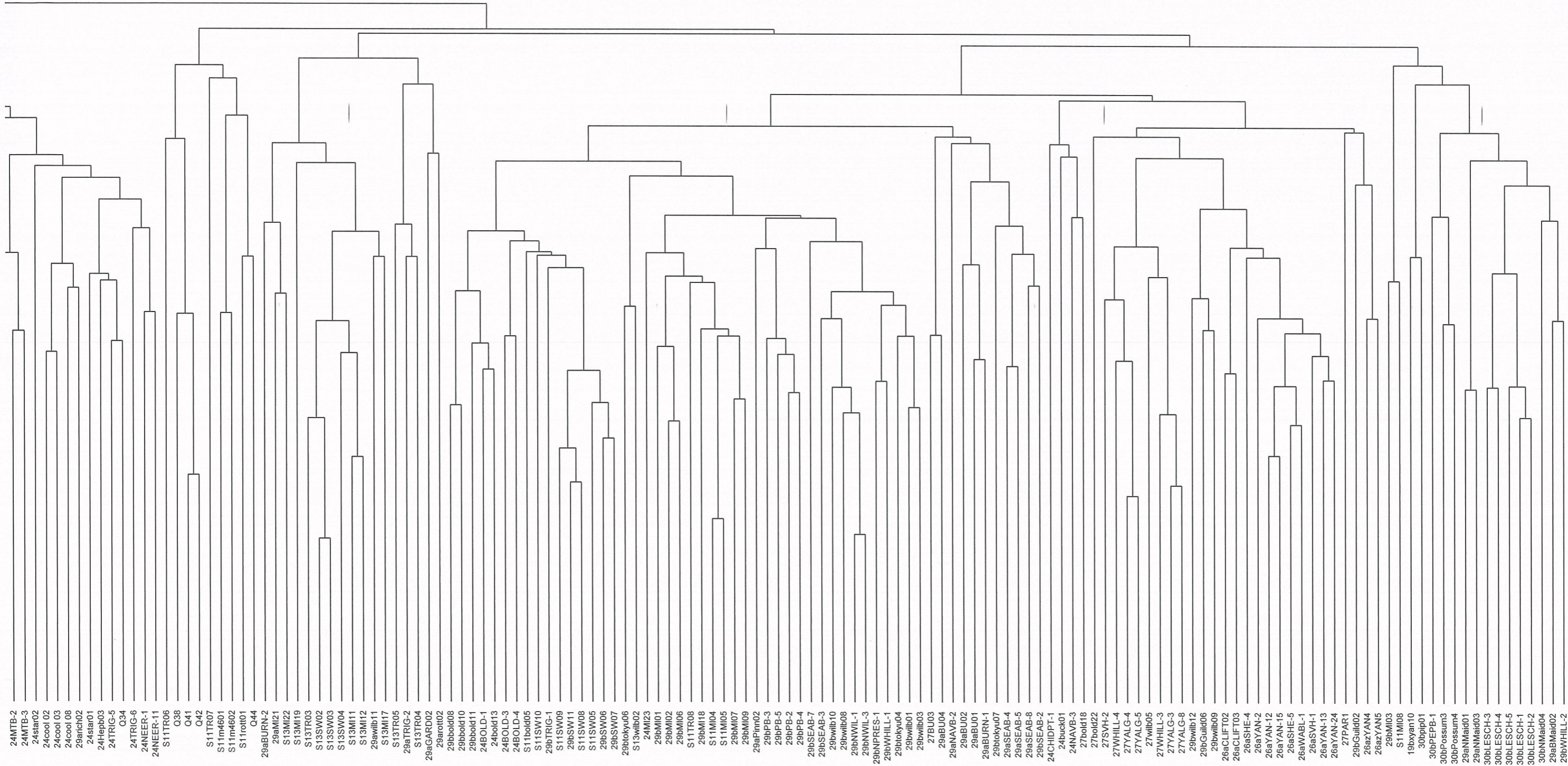
Tuart (*Eucalyptus gomphocephala*) woodlands of the Swan Coastal Plain





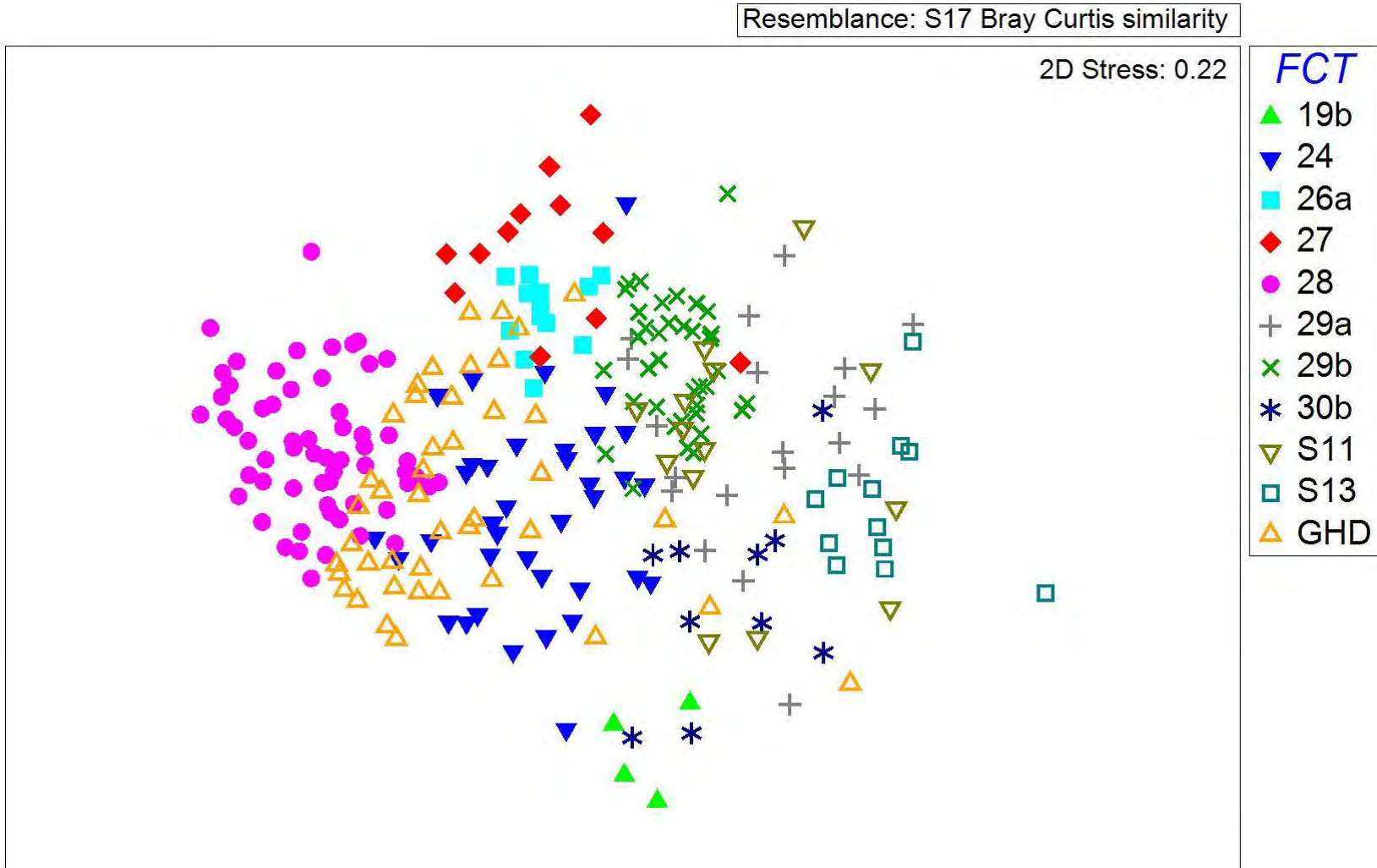
SWA dataset

Resemblance: S17 Bray Curtis similarity

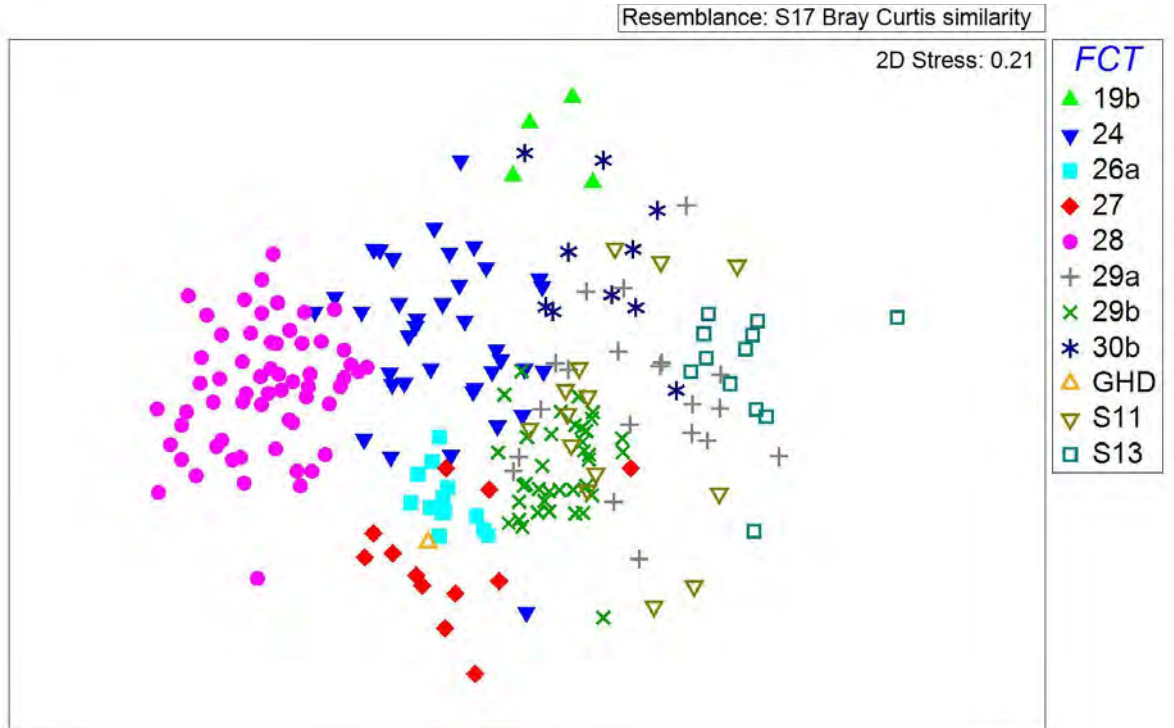


Quadrats

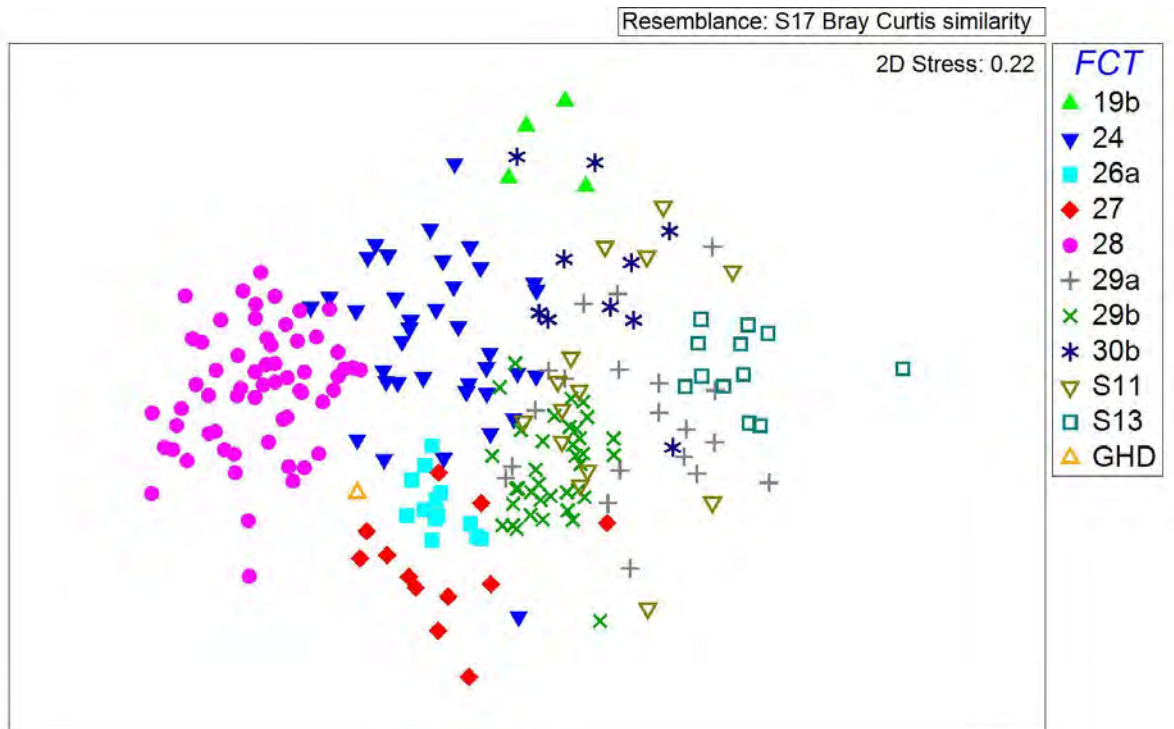
FCT analysis MDS



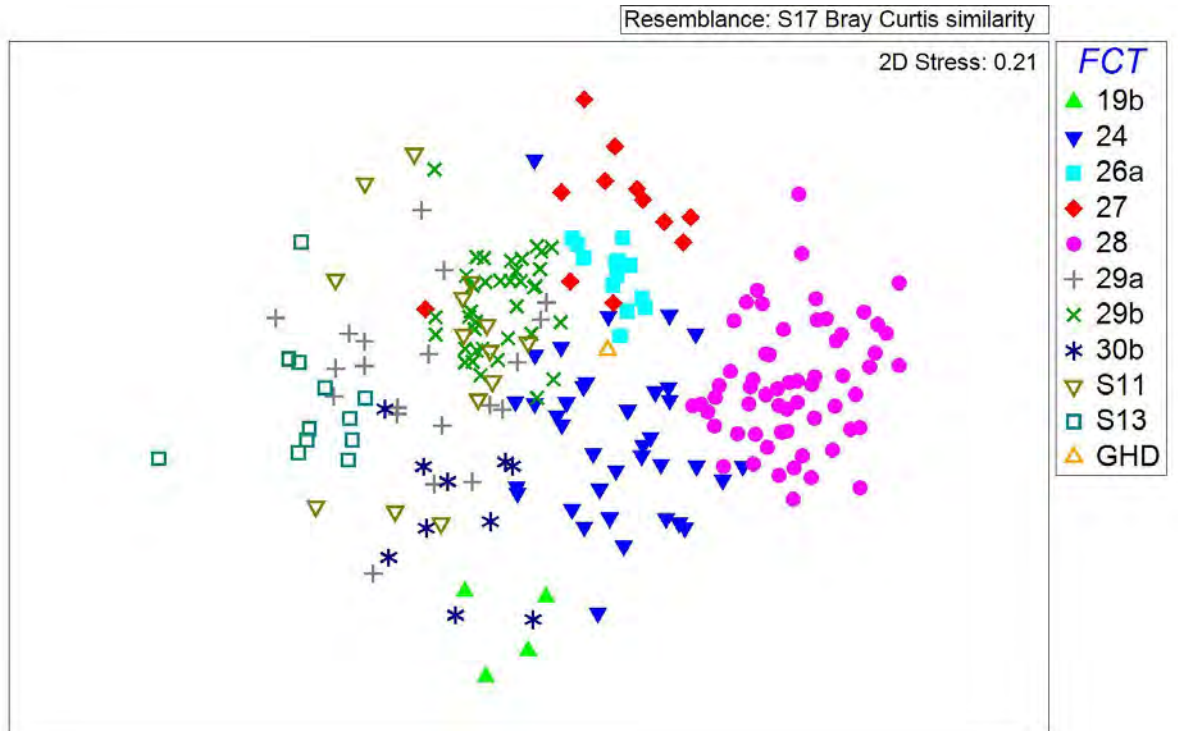
SSI analysis Q27



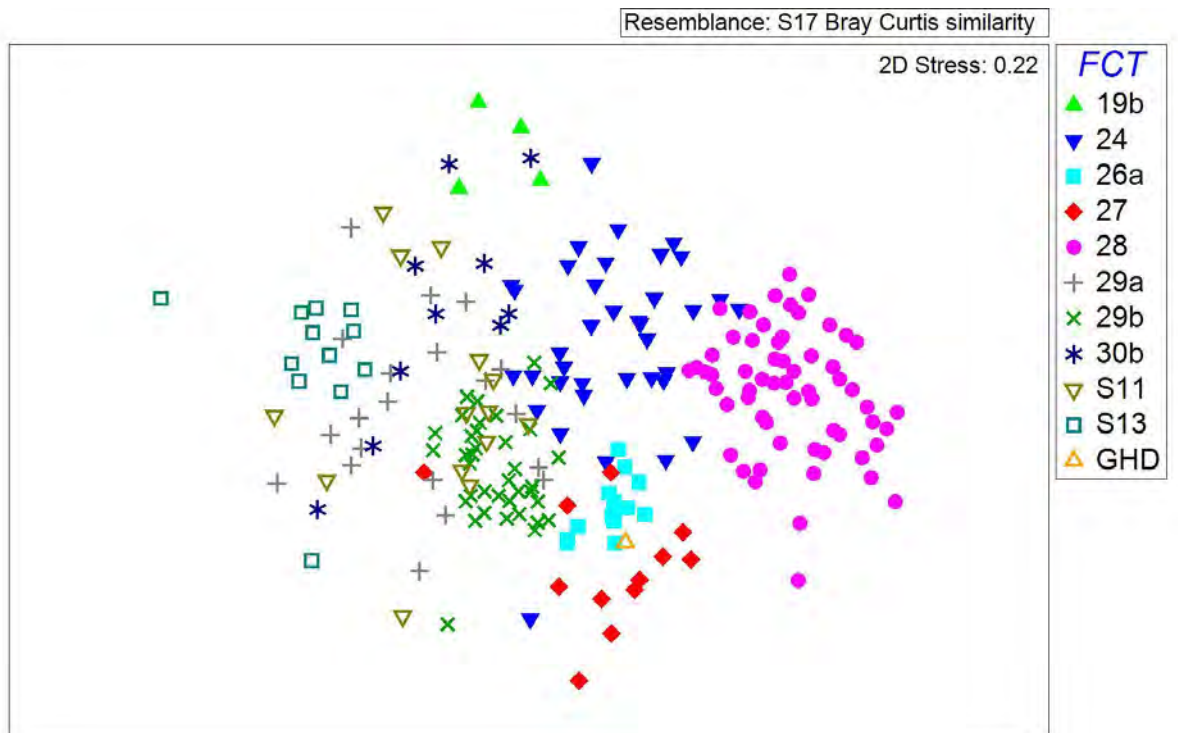
SSI analysis Q23



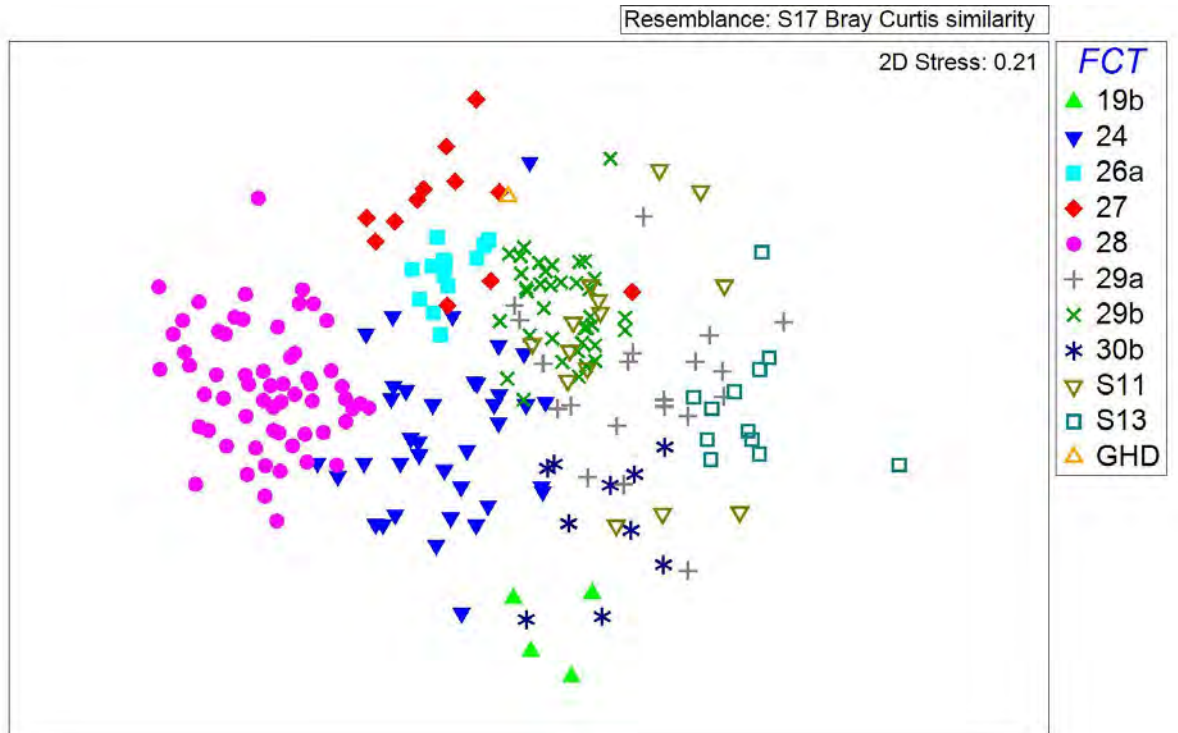
SSI analysis Q37



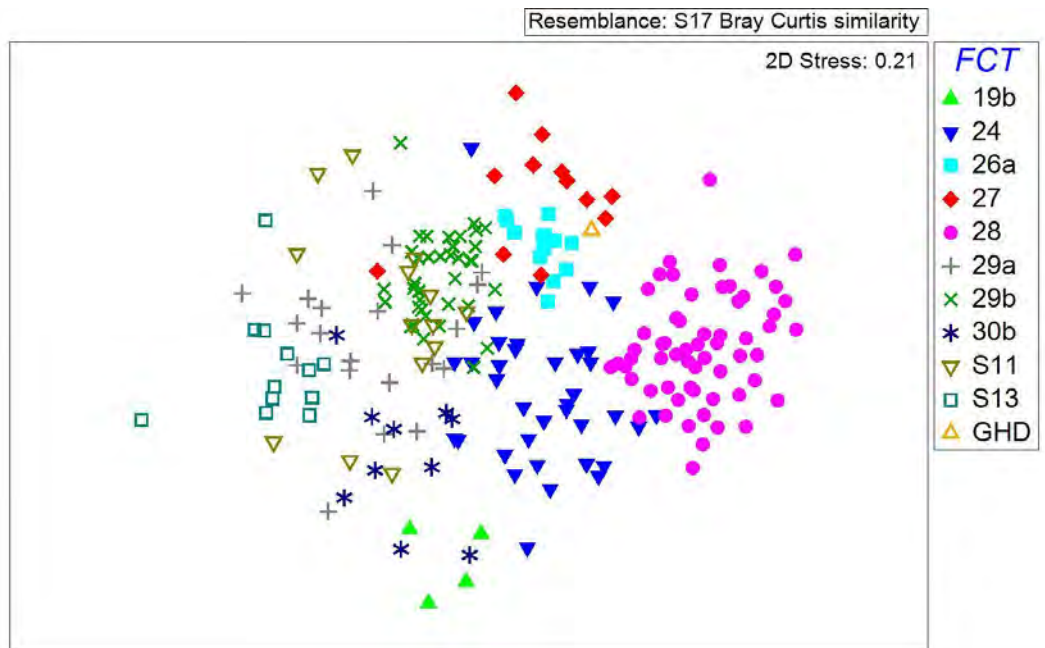
SSI analysis Q9



SSI analysis Q14



SSI analysis Q26



Flora likelihood of occurrence assessment of conservation significant flora identified in the desktop assessment as potentially occurring within the study area.

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
<i>Acacia benthamii</i>		P2		x			Shrub, ca 1 m high. Flowers yellow in August to September. Occurs in sand, typically on limestone breakaways.	Known – species recorded within the survey area.	Known – species recorded within the extended survey area.
<i>Andersonia gracilis</i>	Slender Andersonia	VU	EN			x	Slender erect or open straggly shrub, 0.1-0.5(-1) m high. Flowers white-pink-purple from September to November. Occurs in white/grey sand, sandy clay, gravelly loam in winter-wet areas, near swamps.	Highly Unlikely – the closest known record is over 50 km north of the survey area. Survey area does not contain optimal habitat for this species.	Highly Unlikely
<i>Anigozanthos viridis</i> subsp. <i>terraspectans</i>	Dwarf Green kangaroo Paw	VU	VU			x	Rhizomatous, perennial, herb, 0.05-0.85 m high. Flowers green/yellow-green, August to October. Occurs in sand, loam, clay in winter-wet areas.	Highly Unlikely - the closest known record is over 50 km north of the survey area. Survey area does not contain optimal habitat for this species.	Highly Unlikely

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
<i>Baeckea</i> sp. Limestone (N. Gibson & M.N, Lyons 1425)		P1		x	x		Compact shrub 1.2 (1.6) high. Flowers pink, pale-pink to white (potentially September-December). Grey sand, yellow sand with limestone outcropping. On hills.	Known – species recorded within the survey area.	Known – species recorded within the extended survey area.
<i>Calectasia cyanea</i>	Blue Tinsel Lily	CR	CR	x			Rhizomatous, clump forming, woody perennial, herb, 0.1-0.6 m high, to 0.3 m wide. Flowers blue/purple, June to October. Occurs in white, grey or yellow sand, gravel.	Highly Unlikely – Only known from a location 10 km south of Albany with records elsewhere considered to be incorrectly identified.	Highly Unlikely
<i>Conostylis bracteata</i>		P3		x	x		Rhizomatous, tufted or shortly proliferous perennial, grass-like or herb, 0.2-0.45 m high. Flowers yellow, August to September. Occurs in sand, limestone on consolidated sand dunes.	Possible – suitable habitat was found within the survey area.	Possible – suitable habitat present.

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
<i>Conostylis pauciflora</i> subsp. <i>euryrhipis</i>		P4		x	x		Rhizomatous, stoloniferous perennial, grass-like or herb, 0.06-0.18 m high. Flowers yellow August to October. White, grey or yellow sand on consolidated dunes.	Possible – suitable habitat was found within the survey area.	Possible – suitable habitat present.
<i>Diuris micrantha</i>	Dwarf Bee-orchid	VU	VU			x	Tuberous, perennial, herb, 0.3-0.6 m high. Flowers yellow and brown in September to October. Occurs in brown loamy clay in winter-wet swamps, in shallow water.	Highly Unlikely – The closest record on the Swan Coastal Plain is over 50 km south of the survey area. The survey area does not contain optimal habitat.	Highly Unlikely
<i>Diuris purdiei</i>	Purdie's Donkey-orchid	EN	EN			x	Tuberous, perennial, herb, 0.15-0.35 m high. Flowers yellow in September to October. Occurs in grey-black sand, moist. Winter-wet swamps.	Highly Unlikely – The nearest record on the Swan Coastal Plain is over 50 km south of the survey area. The survey area does not contain optimal habitat.	Highly Unlikely
<i>Drakaea elastica</i>	Glossy-leafed Hammer Orchid	CR	EN			x	Tuberous, perennial, herb, 0.12-0.3 m high. Flowers red and green and yellow in October to November. Occurs white or grey sand.	Highly Unlikely - The nearest record on the Swan Coastal Plain is over 25 km north of the survey area. The survey area	Highly Unlikely

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
							Low-lying situations adjoining winter-wet swamps.	does not contain optimal habitat.	
<i>Drakaea micrantha</i>	Dwarf hammer-orchid	EN	VU			x	Tuberous, perennial, herb, 0.15-0.3 m high. Flowers red and yellow, September to October. White-grey sand.	Unlikely – the closest known records are over 50 km south of the survey area.	Unlikely
<i>Eleocharis keigheryi</i>	Keighery's Eleocharis	VU	VU			x	Rhizomatous, clumped perennial, grass-like or herb (sedge), to 0.4 m high. Flowers green, August to November. Clay, sandy loam. Emergent in freshwater: creeks, claypans.	Unlikely – the survey area does not contain optimal habitat for this species. The closest known records are over 25 km east of the survey area.	Unlikely
<i>Eucalyptus argutifolia</i>	Wabbling Hill Mallee	VU	VU		x	x	(Mallee), 1.5-4 m high, bark smooth. Flowers white, March to April. Shallow soils over limestone. Slopes or gullies of limestone ridges, outcrops.	Unlikely – while suitable habitat was found within the survey area, this species is distinctive and would not likely to have been overlooked within the survey area given the survey intensity.	Possible – suitable habitat is present however none were recorded during targeted searches.
<i>Fabronia hampeana</i>		P2		x	x		Moss, white. Has been recorded growing on	Possible – suitable habitat present within the survey area. The	Possible – suitable habitat present.

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
							the trunk of <i>Macrozamia</i> .	closest known records are located with 3 to 5 km south and south-west of the survey area. The collection of non-vascular flora species was outside of the scope of the survey.	
<i>Hibbertia spicata</i> subsp. <i>leptotheca</i>		P3		x	x		Erect or spreading shrub, 0.2-0.5 m high. Flowers yellow, July to October. Occurs on sand near-coastal limestone ridges, outcrops and cliffs.	Known – species recorded within the survey area.	Known – species recorded within the extended survey area.
<i>Jacksonia gracillima</i>		P3		x	x		Perennial tufted herb (1.5 m tall) with narrow leaves 10-40 cm long, with orange and red flowers (October). Grey sand and brown sand/sandy-loam, mid slope with exposed limestone and near damplands.	Unlikely - there is no suitable habitat present within the survey area.	Unlikely - there is suitable habitat within the extended survey area associated with Lake Nowergup however given the degraded nature of the vegetation it is considered unlikely to occur.

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
<i>Jacksonia sericea</i>	Waldjumi	P4		x	x		Low spreading shrub, to 0.6 m high. Flowers orange, usually December or January to February. Calcareous and sandy soils.	Likely – suitable habitat is present throughout the survey area and extended survey area. GHD (2014) recorded this species within the survey area. During the current survey a number of <i>Jacksonia</i> specimens were collected and were formally identified as <i>Jacksonia calcicola</i> . <i>Jacksonia</i> was a common component of the understorey throughout the survey area and extended survey area.	Likely – suitable habitat present. <i>Jacksonia</i> was a common component of the understorey throughout the survey area.
<i>Lepidosperma rostratum</i>	Beaked Lepidosperma	EN	EN			x	Rhizomatous, tufted perennial, gras-like or herb (sedge), 0.5 m high. Flowers brown. Peaty sand, clay.	Highly Unlikely – The nearest records on the Swan Coastal Plain are over 50 km from the survey area. The survey area does not contain optimal habitat for this species.	Highly Unlikely

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
<i>Leucopogon</i> sp. Yanchep (M. Hislop 1986)		P3		x	x		Erect shrub, 0/15-1 m high, to 0.6 m wide. Flowers white/pink, April to June or September. Light grey-yellow sand, brown loam, limestone, laterite, granite. Coastal plain, breakaways, valley slopes, low hills.	Known - species recorded within the survey area.	Known – species recorded within the extended survey area.
<i>Leucopogon maritimus</i>		P1			x		Low spreading shrub up to 40 cm tall. Flowers white in April-May and August. Pale yellow to white-grey sand, upper slopes of coastal dunes, limestone.	Possible – suitable habitat present. The closest known record is located approximately 3 km north of the survey area.	Possible – suitable habitat present.
<i>Marianthus paralius</i>		EN	EN			x	Almost prostrate, eventually scandent, woody shrub. Flowers red in September to November. White sand over limestone. Low coastal cliffs.	Unlikely – no suitable habitat present.	Unlikely – no suitable habitat present.
<i>Melaleuca</i> sp. Wanneroo (G.J. Keighery 16705)		EN		x	x		Erect shrub up to 3 m. Flowers yellow flowering around October to December. On fine sand to sandy	Unlikely – The survey area was thoroughly searched and no individuals were identified.	Known – species recorded within the extended survey area.

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
							loam and brown loamy sand. Limestone ridges and outcropping.		
<i>Pimelea calcicola</i>		P3		x	x		Erect to spreading shrub, 0.2-1 m high. Flowers pink, September to November. Sand. Coastal limestone ridges.	Known – species recorded within the survey area and extended survey area.	Known – species recorded within the extended survey area.
<i>Sarcozona bicarinata</i>		P3		x	x		Shrub, ca 0.1 m high. Flowers white, August. White sand.	Possible – suitable habitat present within the survey area.	Possible – suitable habitat present within the survey area.
<i>Stylidium maritimum</i>		P3		x	x		Caespitose perennial, herb, 0.3-0.7 m high, leaves tufted, linear to narrowly oblanceolate. Membranous scale leaves present at base of mature leaves. Scape glandular throughout. Inflorescence paniculate. Flowers white/purple, September to November. Sand over limestone. Dune slopes and flats. Coastal heath and	Known – species recorded within the survey area.	Known – species recorded within the extended survey area.

Taxa	Common Name	Status		Source			Description and habitat requirements	Likelihood of occurrence within the survey area	Likelihood of occurrence within the extended survey area
		State	Federal	NM	WAHerb/TPFL	PMST			
							shrubland, open Banksia woodland.		
<i>Tetraria</i> sp. Chandala (G.J. Keighery 17055)		P2		x	x		Slender erect sedge. Flowers brown. Mound spring, edge of swamp, black peaty sand.	Highly Unlikely – The survey area does not contain optimal habitat for this species.	Highly Unlikely -



Threatened and Priority Flora Report Form

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under Standard Report Forms

TAXON: <u>Melaleuca sp. Wanneroo</u>		TPFL Pop. No.: _____	
OBSERVATION DATE: <u>5/11/2018</u>		CONSERVATION STATUS: <u>En</u> <input checked="" type="checkbox"/> New population <input checked="" type="checkbox"/>	
OBSERVER/S: <u>Angela Benkovic and Erin Lynch</u>		PHONE: <u>62228361</u>	
ROLE: <u>Botanist</u>		ORGANISATION: <u>GHD</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Neerabup National Park between Hester Ave to Romeo Rd

Reserve No.: R27575

DBC DISTRICT: <u>Swan Coastal</u>		LGA: <u>City of Wanneroo</u>		Land manager present: <input type="checkbox"/>	
DATUM:		COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/> AGD84 / AMG84 <input type="checkbox"/> WGS84 <input type="checkbox"/> Unknown <input type="checkbox"/>		DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input checked="" type="checkbox"/> Lat / Northing: <u>See attached data</u> Long / Easting: _____ ZONE: _____		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/> No. satellites: _____ Map used: _____ Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
LAND TENURE:					
Nature reserve <input type="checkbox"/>		Timber reserve <input type="checkbox"/>		Private property <input type="checkbox"/>	
National park <input checked="" type="checkbox"/>		State forest <input type="checkbox"/>		Pastoral lease <input type="checkbox"/>	
Conservation park <input type="checkbox"/>		Water reserve <input type="checkbox"/>		UCL <input type="checkbox"/> SLK/Pole _____ to _____	
				Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>	
				MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>	
				Specify other: _____	

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/>		Area observed (m ²): <u>1046 ha</u>	
EFFORT: Time spent surveying (minutes): <u>28 days</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input checked="" type="checkbox"/>		Count method: _____ <small>(Refer to field manual for list)</small>	
WHAT COUNTED: Plants <input checked="" type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>			
TOTAL POP'N STRUCTURE:			
	Mature:	Juveniles:	Seedlings:
Alive	<u>3</u>		
Dead			
		Area of pop (m ²): <u>490</u>	
		Note: Pls record count as numbers (not percentages) for database.	
QUADRATS PRESENT:		Total area of quadrats (m ²): _____	
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:		Percentage in flower: <u>100%</u>	
Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input checked="" type="checkbox"/> Flower <input checked="" type="checkbox"/>			
Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehisced fruit <input type="checkbox"/>			

CONDITION OF PLANTS: Healthy Moderate Poor Senescent

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
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Threatened and Priority Flora Report Form

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input checked="" type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>		Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input checked="" type="checkbox"/>	Ironstone <input type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input checked="" type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	30-50% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____	50-100% <input type="checkbox"/>	Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
	Specific Landform Element: _____				
	(Refer to field manual for additional values)				
CONDITION OF SOIL:	Dry <input type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
 2. Open shrubland (Hibbertia sp., Acacia spp.);
 3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Tall closed shrubland Melaleuca systema and Banksia sessilis
2. sparse herbland Desmocladus flexuosus and Lomandra maritima.
3. _____
4. _____

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine Excellent Very good Good Degraded Completely degraded

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: 5<10yrs Fire Intensity: High Medium Low No signs of fire

FENCING: Not required Present Replace / repair Required Length req'd: _____

ROADSIDE MARKERS: Not required Present Replace / reposition Required Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012366 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. Regional Herb. District Herb. Other: _____

ATTACHED: Map Mudmap Photo GIS data Field notes Other: _____

COPY SENT TO: Regional Office District Office Other: _____

Submitter of Record: Angela Benkovic Role: Botanist Signed: Benkovic Date: 05/03/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____

Sheet No.: _____

Record Entered in Database



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under Standard Report Forms

TAXON: <u>Baeckea sp. Limestone</u>		TPFL Pop. No.: _____	
OBSERVATION DATE: <u>15/10/18 & 11/12/18</u>		CONSERVATION STATUS: <u>P1</u> New population <input checked="" type="checkbox"/>	
OBSERVER/S: <u>Angela Benkovic and Erin Lynch</u>		PHONE: <u>62228361</u>	
ROLE: <u>Botanist</u>		ORGANISATION: <u>GHD</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Neerabup National Park and railway line. Within the proposed Mitchell Fwy extension corridor from Hester Ave to Romeo Rd

Reserve No.: R 27575

DBC DISTRICT: <u>Swan Coastal</u>		LGA: <u>City of Wanneroo</u>		Land manager present: <input type="checkbox"/>	
DATUM:		COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>		DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>		Lat / Northing: <u>See attached data</u>		No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>		Long / Easting: _____		Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>		ZONE: _____			
LAND TENURE:					
Nature reserve <input type="checkbox"/>		Timber reserve <input type="checkbox"/>		Private property <input type="checkbox"/>	
National park <input checked="" type="checkbox"/>		State forest <input type="checkbox"/>		Pastoral lease <input type="checkbox"/>	
Conservation park <input type="checkbox"/>		Water reserve <input type="checkbox"/>		UCL <input type="checkbox"/> SLK/Pole _____ to _____	
				Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>	
				MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>	
				Specify other: _____	

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/>		Area observed (m ²): <u>1046 ha</u>	
EFFORT: Time spent surveying (minutes): <u>28 days</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/>		Count method: _____	
(Refer to field manual for list)			
WHAT COUNTED:		Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:			
	Mature:	Juveniles:	Seedlings:
Alive	<u>437</u>		
Dead			
		Area of pop (m ²): _____	
Note: Pls record count as numbers (not percentages) for database.			
QUADRATS PRESENT:		No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____	
Summary Quad. Totals: Alive			
		<u>436</u>	
REPRODUCTIVE STATE:		Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>	
		Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehisced fruit <input type="checkbox"/> Percentage in flower: <u>100%</u>	

CONDITION OF PLANTS: Healthy Moderate Poor Senescent

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing by MRWA for the Mitchell fwy extension from Hester Ave to Romeo Rd within Road reserve	L	L	M
•	---	---	---
•	---	---	---



Threatened and Priority Flora Report Form

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input checked="" type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input checked="" type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input checked="" type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
	Specific Landform Element:				
	(Refer to field manual for additional values)				
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Low heath of mixed species dominated by Melaleuca systema, Calothamnus quadrifidus subsp. quadrifidus, Acacia lasiocarpa var. lasiocarpa
2. mixed dense understorey (dominated by Desmodcladus flexuosus, Mesomelaena pseudostygia and Lomandra maritima
- 3.
- 4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine Excellent Very good Good Degraded Completely degraded

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: 5>10yrs _____ Fire Intensity: High Medium Low No signs of fire

FENCING: Not required Present Replace / repair Required Length req'd: _____

ROADSIDE MARKERS: Not required Present Replace / reposition Required Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012366 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licensing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. Regional Herb. District Herb. Other: _____

ATTACHED: Map Mudmap Photo GIS data Field notes Other: _____

COPY SENT TO: Regional Office District Office Other: _____

Submitter of Record: Angela Benkovic Role: Botanist Signed: [Signature] Date: 05/03/2019