

## Department of Environment and Science

### Regional Ecosystem Technical Descriptions

Technical descriptions provide a detailed description of the full range in structure and floristic composition of regional ecosystems (e.g. 1.1.10) and their component vegetation communities (e.g. 1.11.10a, 1.11.10b).

The descriptions are compiled using site survey data from the Queensland Herbarium's CORVEG database. Distribution maps, representative images (if available) and the pre-clearing and remnant area (hectares) of each vegetation community derived from the regional ecosystem mapping (spatial) data are included. The technical descriptions should be used in conjunction with the fields from the regional ecosystem description database (REDD) for a full description of the regional ecosystem. Quantitative site data from relatively undisturbed sites are extracted from CORVEG and summarized to provide information specific to each vegetation community.

Technical descriptions include the attributes: tree canopy height and cover and native plant species composition of the predominant layer, which are used to assess the remnant status of vegetation under the *Vegetation Management Act 1999*. However, as technical descriptions reflect the full range in structure and floristic composition across the climatic, natural disturbance and geographic range of the regional ecosystem, local reference sites should be used where possible (Neldner *et al.* 2005 section 3.3.3).

The technical descriptions are subject to review and are updated as additional data becomes available.

When conducting a BioCondition assessment, these technical descriptions should be used in conjunction with [BioCondition benchmarks](#) for the specific regional ecosystem, or component vegetation community.

#### Field definitions

Description	Description of the species, structural formation and habitat of the vegetation community (this is not the Regulation description)
Area of pre-clearing regional ecosystem	The area of the regional ecosystem vegetation community before clearing in hectares
Area of remnant RE and percentage remaining	The area of the remnant regional ecosystem vegetation community in hectares and as a percentage of pre-clearing extent
Species recorded	Total number; number of woody species; number in the ground layer (some species can be both woody and occur in the ground layer); average number of species per site (using only sites where a completed species list was recorded); standard deviation; number of sites used to calculate the average species number.
Basal area	Site average, range and standard deviation (m <sup>2</sup> /hectare)
Structural Formation	Percentage of sites by structural formation. For example: Woodland: 39%; open-forest: 39%; open-woodland: 22%, 23 site(s)
Representative CORVEG sites	Site (id) numbers used in the description
For each stratum present:	<ul style="list-style-type: none"> <li>• Emergent (E)</li> <li>• Canopy (T1), Sub-canopy (T2) and Low tree layers (T3)</li> <li>• Shrub (S1) and Sub-shrub layers (S2)</li> <li>• Ground (G)</li> </ul> <ul style="list-style-type: none"> <li>• Height - average canopy height in metres, range in metres and number of sites values are based on.</li> <li>• Cover - Average percentage canopy cover of the layer, range and number of sites values are based on.</li> <li>• Average stem density (stems per hectare), range and number of sites values are based on.</li> </ul>
Dominant species (relative cover, frequency):	<p>Relative cover (mean of cover of species / total cover of all species in that stratum for all values &gt; zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency &gt; 20% listed for each stratum.</p> <p>For example: <i>Abutilon albescens</i> (78, 46%), means this species occurs in 46% of all sites and when it occurs comprises 78% of total cover (of the stratum)</p>
Frequent species (cover, frequency):	<p>Frequent species: Cover (mean of all values &gt; zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency.</p> <p>For example: <i>Abutilon albescens</i> (10, 46%), means this species occurs in 46% of all sites and when it occurs has a mean cover of 10%</p> <p>Ground layer species are listed as either graminoid or forbs.</p> <p>Naturalised species have an asterisk (*) after the scientific name.</p> <p><i>indet.</i> after listed name = indeterminate species or genus</p>

## Department of Environment and Science

### Conditions of use

Technical descriptions have been developed from information published by the State of Queensland (acting through the Department) and remain the property of the State of Queensland. Technical descriptions are not to be included on internet sites other than the Queensland Government website.

Users should reference information contained in the technical descriptions as: Kelman, D.T. (ed.) (year\*) Technical Descriptions of Regional Ecosystems of the Northwest Highlands, (month, year\*) (Queensland Herbarium, Department of Environment and Science: Brisbane). \* Date shown in footnote of individual descriptions.

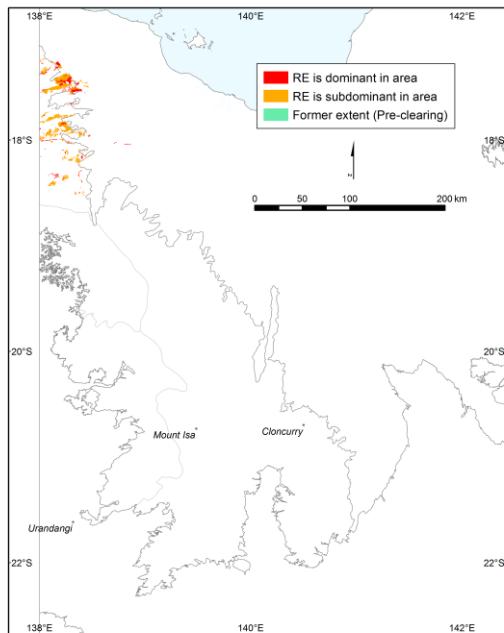
While every effort has been made to ensure the information presented is as reliable as possible, the State of Queensland accepts no liability and gives no assurance in respect of its accuracy and shall not be liable for any loss or damage arising from its use.

Technical descriptions are based on a combination of quantitative and qualitative information and should be used as a guide only. Technical descriptions are not to be used as a substitute for reference sites. Descriptions are subject to review and are updated as additional data becomes available.

### For more information, contact:

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### 1.10.2: Eucalyptus miniata woodland on sandstone plateaus



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 28,312 28,284 99.90%

Species recorded: Total: 82; woody: 45; ground: 40; Avg. spp./site: 24.6; std dev.: 6.2, 5 site(s)

Basal area: Avg./site: 2.2 m<sup>2</sup>/ha, range: 1.0 - 4 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 4 site(s)

Structural formation: Woodland: 40%; open-woodland: 40%; dwarf open-shrubland: 20%, 5 site(s)

Representative sites: 40185, 40224, 42895, 48114, 48134.

#### Stratum: Tree 1

Height avg. = 11.0m, range 6-16m, 5 sites

Crown cover avg. = 22.4%, range 8.0-48.0%, 5 sites

Dominant species (relative cover, frequency): *Eucalyptus miniata* (75, 100%), *Corymbia capricornia* (22, 40%), *Corymbia aspera* (13, 40%)

Frequent species (cover, frequency): *Eucalyptus miniata* (18, 100%), *Corymbia aspera* (2, 40%), *Corymbia capricornia* (4, 40%), *Acacia plectocarpa* subsp. *tanumbirinensis* (20%), *Corymbia ferruginea* subsp. *ferruginea* (4, 20%), *Eucalyptus herbertiana* (7, 20%), *Terminalia canescens* (20%)

#### Stratum: Tree 2

Height avg. = 5.6m, range 3.5-7m, 5 sites

Crown cover avg. = 4.0%, range 0.0-10.0%, 5 sites

Dominant species (relative cover, frequency): *Eucalyptus miniata* (42, 60%), *Corymbia ferruginea* subsp. *ferruginea* (40, 40%)

Frequent species (cover, frequency): *Eucalyptus miniata* (1, 60%), *Corymbia ferruginea* subsp. *ferruginea* (1, 40%), *Acacia drepanocarpa* subsp. *drepanocarpa* (5, 20%), *Cochlospermum gregorii* (2, 20%), *Erythrophleum chlorostachys* (3, 20%), *Gardenia pyriformis* subsp. *orientalis* (5, 20%), *Lysiana spathulata* subsp. *spathulata* (20%), *Marsdenia viridiflora* subsp. *tropica* (20%), *Owenia vernicosa* (2, 20%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Tree 3****Height avg. = 3.5m, range 3-4m, 2 sites****Crown cover avg. = 3.0%, range 2.0-4.0%, 2 sites**

*Frequent species (cover, frequency): Acacia alleniana (3, 20%), Acacia latifolia (20%), Bossiaea bossiaeoides (20%), Buchanania arborescens (20%), Corymbia ferruginea subsp. ferruginea (1, 20%), Eucalyptus miniata (3, 20%), Terminalia canescens (20%)*

**Stratum: Shrub 1****Height avg. = 1.6m, range 1-2.7m, 5 sites****Crown cover avg. = 7.2%, range 1.0-18.0%, 5 sites**

*Dominant species (relative cover, frequency): Scaevola browniana subsp. browniana (29, 40%), Grevillea dryandri subsp. dryandri (19, 60%), Acacia alleniana (18, 80%), Acacia asperulacea (14, 40%), Boronia lanceolata (13, 40%)*

*Frequent species (cover, frequency): Acacia alleniana (2, 80%), Grevillea dryandri subsp. dryandri (1, 60%), Grevillea wickhamii subsp. aprica (60%), Acacia asperulacea (1, 40%), Acacia latifolia (1, 40%), Boronia lanceolata (1, 40%), Eucalyptus miniata (1, 40%), Scaevola browniana subsp. browniana (2, 40%), Acacia drepanocarpa subsp. drepanocarpa (1, 20%), Acacia drepanocarpa subsp. latifolia (12, 20%), Acacia gonooclada (4, 20%), Acacia hammondii (20%), Acacia multisiliqua (20%), Bossiaea bossiaeoides (3, 20%), Breynia oblongifolia (20%), Calytrix brownii (20%), Calytrix exstipulata (20%), Corchorus sericeus (20%), Corymbia aspera (20%), Corymbia ferruginea subsp. ferruginea (1, 20%), Dicarpidium monoicum (20%), Dodonaea hispidula var. hispidula (1, 20%), Erythrophleum chlorostachys (20%), Ficus rubiginosa (1, 20%), Gardenia pyriformis subsp. orientalis (20%), Hibbertia lepidota (20%), Senna indet. (20%), Senna magnifolia (20%), Sida sp. (Murray Springs R.W.Johnson + MRS919) (20%), Tephrosia sp. (Pannikan Springs A.R.Bean + 5612) (1, 20%), Terminalia canescens (20%), Trema tomentosa (20%), Vitex trifolia (20%)*

**Stratum: Shrub 2****Height avg. = 0.9m, range 0.75-1.1m, 2 sites****Crown cover avg. = 17.0%, range 16.0-18.0%, 2 sites**

*Frequent species (cover, frequency): Acacia alleniana (5, 20%), Acacia asperulacea (1, 20%), Acacia drepanocarpa subsp. latifolia (2, 20%), Boronia lanceolata (2, 20%), Breynia oblongifolia (1, 20%), Calytrix exstipulata (2, 20%), Corchorus sericeus (10, 20%), Eucalyptus miniata (1, 20%), Ficus rubiginosa (20%), Gardenia pyriformis subsp. orientalis (20%), Grevillea dryandri subsp. dryandri (20%), Petalostigma quadriloculare (5, 20%), Tephrosia phaeosperma var. (Westmoreland S.Melville 967) (1, 20%), Tephrosia remotiflora (20%), Tephrosia virens (3, 20%), Trema tomentosa (20%)*

**Stratum: Ground****Height avg. = 0.3m, range 0.1-0.4m, 5 sites****PFC avg. = 31.4%, range 15-64%, 5 sites**

*Dominant species (relative cover, frequency): Triodia bitextura (74, 80%), Corchorus sericeus subsp. sericeus (13, 40%), Aristida exserta (8, 40%), Schizachyrium fragile (5, 60%), Triumfetta mellina (3, 40%)*

*Frequent species (cover, frequency): GRAMINOID: Triodia bitextura (26, 80%), Eriachne ciliata (60%), Schizachyrium fragile (2, 60%), Aristida exserta (2, 40%), Cymbopogon procerus (40%), Aristida holathera var. holathera (20%), Bulbostylis barbata (20%), Cyperus astartodes (20%), Cyperus cunninghamii subsp. cunninghamii (20%), Eragrostis indet. (20%), Eriachne sp. (Dugald River B.K.Simon + 3007) (15, 20%), Fimbristylis sphaerocephala (20%), Paspalidium rarum (3, 20%), Triodia microstachya (10, 20%)*

*FORBS: Corchorus sericeus subsp. sericeus (3, 40%), Stemodia lythrifolia (40%), Tephrosia phaeosperma var. (Westmoreland S.Melville 967) (1, 40%), Triumfetta mellina (1, 40%), Anisomeles indet. (20%), Cajanus acutifolius (20%), Cassytha indet. (8, 20%), Cleome viscosa (20%), Evolvulus alsinoides (20%), Ficus rubiginosa (20%), Gonocarpus leptothecus (20%), Goodenia odontellii (20%), Hibiscus burtonii (20%), Mitrasacme connata (20%), Phyllanthus virgatus (20%), Polycarphaea corymbosa (1, 20%), Polycarphaea spirostylis subsp. spirostylis (20%), Sauvagesia rigidulus (20%), Scaevola browniana subsp. browniana (20%), Sida macropoda (20%), Solanum echinatum (20%), Streptoglossa odora (1, 20%), Tephrosia conspicua (20%), Tephrosia delestangii (20%), Tephrosia leptoclada (20%), Triumfetta parviflora (20%)*

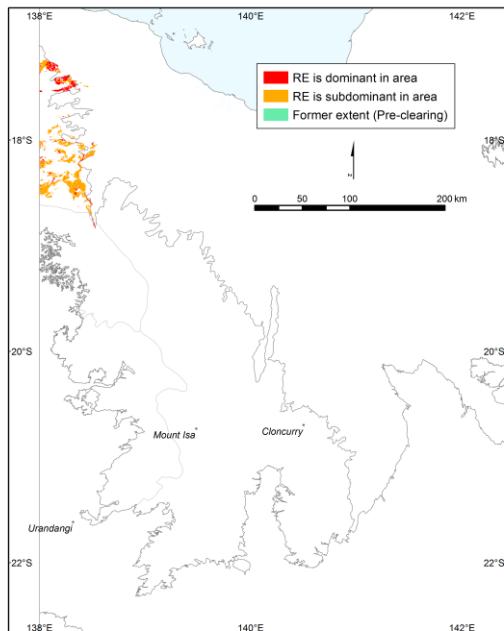
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.10.3: *Corymbia aspera* low open woodland on rocky soils



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 41,072 41,071 100.00%

Species recorded: Total: 69; woody: 37; ground: 34; Avg. spp./site: 28.0; std dev.: 5.0, 3 site(s)

Basal area: Avg./site: 1.5 m<sup>2</sup>/ha, range: 0.5 - 3 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Open-woodland: 33%; low woodland: 33%; low open-woodland: 33%, 3 site(s)

Representative sites: 40204, 40571, 48135.

#### Stratum: Emergent

Height avg. = 12.0m, 1 site

Crown cover avg. = 2.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia aspera* (100, 33%)

Frequent species (cover, frequency): *Corymbia aspera* (2, 33%)

#### Stratum: Tree 1

Height avg. = 7.8m, range 6-11m, 3 sites

Crown cover avg. = 20.7%, range 11.0-33.0%, 3 sites

Dominant species (relative cover, frequency): *Corymbia aspera* (54, 100%), *Acacia plectocarpa* subsp. *tanumbirinensis* (38, 33%), *Owenia vernicosa* (22, 100%), *Ficus subpuberula* (15, 33%), *Buchanania obovata* (11, 33%)

Frequent species (cover, frequency): *Corymbia aspera* (14, 100%), *Owenia vernicosa* (4, 100%), *Acacia plectocarpa* subsp. *tanumbirinensis* (5, 33%), *Buchanania obovata* (2, 33%), *Eucalyptus herbertiana* (33%), *Ficus subpuberula* (2, 33%), *Grevillea wickhamii* subsp. *apraca* (33%), *Livistona inermis* (1, 33%), *Owenia reticulata* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

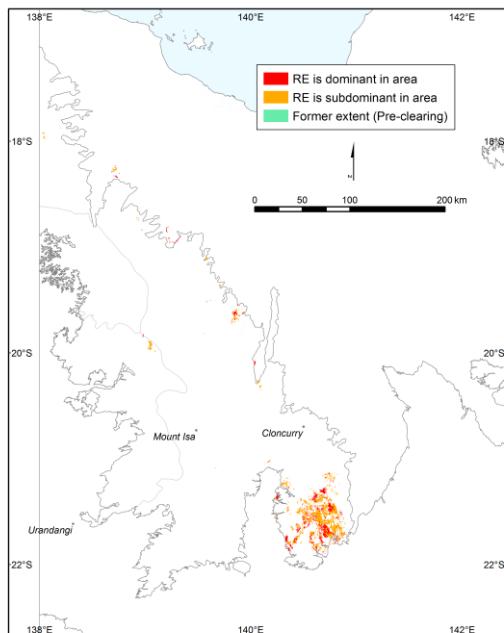
**Stratum: Tree 2****Height avg. = 4.9m, range 3.8-6m, 2 sites****Crown cover avg. = 8.0%, range 2.0-14.0%, 2 sites***Dominant species (relative cover, frequency): Livistona inermis (100, 33%), Ficus subpuberula (57, 33%), Gardenia fucata (36, 33%), Alphitonia excelsa (7, 33%)**Frequent species (cover, frequency): Alphitonia excelsa (1, 33%), Ficus subpuberula (8, 33%), Gardenia fucata (5, 33%), Livistona inermis (2, 33%)***Stratum: Tree 3****Height avg. = 4.0m, 1 site****Crown cover avg. = 3.0%, 1 site***Dominant species (relative cover, frequency): Corymbia aspera (77, 33%), Owenia vernicosa (8, 33%), Livistona inermis (8, 33%), Clerodendrum floribundum (8, 33%)**Frequent species (cover, frequency): Clerodendrum floribundum (33%), Corymbia aspera (1, 33%), Livistona inermis (33%), Owenia vernicosa (33%)***Stratum: Shrub 1****Height avg. = 1.5m, range 1-2.3m, 3 sites****Crown cover avg. = 8.7%, range 3.0-15.0%, 3 sites***Dominant species (relative cover, frequency): Acacia alleniana (47, 33%), Alphitonia excelsa (36, 33%), Calytrix exstipulata (20, 100%), Boronia lanceolata (18, 67%), Calytrix brownii (18, 33%)**Frequent species (cover, frequency): Breynia oblongifolia (100%), Calytrix exstipulata (1, 100%), Boronia lanceolata (2, 67%), Corymbia aspera (67%), Acacia alleniana (8, 33%), Acacia asperulacea (1, 33%), Acacia hyaloneura (33%), Acacia multisiliqua (33%), Alphitonia excelsa (1, 33%), Antidesma parvifolium (33%), Calytrix brownii (3, 33%), Clerodendrum floribundum (33%), Dodonaea viscosa subsp. mucronata (33%), Erythroxylum ellipticum (33%), Ficus subpuberula (1, 33%), Grevillea dryandri subsp. dryandri (33%), Grevillea heliosperma (33%), Grevillea wickhamii subsp. aprica (33%), Helicteres indet. (33%), Hibiscus zonatus (33%), Ipomoea costata (33%), Jacksonia dilatata (33%), Jasminum molle (33%), Livistona inermis (1, 33%), Melaleuca nervosa (33%), Owenia vernicosa (33%), Sersalisia sericea (33%), Sida hackettiana (33%), Sida sp. (Murray Springs R.W.Johnson + MRS919) (33%), Tephrosia virens (1, 33%), Trema tomentosa (33%), Triumfetta mellina (3, 33%)***Stratum: Ground****Height avg. = 0.5m, range 0.2-0.7m, 3 sites****PFC avg. = 22.0%, range 12-37%, 3 sites***Dominant species (relative cover, frequency): Triodia bitextura (92, 33%), Triodia microstachya (60, 33%), Schizachyrium fragile (28, 33%), Cyperus cunninghamii subsp. cunninghamii (24, 33%), Aristida exserta (22, 100%)**Frequent species (cover, frequency): GRAMINOIDs: Aristida exserta (4, 100%), Cyperus portae-tartari (67%), Bulbostylis barbata (33%), Cymbopogon obtectus (33%), Cyperus cunninghamii subsp. cunninghamii (4, 33%), Cyperus microcephalus subsp. microcephalus (33%), Cyperus microcephalus subsp. saxicola (33%), Digitaria minima (33%), Enneapogon lindleyanus (33%), Eragrostis exigua (33%), Eriachne sp. (Dugald River B.K.Simon + 3007) (33%), Fimbristylis sphaerocephala (33%), Fuirena ciliaris (33%), Schizachyrium fragile (5, 33%), Thaumastochloa pubescens (2, 33%), Triodia bitextura (34, 33%), Triodia microstachya (10, 33%)**FORBS: Stemodia lythrifolia (67%), Aerva javanica\* (33%), Blumea saxatilis (33%), Cheilanthes indet. (33%), Cleome viscosa (33%), Corchorus sidoides (33%), Eriocaulon indet. (33%), Polycarpea corymbosa (33%), Polycarpea multicaulis (33%), Psydrax attenuata (33%), Sida indet. (33%), Solanum ellipticum (33%), Tacca leontopetaloides (33%), Tephrosia remotiflora (33%), Triumfetta rupestris (2, 33%), Xenostegia tridentata (33%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.10.4a: Eucalyptus leucophloia and/or Acacia spp. low open woodland on mesozoic sandstone plateaus



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 40,447 40,432 99.96%

Species\_recorded: Total: 58; woody: 22; ground: 40; Avg. spp./site: 15.6; std dev.: 6.3, 5 site(s)

Basal area: Avg./site: 2.9 m<sup>2</sup>/ha, range: 0.3 - 7 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 5 site(s)

Structural formation: Low open-woodland: 100%, 5 site(s)

Representative\_sites: 24271, 24272, 24408, 40852, 42149.

#### Stratum: Tree 1

Height avg. = 5.7m, range 2.5-7m, 5 sites

Crown cover avg. = 17.8%, range 6.0-31.4%, 5 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (77, 100%), *Corymbia capricornia* (14, 60%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (12, 100%), *Corymbia capricornia* (3, 60%), *Apophyllum anomalum* (20%), *Corymbia aspera* (1, 20%), *Eremophila mitchellii* (3, 20%), *Grevillea wickhamii* subsp. *apraca* (20%), *Terminalia aridicola* subsp. *aridicola* (4, 20%)

#### Stratum: Tree 2

Height avg. = 3.0m, 1 site

Crown cover avg. = 4.0%, 1 site

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (4, 20%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 1****Height avg. = 1.1m, range 0.3-1.5m, 5 sites****Crown cover avg. = 3.8%, range 0.6-16.0%, 5 sites**

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (27, 40%), *Acacia retivenea* subsp. *retivenea* (27, 40%)

Frequent species (cover, frequency): *Acacia retivenea* subsp. *retivenea* (40%), *Eucalyptus leucophloia* subsp. *euroa* (40%), *Acacia acradenia* (20%), *Acacia chippendalei* (20%), *Acacia holosericea* (20%), *Alphitonia pomaderroides* (20%), *Capparis lasiantha* (20%), *Carissa lanceolata* (20%), *Corymbia aspera* (20%), *Corymbia capricornia* (1, 20%), *Dodonaea lanceolata* var. *lanceolata* (20%), *Dodonaea stenophylla* (1, 20%), *Eremophila latrobei* (15, 20%), *Flueggea virosa* subsp. *melanthesoides* (20%), *Senna indet.* (20%), *Senna venusta* (20%), *Sida indet.* (1, 20%), *Terminalia aridicola* (20%), *Terminalia aridicola* subsp. *aridicola* (20%)

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.5m, 5 sites****PFC avg. = 30.2%, range 3-62%, 5 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (72, 80%), *Cleome viscosa* (3, 60%), *Sida indet.* (2, 60%), *Heliotropium ballii* (2, 60%), *Solanum esuriale* (2, 40%)

Frequent species (cover, frequency): GRAMINOIDs: *Triodia pungens* (19, 80%), *Cyperus indet.* (20%), *Enneapogon indet.* (20%), *Enneapogon lindleyanus* (20%), *Eriachne ciliata* (20%), *Eriachne mucronata* (2, 20%), *Eulalia aurea* (2, 20%), *Triodia brizoides* (60, 20%), *Triodia molesta* (4, 20%), *Yakirra australiensis* var. *australiensis* (20%)

FORBS: *Cleome viscosa* (60%), *Heliotropium ballii* (60%), *Sida indet.* (60%), *Solanum esuriale* (40%), *Stemodia lythrifolia* (40%), *Abutilon hannii* (20%), *Acacia holosericea* (20%), *Acacia retivenea* subsp. *retivenea* (1, 20%), *Alternanthera indet.* (20%), *Boerhavia indet.* (20%), *Corchorus pumilio* (20%), *Corchorus sericeus* (1, 20%), *Corchorus sericeus* subsp. *sericeus* (20%), *Dodonaea hispidula* var. *hispidula* (20%), *Grevillea wickhamii* subsp. *apraca* (20%), *Hibiscus sturtii* (20%), *Indigofera colutea* (20%), *Malvaceae indet.* (20%), *Melhania oblongifolia* (1, 20%), *Polycarpaea spirostylis* subsp. *spirostylis* (20%), *Pterocaulon serrulatum* var. *velutinum* (20%), *Pterocaulon sphacelatum* (20%), *Ptilotus obovatus* (20%), *Senna notabilis* (1, 20%), *Solanum echinatum* (20%), *Spermacoce auriculata* (20%), *Streptoglossa odora* (20%), *Triumfetta plumigera* (20%), *Waltheria indica* (20%)

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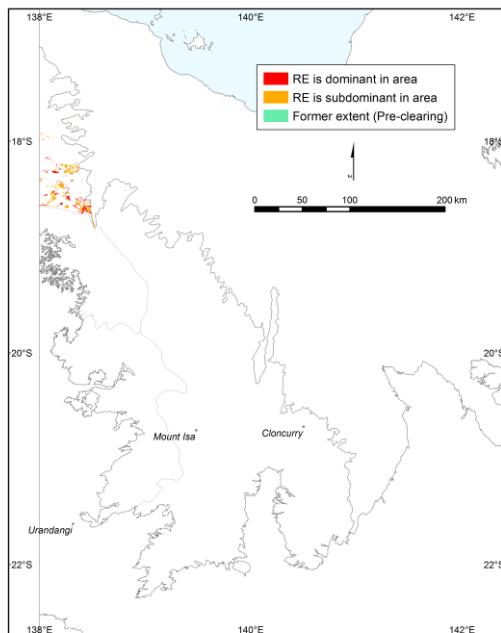
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.10.4b: Eucalyptus leucophloia low open woodland on stony Proterozoic sandstone hills and colluvium



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 14,056 14,052 99.97%

Species\_recorded: Total: 13; woody: 2; ground: 11; Avg. spp./site: 13.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative\_sites: 40568.

#### Stratum: Tree 1

Height avg. = 6.0m, 1 site

Crown cover avg. = 7.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (100, 100%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (7, 100%)

#### Stratum: Tree 2

Height avg. = 3.5m, 1 site

Crown cover avg. = 0.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (100, 100%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

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**Stratum: Shrub 1****Height avg. = 0.9m, 1 site****Crown cover avg. = 0.0%, 1 site***Dominant species (relative cover, frequency): Petalostigma quadriloculare (100, 100%)**Frequent species (cover, frequency): Petalostigma quadriloculare (100%)*

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**Stratum: Ground****Height avg. = 0.5m, 1 site****PFC avg. = 23.0%, 1 site***Dominant species (relative cover, frequency): Triodia pungens (96, 100%)**Frequent species (cover, frequency): GRAMINOIDs: Cymbopogon bombycinus (100%), Cymbopogon procerus (100%)**Eriachne mucronata (100%), Eriachne sp. (Dugald River B.K.Simon+ 3007) (100%), Triodia pungens (22, 100%)**FORBS: Acacia asperulacea (100%), Acacia hammondii (100%), Buchnera indet. (100%), Hibiscus indet. (100%), Polygala isingii (100%), Sida sp. (Murray Springs R.W.Johnson+ MRS919) (100%)*

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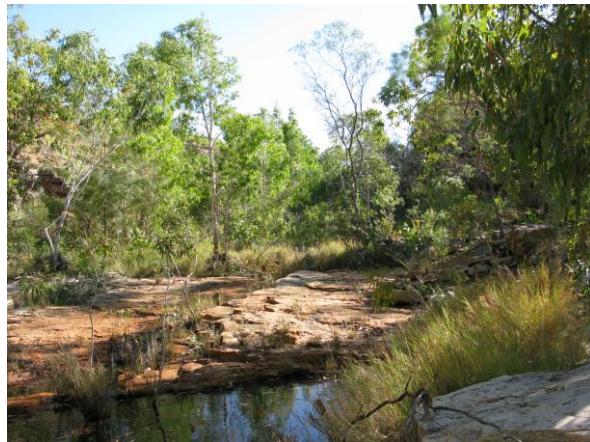
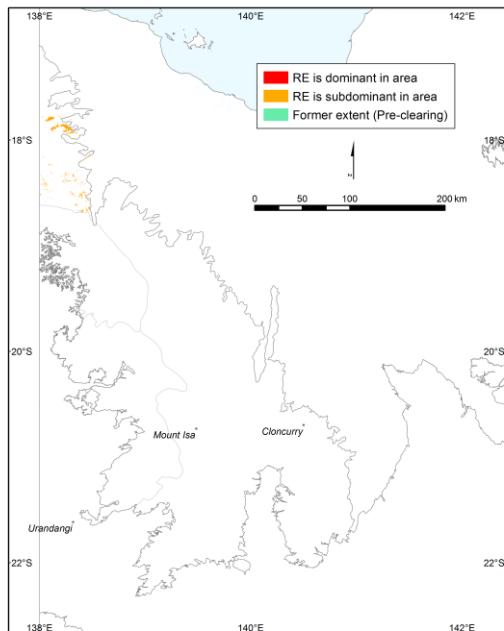
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.10.6: Springs mostly associated with quartzose sandstone



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 1,778 1,778 100.00%

**Species recorded:** Total: 77; woody: 52; ground: 27; Avg. spp./site: 34.3; std dev.: 3.3, 3 site(s)

**Basal area:** Avg./site: 9.8 m<sup>2</sup>/ha, range: 5.3 - 16 m<sup>2</sup>/ha, std. deviation: 5 m<sup>2</sup>/ha, 3 site(s)

**Structural formation:** Woodland: 67%; open-forest: 33%, 3 site(s)

**Representative sites:** 40364, 40365, 40538.

#### Stratum: Tree 1

**Height avg. = 18.7m, range 13-30m, 3 sites**

**Crown cover avg. = 43.0%, range 26.0-70.0%, 3 sites**

*Dominant species (relative cover, frequency): Corymbia ptychocarpa subsp. ptychocarpa (79, 67%), Melaleuca fluviatilis (71, 67%)*

*Frequent species (cover, frequency): Corymbia ptychocarpa subsp. ptychocarpa (45, 67%), Melaleuca fluviatilis (20, 67%), Lophostemon grandiflorus subsp. riparius (33%), Melaleuca viridiflora (33%)*

#### Stratum: Tree 2

**Height avg. = 10.8m, range 5.5-18m, 3 sites**

**Crown cover avg. = 15.3%, range 3.0-36.0%, 3 sites**

*Dominant species (relative cover, frequency): Syzygium angophoroides (68, 33%), Melaleuca fluviatilis (48, 67%), Corymbia ptychocarpa subsp. ptychocarpa (46, 67%), Eucalyptus camaldulensis (28, 33%), Vitex heligiton (3, 33%)*

*Frequent species (cover, frequency): Corymbia ptychocarpa subsp. ptychocarpa (2, 67%), Melaleuca fluviatilis (8, 67%), Acacia plectocarpa subsp. tanumbirinensis (33%), Brachychiton collinus (33%), Corymbia aspera (33%), Eucalyptus camaldulensis (2, 33%), Grevillea pteridifolia (33%), Livistona rigida (33%), Lophostemon grandiflorus subsp. riparius (1, 33%), Melaleuca viridiflora (33%), Melia azedarach (33%), Nauclea orientalis (33%), Syzygium angophoroides (25, 33%), Tinospora smilacina (33%), Vitex heligiton (33%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Tree 3****Height avg. = 9.0m, 1 site****Crown cover avg. = 13.0%, 1 site**

Dominant species (relative cover, frequency): *Syzygium angophoroides* (81, 33%), *Pandanus aquaticus* (8, 33%), *Lophostemon grandiflorus* subsp. *riparius* (8, 33%), *Passiflora foetida*\* (1, 33%), *Ficus brachypoda* (1, 33%)

Frequent species (cover, frequency): *Capparis lasiantha* (33%), *Ficus brachypoda* (33%), *Lophostemon grandiflorus* subsp. *riparius* (1, 33%), *Pandanus aquaticus* (1, 33%), *Passiflora foetida*\* (33%), *Syzygium angophoroides* (10, 33%)

**Stratum: Shrub 1****Height avg. = 2.7m, range 2-3m, 3 sites****Crown cover avg. = 32.3%, range 12.0-64.0%, 3 sites**

Dominant species (relative cover, frequency): *Acacia platycarpa* (47, 67%), *Syzygium angophoroides* (45, 33%), *Grevillea pteridifolia* (43, 67%), *Melastoma malabathricum* subsp. *malabathricum* (23, 67%), *Melaleuca fluviatilis* (5, 67%)

Frequent species (cover, frequency): *Acacia holosericea* (100%), *Acacia platycarpa* (30, 67%), *Acacia tropica* (67%), *Clerodendrum floribundum* (67%), *Grevillea pteridifolia* (9, 67%), *Melaleuca fluviatilis* (1, 67%), *Melaleuca viridiflora* (1, 67%), *Melastoma malabathricum* subsp. *malabathricum* (3, 67%), *Abrus precatorius* (33%), *Acacia alleniana* (33%), *Acacia hemsleyi* (33%), *Acacia latifolia* (33%), *Celtis strychnoides* (33%), *Corymbia ptychocarpa* subsp. *ptychocarpa* (2, 33%), *Cucumis* indet. (33%), *Erythrophleum chlorostachys* (33%), *Eucalyptus camaldulensis* (33%), *Ficus aculeata* var. *aculeata* (33%), *Ficus racemosa* (33%), *Ficus virens* (33%), *Flueggea virosa* subsp. *melanthesoides* (33%), *Lophostemon grandiflorus* subsp. *riparius* (33%), *Syzygium angophoroides* (5, 33%), *Terminalia* indet. (33%)

**Stratum: Shrub 2****Height avg. = 1.1m, range 0.9-1.3m, 3 sites****Crown cover avg. = 14.3%, range 10.0-21.0%, 3 sites**

Dominant species (relative cover, frequency): *Pandanus aquaticus* (97, 33%), *Syzygium angophoroides* (54, 33%), *Acacia tropica* (35, 33%), *Trema tomentosa* (22, 33%), *Bossiaea bossiaeoides* (14, 33%)

Frequent species (cover, frequency): *Aristida holathera* var. *holathera* (33%), *Aristida ingrata* (33%), *Digitaria* indet. (33%), *Breynia oblongifolia* (67%), *Melastoma malabathricum* subsp. *malabathricum* (1, 67%), *Abrus precatorius* (33%), *Acacia alleniana* (1, 33%), *Acacia hammondii* (33%), *Acacia hemsleyi* (1, 33%), *Acacia holosericea* (1, 33%), *Acacia latifolia* (33%), *Acacia platycarpa* (33%), *Acacia plectocarpa* subsp. *tanumbirinensis* (33%), *Acacia tenuissima* (33%), *Acacia tropica* (5, 33%), *Boronia lanceolata* (33%), *Bossiaea bossiaeoides* (2, 33%), *Calytrix brownii* (1, 33%), *Clerodendrum floribundum* (33%), *Flueggea virosa* subsp. *melanthesoides* (33%), *Grevillea pteridifolia* (33%), *Melaleuca fluviatilis* (33%), *Melaleuca viridiflora* (33%), *Pandanus aquaticus* (20, 33%), *Petalostigma quadriloculare* (1, 33%), *Plectranthus scutellarioides* (33%), *Santalum lanceolatum* (1, 33%), *Syzygium angophoroides* (5, 33%), *Tephrosia* indet. (33%), *Trema tomentosa* (2, 33%), *Wrightia saligna* (33%)

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.6m, 3 sites****PFC avg. = 17.0%, range 8-26%, 3 sites**

Dominant species (relative cover, frequency): *Syzygium angophoroides* (80, 33%), *Bothriochloa* indet. (76, 33%), *Eriachne triseta* (41, 67%), *Panicum* indet. (13, 33%), *Fimbristylis pauciflora* (7, 67%)

Frequent species (cover, frequency): GRAMINOIDs: *Cyperus haspan* (100%), *Fimbristylis nutans* (1, 100%), *Eriachne triseta* (5, 67%), *Fimbristylis pauciflora* (1, 67%), *Scleria rugosa* (67%), *Arundinella setosa* (33%), *Bothriochloa* indet. (20, 33%), *Chrysopogon elongatus* (33%), *Cyperus holoschoenus* (33%), *Fuirena ciliaris* (33%), *Panicum* indet. (1, 33%)

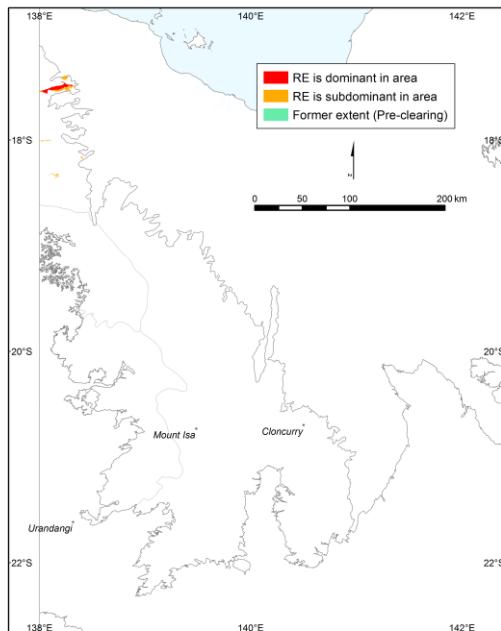
FORBS: *Xyris complanata* (67%), *Cajanus pubescens* (33%), *Cochlospermum gillivraei* (33%), *Corchorus sericeus* subsp. *densiflorus* (33%), *Dicliptera armata* (33%), *Eriocaulon setaceum* (33%), *Hibbertia lepidota* (33%), *Hibiscus meraukensis* (33%), *Lygodium microphyllum* (1, 33%), *Microstachys chamaelea* (33%), *Passiflora foetida*\* (33%), *Philydrum lanuginosum* (33%), *Stemodia lythrifolia* (33%), *Syzygium angophoroides* (14, 33%), *Tephrosia phaeosperma* var. (Westmoreland S.Melville 967) (33%), *Waltheria indica* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.10.9: Acacia spp. and/or Calytrix exstipulata open shrubland on rock pavement



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 8,614 8,614 100.00%

**Species recorded:** Total: 42; woody: 19; ground: 24; Avg. spp./site: 22.0; std dev.: 3.0, 2 site(s)

**Basal area:** 0

**Structural formation:** Tall open-shrubland: 50%; open-shrubland: 50%, 2 site(s)

**Representative sites:** 34328, 40305.

#### Stratum: Emergent

**Height avg. = 6.0m, 1 site**

**Crown cover avg. = 1.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus herbertiana (91, 50%), Eucalyptus miniata (9, 50%)*

*Frequent species (cover, frequency): Eucalyptus herbertiana (1, 50%), Eucalyptus miniata (50%)*

#### Stratum: Shrub 1

**Height avg. = 3.3m, range 2-4.5m, 2 sites**

**Crown cover avg. = 11.0%, range 2.0-20.0%, 2 sites**

*Dominant species (relative cover, frequency): Acacia indet. (71, 50%), Acacia latifolia (41, 50%), Jacksonia dilatata (36, 50%), Grevillea pteridifolia (15, 50%), Cochlospermum gregorii (6, 50%)*

*Frequent species (cover, frequency): Acacia indet. (1, 50%), Acacia latifolia (8, 50%), Acacia plectocarpa subsp. tanumbirinensis (1, 50%), Acacia torulosa (50%), Boronia lanceolata (50%), Calytrix brownii (50%), Cassytha indet. (50%), Cochlospermum gregorii (50%), Eucalyptus herbertiana (50%), Ficus cerasicarpa (50%), Grevillea pteridifolia (3, 50%), Hibiscus zonatus (50%), Jacksonia dilatata (7, 50%), Melaleuca viridiflora (50%), Senna venusta (50%), Stemonia lythrifolia (50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 0.3m, 1 site****Crown cover avg. = 1.0%, 1 site**

*Dominant species (relative cover, frequency): Calytrix exstipulata (77, 50%), Jacksonia dilatata (8, 50%), Grevillea pteridifolia (8, 50%), Corymbia aspera (8, 50%)*

*Frequent species (cover, frequency): Calytrix exstipulata (1, 50%), Corymbia aspera (50%), Grevillea pteridifolia (50%), Jacksonia dilatata (50%)*

**Stratum: Ground****Height avg. = 0.5m, range 0.3-0.7m, 2 sites****PFC avg. = 17.5%, range 14-21%, 2 sites**

*Dominant species (relative cover, frequency): Triodia microstachya (95, 50%), Triodia bitextura (66, 50%), Eriachne sp. (Dugald River B.K.Simon+ 3007) (13, 100%), Cheilanthes brownii (1, 50%), Cleome cleomoides (1, 50%)*

*Frequent species (cover, frequency): GRAMINOIDs: Eriachne sp. (Dugald River B.K.Simon+ 3007) (2, 100%), Cyperus crispulus (50%), Cyperus microcephalus (50%), Cyperus microcephalus subsp. saxicola (50%), Cyperus portae-tartari (50%), Cyperus sexflorus (50%), Ectrosia leporina (50%), Triodia bitextura (10, 50%), Triodia microstachya (20, 50%)*

*FORBS: Blumea saxatilis (50%), Cheilanthes brownii (50%), Cleome cleomoides (50%), Dicliptera spicata (50%), Gomphrena flaccida (50%), Gomphrena lanata (50%), Gonocarpus leptothecus (50%), Mitrasacme ambigua (50%), Mitrasacme sp. (Warang M.B.Thomas 1571) (50%), Polycarphaea corymbosa (50%), Polycarphaea multicaulis (50%), Polycarphaea spirostylis (50%), Polymeria ambigua (50%), Stemodia lythrifolia (50%), Triumfetta mellina (50%)*

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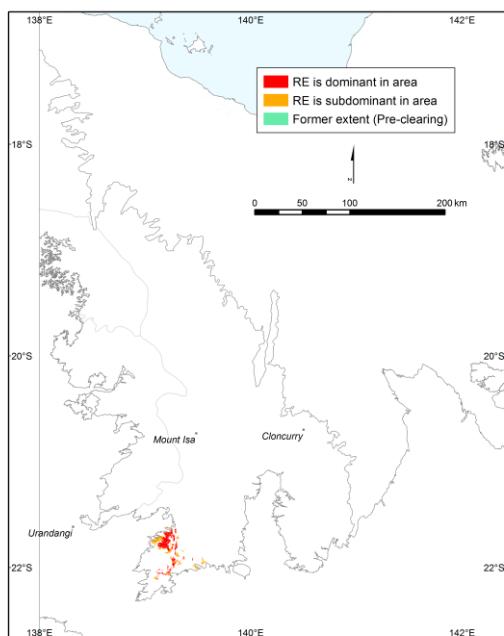
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.10a: Mixed low open woodland including *Corymbia terminalis*, *Atalaya hemiglauc*a, *Hakea* spp., and *Corymbia aparrerinja* on bare metamorphic plains



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 20,886 20,879 99.97%

Species\_recorded: Total: 53; woody: 14; ground: 47; Avg. spp./site: 23.0; std dev.: 1.4, 3 site(s)

Basal area: Avg./site: 0.3 m<sup>2</sup>/ha, range: 0.3 - 0 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 3 site(s)

Representative\_sites: 45334, 45335, 55614.

#### Stratum: Tree 1

Height avg. = 4.8m, range 4-6m, 3 sites

Crown cover avg. = 6.0%, range 2.0-10.0%, 3 sites

Dominant species (relative cover, frequency): *Corymbia terminalis* (71, 100%), *Hakea lorea* subsp. *lorea* (45, 33%), *Atalaya hemiglauc*a (19, 67%), *Corymbia aparrerinja* (5, 33%)

Frequent species (cover, frequency): *Corymbia terminalis* (5, 100%), *Atalaya hemiglauc*a (1, 67%), *Corymbia aparrerinja* (33%), *Hakea lorea* subsp. *lorea* (1, 33%)

#### Stratum: Shrub 1

Height avg. = 1.5m, range 1-2m, 3 sites

Crown cover avg. = 5.3%, range 1.0-10.0%, 3 sites

Dominant species (relative cover, frequency): *Acacia chisholmii* (61, 67%), *Eremophila cordatisepala* (58, 33%), *Hakea lorea* subsp. *lorea* (25, 33%), *Gossypium australe* (25, 33%), *Senna artemisioides* subsp. *helmsii* (22, 67%)

Frequent species (cover, frequency): *Acacia chisholmii* (5, 67%), *Carissa lanceolata* (1, 67%), *Senna artemisioides* subsp. *helmsii* (1, 67%), *Senna glutinosa* subsp. *pruinosa* (67%), *Acacia ancistrocarpa* (33%), *Eremophila cordatisepala* (3, 33%), *Gossypium australe* (33%), *Hakea lorea* subsp. *lorea* (33%), *Senna artemisioides* subsp. *oligophylla* (33%), *Senna artemisioides* subsp. *sturtii* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 0.4m, 1 site****Crown cover avg. = 6.0%, 1 site***Dominant species (relative cover, frequency): Eremophila obovata subsp. obovata (100, 33%)**Frequent species (cover, frequency): Eremophila obovata subsp. obovata (6, 33%)***Stratum: Ground****Height avg. = 0.4m, range 0.2-0.5m, 3 sites****PFC avg. = 16.0%, range 13-20%, 3 sites***Dominant species (relative cover, frequency): Triodia molesta (67, 67%), Enneapogon indet. (30, 33%), Aristida contorta (23, 100%), Themeda triandra (15, 67%), Eriachne mucronata (7, 33%)**Frequent species (cover, frequency): GRAMINOIDs: Aristida contorta (4, 100%), Themeda triandra (3, 67%), Triodia molesta (12, 67%), Bulbostylis barbata (33%), Cenchrus pennisetiformis\* (33%), Cymbopogon bombycinus (33%), Enneapogon indet. (5, 33%), Enneapogon lindleyanus (33%), Eriachne mucronata (1, 33%), Panicum decompositum var. decompositum (33%), Paspalidium rarum (33%), Sporobolus australasicus (33%)*

*FORBS: Hybanthus aurantiacus (67%), Melhania oblongifolia (67%), Salsola australis (67%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (67%), Abutilon hannii (33%), Boerhavia repleta (33%), Bonamia media (33%), Cajanus acutifolius (33%), Cleome viscosa (33%), Crotalaria novae-hollandiae subsp. novae-hollandiae (33%), Einadia nutans subsp. eremaea (33%), Enchytraea tomentosa var. tomentosa (33%), Euphorbia papillata var. papillata (33%), Euphorbia prostrata\* (33%), Evolvulus alsinoides (33%), Heliotropium haesum (33%), Heliotropium tenuifolium (33%), Hibiscus sturtii var. grandiflorus (33%), Indigofera colutea (33%), Indigofera linifolia (33%), Indigofera linnaei (33%), Phyllanthus maderaspatensis var. maderaspatensis (33%), Portulaca filifolia (33%), Portulaca oleracea\* (33%), Ptilotus macrocephalus (33%), Ptilotus obovatus (33%), Ptilotus sessilifolius (33%), Scaevola ovalifolia (33%), Sida fibulifera (33%), Solanum quadriloculatum (33%), Spermacoce indet. (33%), Streptoglossa odora (33%), Tephrosia indet. (33%), Tephrosia supina (33%), Trichodesma zeylanicum var. zeylanicum (33%)*

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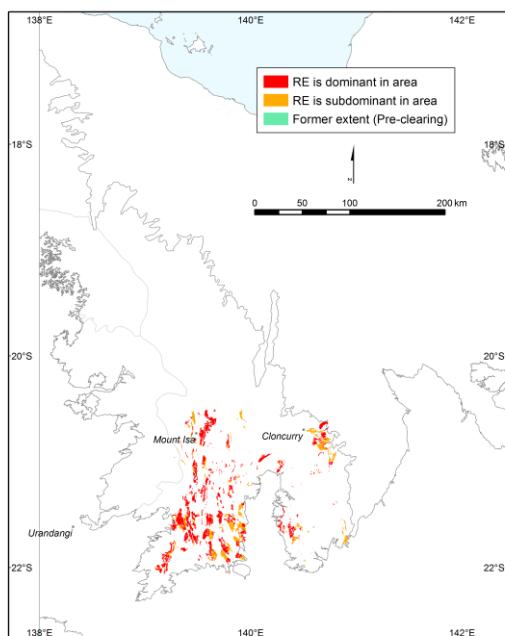
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.10b: Mixed low open woodland including *Eucalyptus leucophylla* on undulating infertile metamorphic landscapes



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 148,774 148,470 99.80%

Species\_recorded: Total: 22; woody: 10; ground: 17; Avg. spp./site: 22.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative\_sites: 57314.

#### Stratum: Tree 1

Height avg. = 7.0m, 1 site

Crown cover avg. = 6.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (62, 100%), *Corymbia aparrerinja* (31, 100%), *Hakea lorea* subsp. *lorea* (2, 100%), *Grevillea striata* (2, 100%), *Corymbia terminalis* (2, 100%)

Frequent species (cover, frequency): *Acacia cambagei* (100%), *Acacia excelsa* subsp. *angusta* (100%), *Corymbia aparrerinja* (2, 100%), *Corymbia terminalis* (100%), *Eucalyptus leucophylla* (4, 100%), *Grevillea striata* (100%), *Hakea lorea* subsp. *lorea* (100%)

#### Stratum: Shrub 1

Height avg. = 1.2m, 1 site

Crown cover avg. = 0.0%, 1 site

Dominant species (relative cover, frequency): *Senna artemisioides* subsp. *artemisioides* (33, 100%), *Carissa lanceolata* (33, 100%), *Atalaya hemiglauca* (33, 100%)

Frequent species (cover, frequency): *Atalaya hemiglauca* (100%), *Carissa lanceolata* (100%), *Senna artemisioides* subsp. *artemisioides* (100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.3m, 1 site****PFC avg. = 20.0%, 1 site**

Dominant species (relative cover, frequency): *Triodia brizoides* (48, 100%), *Eriachne mucronata* (14, 100%), *Paraneurachne muelleri* (10, 100%), *Sporobolus australasicus* (5, 100%), *Cleome viscosa* (5, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida contorta* (1, 100%), *Cenchrus pennisetiformis\** (100%), *Dactyloctenium radulans* (1, 100%), *Enneapogon polyphyllus* (100%), *Eriachne mucronata* (3, 100%), *Fimbristylis dichotoma* (100%), *Paraneurachne muelleri* (2, 100%), *Sporobolus australasicus* (1, 100%), *Triodia brizoides* (10, 100%), *Tripogon loliiformis* (1, 100%)

FORBS: *Bonamia indet.* (100%), *Cleome viscosa* (1, 100%), *Euphorbia tannensis* subsp. *eremophila* (100%), *Heliotropium indet.* (100%), *Ptilotus spicatus* (100%), *Salsola australis* (100%), *Sclerolaena indet.* (100%)

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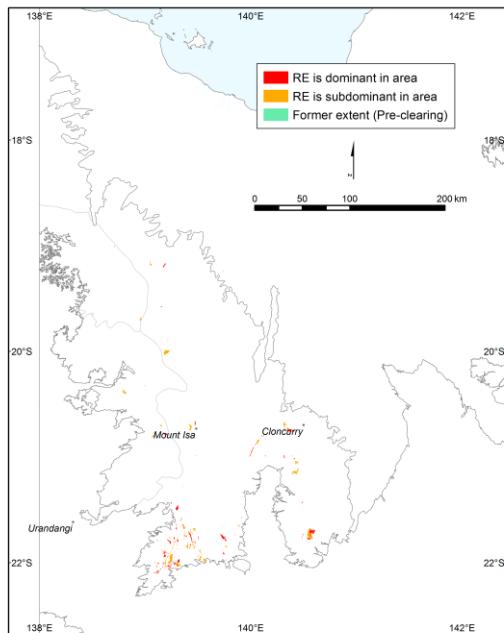
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.11: Triodia spp. hummock grassland on metamorphic hills (south)



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 16,518 16,506 99.93%

Species recorded: Total: 64; woody: 28; ground: 36; Avg. spp./site: 19.5; std dev.: 6.1, 4 site(s)

Basal area: Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Hummock grassland: 100%, 4 site(s)

Representative sites: 19490, 45120, 45377, 55735.

#### Stratum: Emergent

Height avg. = 4.3m, range 2-5.5m, 3 sites

Crown cover avg. = 4.9%, range 2.0-9.8%, 3 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (56, 25%), *Eucalyptus leucophloia* subsp. *euroa* (40, 50%), *Acacia hemignosta* (28, 25%), *Eremophila longifolia* (23, 25%), *Hibiscus coatesii* (23, 25%)

Frequent species (cover, frequency): *Acacia chisholmii* (75%), *Eucalyptus leucophloia* subsp. *euroa* (1, 50%), *Senna artemisioides* subsp. *helmsii* (50%), *Acacia chippendalei* (1, 25%), *Acacia hemignosta* (1, 25%), *Acacia holosericea* (25%), *Acacia retinenea* subsp. *retinenea* (25%), *Atalaya hemiglaica* (25%), *Cajanus lanuginosus* (25%), *Carissa lanceolata* (25%), *Corymbia aparrerinja* (25%), *Eremophila longifolia* (1, 25%), *Eucalyptus leucophylla* (2, 25%), *Eucalyptus normantonensis* (25%), *Gossypium australe* (25%), *Gossypium indet.* (25%), *Grevillea striata* (25%), *Grevillea wickhamii* subsp. *apraca* (25%), *Hakea lorea* subsp. *loreia* (25%), *Hibiscus coatesii* (1, 25%), *Hibiscus sturtii* var. *sturtii* (25%), *Santalum lanceolatum* (25%), *Senna artemisioides* subsp. *oligophylla* (25%), *Senna notabilis* (25%), *Trichodesma zeylanicum* (25%)

#### Stratum: Shrub 1

Height avg. = 1.2m, 1 site

Crown cover avg. = 0.0%, 1 site

Dominant species (relative cover, frequency): *Senna glutinosa* subsp. *luerssenii* (20, 25%), *Senna glutinosa* subsp. *glutinosa* (20, 25%), *Acacia chisholmii* (20, 25%), *Acacia chippendalei* (20, 25%), *Acacia bivenosa* (20, 25%)

Frequent species (cover, frequency): *Acacia bivenosa* (25%), *Acacia chippendalei* (25%), *Acacia chisholmii* (25%), *Senna glutinosa* subsp. *glutinosa* (25%), *Senna glutinosa* subsp. *luerssenii* (25%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 0.5m, 1 site****Crown cover avg. = 3.0%, 1 site**

Dominant species (relative cover, frequency): *Acacia chippendalei* (94, 25%), *Senna glutinosa* subsp. *luerssenii* (3, 25%), *Senna artemisioides* subsp. *helmsii* (3, 25%)

Frequent species (cover, frequency): *Acacia chippendalei* (3, 25%), *Senna artemisioides* subsp. *helmsii* (25%), *Senna glutinosa* subsp. *luerssenii* (25%)

**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.6m, 4 sites****PFC avg. = 31.8%, range 20-50%, 4 sites**

Dominant species (relative cover, frequency): *Triodia molesta* (96, 75%), *Triodia pungens* (79, 25%), *Cenchrus pennisetiformis\** (10, 25%), *Heliotropium tenuifolium* (4, 75%)

Frequent species (cover, frequency): GRAMINOIDs: *Triodia molesta* (26, 75%), *Aristida* indet. (25%), *Cenchrus pennisetiformis\** (5, 25%), *Cymbopogon obtectus* (25%), *Enneapogon* indet. (25%), *Enneapogon lindleyanus* (25%), *Eragrostis eriopoda* (25%), *Eriachne mucronata* (25%), *Fimbristylis dichotoma* (25%), *Fimbristylis* indet. (25%), *Panicum decompositum* var. *decompositum* (25%), *Paspalidium rarum* (25%), *Triodia longiceps* (25%), *Triodia pungens* (40, 25%)

FORBS: *Cleome viscosa* (75%), *Heliotropium tenuifolium* (2, 75%), *Indigofera linifolia* (50%), *Boerhavia* indet. (25%), *Cassytha capillaris* (25%), *Corchorus sericeus* (25%), *Cynanchum viminale* subsp. *australe* (25%), *Euphorbia tannensis* subsp. *tannensis* (25%), *Evolvulus alsinoides* (25%), *Heliotropium haesum* (25%), *Lysiana subfalcata* (25%), *Peripleura obovata* (25%), *Pluchea ferdinandi-muelleri* (25%), *Portulaca oleracea*\* (25%), *Pterocaulon serrulatum* var. *serrulatum* (25%), *Ptilotus fusiformis* (25%), *Ptilotus obovatus* (25%), *Rostellularia adscendens* subsp. *adscendens* (25%), *Sida* sp. (Musselbrook M.B.Thomas+ MRS437) (25%), *Solanum succosum* (25%), *Streptoglossa odora* (25%)

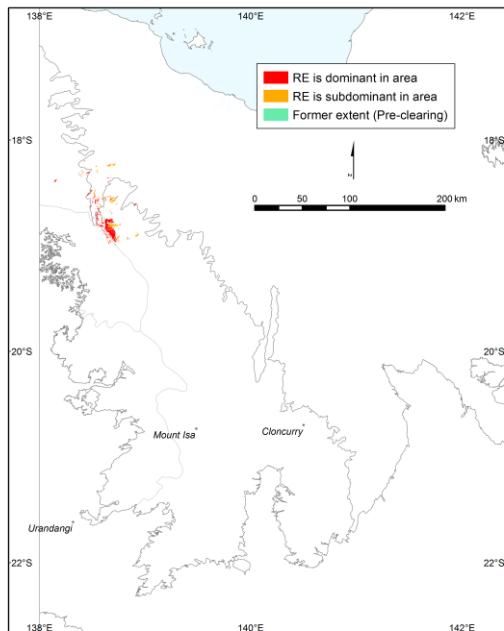
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.11.12: Triodia pungens hummock grassland (north)



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 15,392 14,949 97.12%

Species recorded: Total: 30; woody: 5; ground: 25; Avg. spp./site: 30.0; std dev.: 0.0, 1 site(s)

Basal area: 0

Structural formation: Hummock grassland: 100%, 1 site(s)

Representative sites: 40540.

#### Stratum: Emergent

Height avg. = 5.0m, 1 site

Crown cover avg. = 1.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia grandifolia* subsp. *grandifolia* (77, 100%), *Eucalyptus pruinosa* subsp. *pruinosa* (8, 100%), *Eucalyptus leucophloia* subsp. *euroa* (8, 100%), *Atalaya hemiglaucha* (8, 100%)

Frequent species (cover, frequency): *Atalaya hemiglaucha* (100%), *Corymbia grandifolia* subsp. *grandifolia* (1, 100%), *Eucalyptus leucophloia* subsp. *euroa* (100%), *Eucalyptus pruinosa* subsp. *pruinosa* (100%)

#### Stratum: Shrub 1

Height avg. = 2.0m, 1 site

Crown cover avg. = 0.0%, 1 site

Dominant species (relative cover, frequency): *Ventilago viminalis* (100, 100%)

Frequent species (cover, frequency): *Ventilago viminalis* (100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.3m, 1 site****PFC avg. = 78.0%, 1 site**

Dominant species (relative cover, frequency): *Triodia pungens* (90, 100%), *Eriachne mucronata* (6, 100%), *Cenchrus pennisetiformis\** (1, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Bulbostylis barbata* (100%), *Cenchrus pennisetiformis\** (1, 100%), *Cymbopogon ambiguus* (100%), *Cyperus blakeanus* (100%), *Cyperus microcephalus* subsp. *microcephalus* (100%), *Enneapogon polypylus* (100%), *Eriachne mucronata* (5, 100%), *Eriachne* sp. (Dugald River B.K.Simon+ 3007) (100%), *Mnesithea formosa* (100%), *Schizachyrium* indet. (100%), *Triodia pungens* (70, 100%)

FORBS: *Achyranthes aspera* (100%), *Cheilanthes* indet. (100%), *Cleome viscosa* (100%), *Crotalaria* indet. (100%), *Cucumis melo* (100%), *Euphorbia hassallii* (100%), *Galactia* indet. (100%), *Gomphrena lanata* (100%), *Heliotropium ballii* (100%), *Indigofera linifolia* (100%), *Indigofera linnaei* (100%), *Pterocaulon serrulatum* (100%), *Solanum echinatum* (100%), *Uraria lagopodioides* (100%)

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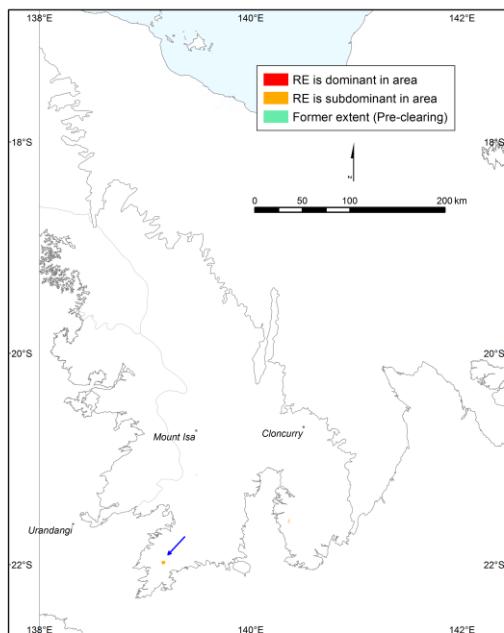
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.13: Grassland on clays derived from metamorphic rocks



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 386 386 100.00%

Species recorded: Total: 31; woody: 0; ground: 31; Avg. spp./site: 31.0; std dev.: 0.0, 1 site(s)

Basal area: 0

Structural formation: Tussock grassland: 100%, 1 site(s)

Representative sites: 59656.

#### Stratum: Ground

Height avg. = 0.3m, 1 site

PFC avg. = 49.0%, 1 site

Dominant species (relative cover, frequency): *Astrebla pectinata* (45, 100%), *Dactyloctenium radulans* (23, 100%), *Sida fibulifera* (6, 100%), *Rhynchosia minima* var. *australis* (4, 100%), *Crotalaria medicaginea* (4, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida latifolia* (100%), *Astrebla pectinata* (23, 100%), *Bothriochloa ewartiana* (100%), *Brachyachne convergens* (100%), *Cenchrus pennisetiformis*\* (100%), *Dactyloctenium radulans* (12, 100%), *Dichanthium sericeum* subsp. *humilius* (100%), *Iseilema vaginiflorum* (1, 100%), *Sporobolus actinocladus* (2, 100%), *Themeda triandra* (100%)

FORBS: *Abelmoschus ficulneus* (100%), *Abutilon* indet. (100%), *Boerhavia paludosa* (100%), *Commelina ensifolia* (100%), *Corchorus trilocularis* (100%), *Crotalaria dissitiflora* subsp. *dissitiflora* (100%), *Crotalaria medicaginea* (2, 100%), *Goodenia lunata* (100%), *Malvastrum americanum* var. *americanum*\* (100%), *Neptunia dimorphantha* (1, 100%), *Ocimum caryophyllum* (100%), *Portulaca* sp. (Rockhampton Downs S.T. Blake 17854) (100%), *Ptilotus spicatus* (1, 100%), *Rhynchosia minima* var. *australis* (2, 100%), *Sclerolaena bicornis* (100%), *Senna planiticola* (100%), *Sida fibulifera* (3, 100%), *Sida* indet. (2, 100%), *Solanum esuriale* (100%), *Streptoglossa adscendens* (100%), *Trianthema triquetra* (100%)

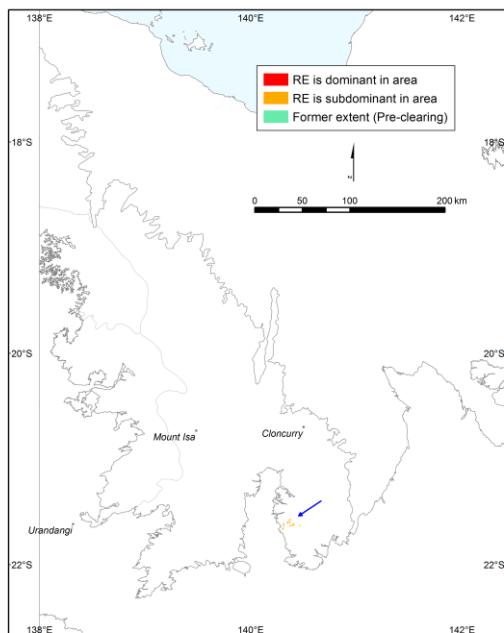
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.14: *Acacia cambagei* low open woodland on clay soils derived from metamorphic rocks



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 449 449 100.00%

Species recorded: Total: 36; woody: 5; ground: 31; Avg. spp./site: 36.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 3.3 m<sup>2</sup>/ha, range: 3.3 - 3 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative sites: 59654.

#### Stratum: Tree 1

Height avg. = 6.0m, 1 site

Crown cover avg. = 14.0%, 1 site

Dominant species (relative cover, frequency): *Acacia cambagei* (99, 100%), *Capparis lasiantha* (1, 100%)

Frequent species (cover, frequency): *Acacia cambagei* (14, 100%), *Capparis lasiantha* (100%)

#### Stratum: Tree 2

Height avg. = 3.0m, 1 site

Crown cover avg. = 1.0%, 1 site

Dominant species (relative cover, frequency): *Acacia cambagei* (100, 100%)

Frequent species (cover, frequency): *Acacia cambagei* (1, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 0.8m, 1 site****Crown cover avg. = 1.0%, 1 site**

*Dominant species (relative cover, frequency): Acacia cambagei (77, 100%), Senna phyllodinea (8, 100%), Senna artemisioides subsp. helmsii (8, 100%), Carissa lanceolata (8, 100%)*

*Frequent species (cover, frequency): Acacia cambagei (1, 100%), Carissa lanceolata (100%), Senna artemisioides subsp. helmsii (100%), Senna phyllodinea (100%)*

**Stratum: Ground****Height avg. = 0.3m, 1 site****PFC avg. = 25.0%, 1 site**

*Dominant species (relative cover, frequency): Sida indet. (27, 100%), Dactyloctenium radulans (14, 100%), Astrebla pectinata (14, 100%), Trianthema triquetra (10, 100%), Sporobolus caroli (7, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Astrebla pectinata (4, 100%), Brachyachne convergens (100%), Dactyloctenium radulans (4, 100%), Dichanthium sericeum subsp. humilius (100%), Enneapogon avenaceus (100%), Eragrostis dielsii (100%), Eragrostis xerophila (100%), Iseilema vaginiflorum (100%), Sporobolus actinocladus (2, 100%), Sporobolus australasicus (1, 100%), Sporobolus caroli (2, 100%), Sporobolus contiguus (100%)*

*FORBS: Abutilon indet. (100%), Boerhavia indet. (100%), Enchytraea tomentosa (100%), Evolvulus alsinoides (100%), Malvastrum americanum var. americanum\* (1, 100%), Melhania oblongifolia (100%), Neptunia dimorphantha (100%), Neptunia indet. (100%), Portulaca sp. (Rockhampton Downs S.T. Blake 17854) (100%), Ptilotus indet. (100%), Ptilotus spicatus (100%), Rhynchosia minima (100%), Salsola australis (100%), Sclerolaena eriacantha (100%), Sida fibulifera (100%), Sida indet. (8, 100%), Sida spinosa\* (2, 100%), Solanum succosum (100%), Trianthema triquetra (3, 100%)*

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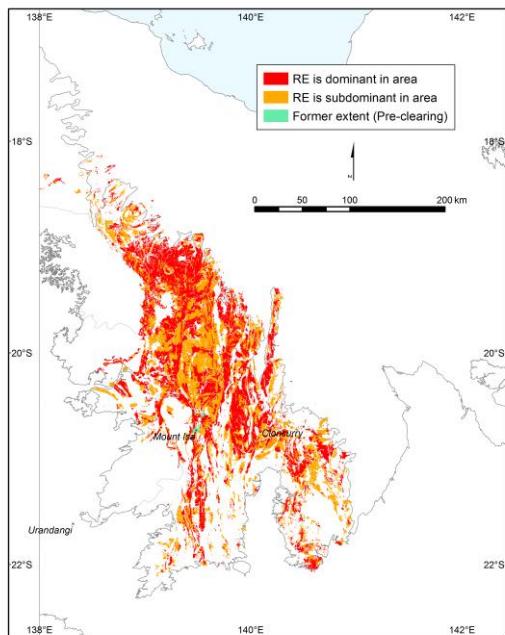
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.2a: *Eucalyptus leucophloia* low open woodland often with *Corymbia* spp., *Terminalia aridicola* and *E. leucophylla*



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 1,211,094 1,205,823 99.56%

Species\_recorded: Total: 338; woody: 110; ground: 268; Avg. spp./site: 24.3; std dev.: 10.0, 52 site(s)

Basal area: Avg./site: 2.2 m<sup>2</sup>/ha, range: 0.3 - 8 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 45 site(s)

Structural formation: Low open-woodland: 88%; low woodland: 8%; tall shrubland: 2%; hummock grassland: 2%, 52 site(s)

Representative\_sites: 19304, 19311, 19312, 19314, 19316, 19319, 19325, 19336, 19340, 19341, 19342, 19345, 19377, 19378, 19380, 19381, 19383, 19385, 19386, 19391, 19392, 19400, 19404, 19422, 19436, 19459, 19508, 19548, 23414, 23421, 23422, 24259, 24270, 24404, 24410, 40410, 40572, 40851, 42063, 42070, 42117, 42145, 42146, 42152, 42153, 42155, 42182, 45122, 45287, 45369, 45378, 55756.

#### Stratum: Emergent

Height avg. = 6.9m, range 3.5-9m, 4 sites

Crown cover avg. = 1.3%, range 0.0-4.0%, 4 sites

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (1, 4%), *Corymbia capricornia* (2, 2%), *Corymbia terminalis* (1, 2%)

#### Stratum: Tree 1

Height avg. = 5.4m, range 2-7m, 52 sites

Crown cover avg. = 12.3%, range 2.0-50.0%, 52 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (80, 96%), *Corymbia capricornia* (24, 23%), *Corymbia terminalis* (18, 21%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (9, 96%), *Corymbia capricornia* (4, 23%), *Corymbia terminalis* (1, 21%), *Eucalyptus leucophylla* (1, 15%), *Corymbia aparrerinja* (1, 13%), *Corymbia aspera* (9, 8%), *Eucalyptus normantonensis* (19, 8%), *Terminalia aridicola* (2, 8%), *Atalaya hemiglaucha* (6%), *Eucalyptus pruinosa* subsp. *pruinosa* (4%), *Acacia cambagei* (2%), *Acacia gonooclada* (2%), *Acacia holosericea* (2%), *Acacia monticola* (2%), *Brachychiton collinus* (1, 2%), *Corymbia grandifolia* subsp. *grandifolia* (2%), *Diplatia grandibractea* (2%), *Eucalyptus odontocarpa* (2, 2%), *Hakea chordophylla* (2%), *Melaleuca viridiiflora* (5, 2%), *Terminalia aridicola* subsp. *aridicola* (2%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Tree 2****Height avg. = 3.4m, range 2.5-5m, 11 sites****Crown cover avg. = 3.1%, range 0.0-10.0%, 11 sites**

Frequent species (cover, frequency): *Terminalia aridicola* (1, 12%), *Eucalyptus leucophloia* subsp. *euroa* (2, 8%), *Acacia monticola* (1, 4%), *Corymbia capricornia* (7, 4%), *Denhamia cunninghamii* (4%), *Atalaya hemiglauba* (2%), *Corymbia aparrerinja* (2, 2%), *Eremophila longifolia* (1, 2%), *Grevillea wickhamii* subsp. *apraca* (1, 2%), *Hakea lorea* subsp. *loreia* (2%), *Psydrax attenuata* (2%), *Santalum lanceolatum* (2, 2%), *Terminalia canescens* (2%)

**Stratum: Shrub 1****Height avg. = 1.7m, range 0.5-3.5m, 51 sites****Crown cover avg. = 13.8%, range 0.0-65.0%, 51 sites**

Dominant species (relative cover, frequency): *Carissa lanceolata* (26, 27%)

Frequent species (cover, frequency): *Carissa lanceolata* (1, 27%), *Eremophila longifolia* (1, 19%), *Eucalyptus leucophloia* subsp. *euroa* (1, 19%), *Acacia chisholmii* (7, 17%), *Acacia orthocarpa* (18, 15%), *Atalaya hemiglauba* (2, 15%), *Acacia retivenea* subsp. *retivenea* (13%), *Gossypium australe* (13%), *Dodonaea* indet. (3, 12%), *Acacia monticola* (17, 10%), *Acacia gonoclada* (2, 8%), *Acacia hilliana* (36, 8%), *Acacia holosericea* (2, 8%), *Acacia phlebocarpa* (20, 8%), *Acacia tenuissima* (1, 8%), *Denhamia cunninghamii* (8%), *Santalum lanceolatum* (8%), *Capparis lasiantha* (6%), *Corymbia capricornia* (1, 6%), *Dodonaea viscosa* subsp. *angustissima* (1, 6%), *Grevillea striata* (6%), *Grevillea wickhamii* subsp. *apraca* (1, 6%), *Hakea lorea* subsp. *loreia* (6%), *Terminalia aridicola* (1, 6%), *Acacia lysiphloia* (1, 4%), *Dodonaea barklyana* (1, 4%), *Dodonaea stenophylla* (4%), *Eremophila latrobei* (1, 4%), *Eremophila latrobei* subsp. *latrobei* (4%), *Eremophila mitchellii* (4%), *Eucalyptus leucophylla* (2, 4%), *Senna artemisioides* subsp. *helmsii* (1, 4%), *Senna notabilis* (4%), *Tephrosia* indet. (2, 4%), *Terminalia canescens* (4%), *Abutilon fraseri* (2%), *Abutilon leucopetalum* (2%), *Acacia acradenia* (2%), *Acacia cambagei* (1, 2%), *Acacia chippendalei* (2%), *Acacia citriodora* (88, 2%), *Acacia colei* (2%), *Acacia elachantha* (2%), *Acacia laccata* (20, 2%), *Acacia monticola* x *A. phlebocarpa* (2%), *Acacia torulosa* (4, 2%), *Acacia victoriae* (2%), *Alphitonia excelsa* (2%), *Apophyllum anomalum* (2%), *Cajanus lanuginosus* (2%), *Capparis loranthifolia* var. *loranthifolia* (1, 2%), *Capparis umbonata* (2%), *Corymbia grandifolia* subsp. *grandifolia* (2%), *Corymbia terminalis* (2, 2%), *Cullen balsamicum* (3, 2%), *Cullen* indet. (2%), *Dodonaea lanceolata* var. *lanceolata* (2%), *Dodonaea viscosa* (2%), *Eucalyptus pruinosa* subsp. *pruinosa* (2%), *Flueggea virosa* subsp. *melanthesoides* (2%), *Grevillea* indet. (1, 2%), *Grevillea mimosoides* (2%), *Hakea* indet. (2%), *Indigofera leucotricha* (2%), *Indigofera pratensis* (2%), *Lysiana spathulata* (2%), *Lysiana spathulata* subsp. *spathulata* (2%), *Marsdenia australis* (2%), *Psydrax oleifolia* (2%), *Senna artemisioides* subsp. *oligophylla* (2, 2%), *Senna glutinosa* subsp. *glutinosa* (2%), *Senna oligoclada* (2%), *Sida hackettiana* (2%), *Tephrosia eriocarpa* (1, 2%), *Tephrosia leptoclada* (2%), *Tephrosia* sp. (Mt Isa P.L.Harris 277) (2%), *Terminalia aridicola* subsp. *aridicola* (2%), *Triumfetta* indet. (2%), *Vachellia bidwillii* (2%), *Vachellia farnesiana*\* (2%)

**Stratum: Shrub 2****Height avg. = 1.0m, range 0.5-1.5m, 14 sites****Crown cover avg. = 14.2%, range 0.0-50.0%, 14 sites**

Frequent species (cover, frequency): *Eremophila longifolia* (1, 8%), *Acacia galiooides* (4%), *Acacia melleodora* (3, 4%), *Acacia phlebocarpa* (23, 4%), *Acacia retivenea* subsp. *retivenea* (5, 4%), *Eremophila latrobei* (1, 4%), *Jacksonia ramosissima* (1, 4%), *Petalostigma banksii* (1, 4%), *Senna artemisioides* subsp. *oligophylla* (3, 4%), *Abutilon leucopetalum* (2%), *Acacia chippendalei* (5, 2%), *Acacia elachantha* (4, 2%), *Acacia gonoclada* (20, 2%), *Acacia hilliana* (50, 2%), *Acacia* indet. (3, 2%), *Acacia orthocarpa* (3, 2%), *Cajanus lanuginosus* (30, 2%), *Capparis lasiantha* (2%), *Carissa lanceolata* (2%), *Crotalaria novae-hollandiae* subsp. *novae-hollandiae* (2%), *Dodonaea barklyana* (1, 2%), *Dodonaea hispidula* var. *hispidula* (1, 2%), *Dodonaea physocarpa* (2%), *Dodonaea stenophylla* (2%), *Gossypium australe* (2%), *Grevillea dryandri* subsp. *dryandri* (1, 2%), *Hibiscus brachychlaenus* (2%), *Hibiscus sturtii* (2%), *Hibiscus sturtii* var. *grandiflorus* (2%), *Indigofera* indet. (2%), *Indigofera leucotricha* (2%), *Jacksonia* indet. (1, 2%), *Petalostigma quadriloculare* (5, 2%), *Pterocaulon* indet. (2%), *Senna artemisioides* subsp. *helmsii* (2%), *Senna glutinosa* subsp. *glutinosa* (2%), *Senna notabilis* (2%), *Senna oligoclada* (2%), *Tephrosia leptoclada* (2%), *Trema tomentosa* (2%), *Triumfetta plumigera* (2%), *Triumfetta rupestris* (1, 2%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.5m, range 0.3-1m, 49 sites****PFC avg. = 50.3%, range 12-87%, 52 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (59, 58%), *Triodia molesta* (52, 37%), *Eriachne mucronata* (11, 35%), *Themeda triandra* (7, 27%), *Enneapogon lindleyanus* (6, 38%)

Frequent species (cover, frequency): GRAMINOIDs: *Triodia pungens* (28, 58%), *Enneapogon polyphyllus* (1, 40%), *Enneapogon lindleyanus* (3, 38%), *Triodia molesta* (24, 37%), *Eriachne mucronata* (5, 35%), *Eulalia aurea* (3, 33%), *Cymbopogon bombycinus* (31%), *Themeda triandra* (5, 27%), *Aristida holathera* var. *holathera* (3, 19%), *Aristida pruinosa* (1, 19%), *Bulbostylis barbata* (19%), *Eriachne mucronata* forma (Burnham R.W.Purdie 1370) (2, 19%), *Triodia longiceps* (29, 19%), *Schizachyrium fragile* (3, 17%), *Triodia bitextura* (18, 17%), *Cymbopogon ambiguus* (2, 15%), *Eriachne ciliata* (15%), *Heteropogon contortus* (15%), *Bothriochloa erwartiana* (3, 13%), *Digitaria brownii* (13%), *Sporobolus australasicus* (13%), *Eriachne* sp. (Dugald River B.K.Simon+ 3007) (1, 12%), *Mnesithea formosa* (5, 12%), *Triodia brizoides* (21, 12%), *Aristida contorta* (10%), *Tripogon loliformis* (10%), *Aristida latifolia* (1, 8%), *Fimbristylis* indet. (8%), *Sehima nervosum* (10, 8%), *Aristida inaequiglumis* (6%), *Aristida* indet. (2, 6%), *Aristida ingrata* (2, 6%), *Chrysopogon fallax* (1, 6%), *Digitaria ctenantha* (6%), *Panicum effusum* (6%)

FORBS: *Corchorus sidoides* (1, 29%), *Heliotropium ballii* (29%), *Hibiscus sturtii* (25%), *Waltheria indica* (1, 25%), *Cleome viscosa* (23%), *Evolvulus alsinoides* var. *decumbens* (21%), *Indigofera linifolia* (21%), *Sida fibulifera* (21%), *Sida* indet. (21%), *Ptilotus fusiformis* (19%), *Tephrosia* indet. (19%), *Heliotropium tenuifolium* (17%), *Euphorbia* indet. (15%), *Pterocaulon serrulatum* (15%), *Crotalaria medicaginea* (13%), *Cheilanthes brownii* (12%), *Evolvulus alsinoides* var. *vilosicalyx* (12%), *Indigofera* indet. (12%), *Phyllanthus* indet. (12%), *Polycarphaea corymbosa* (12%), *Solanum echinatum* (12%), *Solanum quadriloculatum* (12%), *Solanum succosum* (12%), *Abutilon oxycarpum* (10%), *Acacia chippendalei* (2, 10%), *Cassytha* indet. (1, 10%), *Corchorus sericeus* (1, 10%), *Cynanchum brevipedicellatum* (1, 10%), *Indigofera linnaei* (10%), *Melhania oblongifolia* (10%), *Salsola australis* (10%), *Sida* sp. (Musselbrook M.B.Thomas+ MRS437) (10%), *Zornia muriculata* (10%), *Alternanthera* indet. (8%), *Boerhavia burbidgeana* (8%), *Boerhavia* indet. (8%), *Bonamia* indet. (8%), *Cheilanthes* indet. (8%), *Galactia* indet. (8%), *Hybanthus aurantiacus* (8%), *Hybanthus* indet. (8%), *Indigofera colutea* (8%), *Pterocaulon serrulatum* var. *serrulatum* (8%), *Abutilon hannii* (6%), *Abutilon leucopetalum* (6%), *Alternanthera nana* (6%), *Amaranthus interruptus* (6%), *Carissa lanceolata* (6%), *Convolvulaceae* indet. (6%), *Crotalaria novae-hollandiae* subsp. *novae-hollandiae* (6%), *Dodonaea lanceolata* var. *lanceolata* (6%), *Euphorbia tannensis* (6%), *Goodenia grandiflora* (6%), *Gossypium australe* (6%), *Indigofera pratensis* (6%), *Malvastrum americanum* (6%), *Ptilotus nobilis* subsp. *nobilis* (1, 6%), *Ptilotus schwartzii* (6%), *Sida hackettiana* (6%), *Tephrosia* sp. (Mt Isa P.L.Harris 277) (6%), *Trichodesma zeylanicum* (6%), *Xenostegia tridentata* (6%), *Zornia muriculata* subsp. *angustata* (6%)

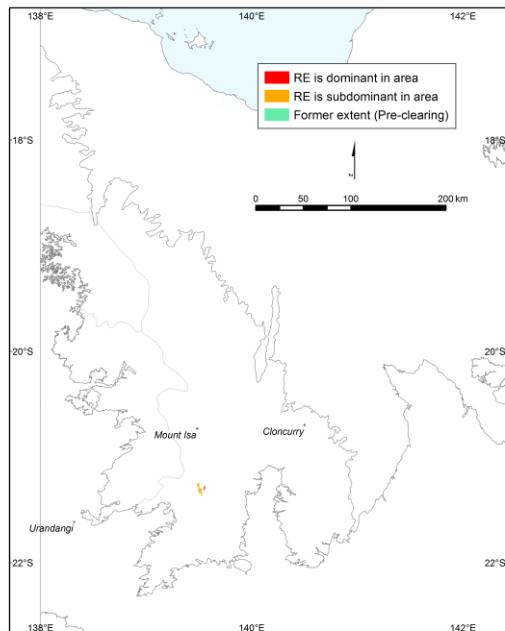
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.11.2h: Mixed mallee form low open woodland on metamorphic hills



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 682 682 100.00%

**Species recorded:** Total: 20; woody: 13; ground: 7; Avg. spp./site: 20.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low open-woodland: 100%, 1 site(s)

**Representative sites:** 55555.

#### Stratum: Tree 1

**Height avg. = 3.5m, 1 site**

**Crown cover avg. = 16.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus melanophloia subsp. nana (43, 100%), Eucalyptus normantonensis (19, 100%), Eucalyptus gamophylla (19, 100%), Corymbia capricornia (12, 100%), Eucalyptus leucophloia subsp. euroa (6, 100%)*

*Frequent species (cover, frequency): Corymbia capricornia (2, 100%), Eucalyptus gamophylla (3, 100%), Eucalyptus leucophloia subsp. euroa (1, 100%), Eucalyptus melanophloia subsp. nana (7, 100%), Eucalyptus melanophloia x E. normantonensis (100%), Eucalyptus normantonensis (3, 100%)*

#### Stratum: Shrub 1

**Height avg. = 1.2m, 1 site**

**Crown cover avg. = 7.0%, 1 site**

*Dominant species (relative cover, frequency): Acacia acradenia (83, 100%), Acacia monticola (14, 100%), Grevillea wickhamii subsp. aprica (1, 100%), Gastrolobium grandiflorum (1, 100%)*

*Frequent species (cover, frequency): Acacia acradenia (6, 100%), Acacia monticola (1, 100%), Gastrolobium grandiflorum (100%), Grevillea wickhamii subsp. aprica (100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 2****Height avg. = 0.5m, 1 site****Crown cover avg. = 5.0%, 1 site**

Dominant species (relative cover, frequency): *Grevillea dryandri* subsp. *dryandri* (59, 100%), *Jacksonia* indet. (39, 100%), *Dodonaea lanceolata* var. *lanceolata* (2, 100%)

Frequent species (cover, frequency): *Dodonaea lanceolata* var. *lanceolata* (100%), *Grevillea dryandri* subsp. *dryandri* (3, 100%), *Jacksonia* indet. (2, 100%)

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**Stratum: Ground****Height avg. = 0.4m, 1 site****PFC avg. = 35.0%, 1 site**

Dominant species (relative cover, frequency): *Triodia molesta* (93, 100%), *Triodia pungens* (6, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Cymbopogon bombycinus* (100%), *Triodia molesta* (33, 100%), *Triodia pungens* (2, 100%)

FORBS: *Euphorbia tannensis* subsp. *tannensis* (100%), *Goodenia ramelii* (100%), *Sida fibulifera* (100%), *Streptoglossa* indet. (100%)

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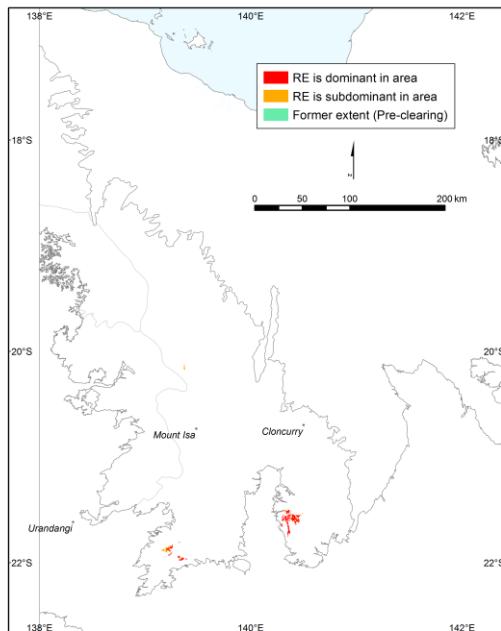
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.2i: *Eucalyptus normantonensis* low open woodland on low metamorphic hills and plains



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 11,237 11,226 99.91%

Species recorded: Total: 23; woody: 8; ground: 15; Avg. spp./site: 13.0; std dev.: 6.0, 2 site(s)

Basal area: Avg./site: 1.5 m<sup>2</sup>/ha, range: 1.0 - 2 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative sites: 55715, 55937.

#### Stratum: Tree 1

Height avg. = 5.0m, range 5-5m, 2 sites

Crown cover avg. = 9.5%, range 7.0-12.0%, 2 sites

Dominant species (relative cover, frequency): *Eucalyptus normantonensis* (99, 100%), *Eucalyptus leucophloia* subsp. *euroa* (1, 50%)

Frequent species (cover, frequency): *Eucalyptus normantonensis* (10, 100%), *Eucalyptus leucophloia* subsp. *euroa* (50%)

#### Stratum: Tree 2

Height avg. = 2.0m, 1 site

Crown cover avg. = 1.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus normantonensis* (100, 50%)

Frequent species (cover, frequency): *Eucalyptus normantonensis* (50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

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**Stratum: Shrub 1****Height avg. = 1.0m, range 0.7-1.2m, 2 sites****Crown cover avg. = 0.0%, range 0.0-0.0%, 2 sites**

Dominant species (relative cover, frequency): *Senna artemisioides* subsp. *oligophylla* (33, 50%), *Acacia acradenia* (33, 50%), *Senna artemisioides* subsp. *helmsii* (29, 100%), *Scaevola glutinosa* (25, 50%), *Acacia bivenosa* (25, 50%)

Frequent species (cover, frequency): *Senna artemisioides* subsp. *helmsii* (100%), *Acacia acradenia* (50%), *Acacia adsurgens* (50%), *Acacia bivenosa* (50%), *Scaevola glutinosa* (50%), *Senna artemisioides* subsp. *oligophylla* (50%)

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**Stratum: Ground****Height avg. = 0.7m, range 0.6-0.7m, 2 sites****PFC avg. = 45.5%, range 38-53%, 2 sites**

Dominant species (relative cover, frequency): *Triodia longiceps* (98, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Triodia longiceps* (46, 100%), *Cymbopogon bombycinus* (50%)

*Enneapogon polypylloides* (50%), *Panicum effusum* (50%), *Paspalidium rarum* (50%), *Sporobolus australasicus* (50%)

FORBS: *Cassytha indet.* (50%), *Euphorbia tannensis* (50%), *Evolvulus alsinoides* var. *vilosicalyx* (50%), *Heliotropium haesum* (50%), *Maireana villosa* (50%), *Pluchea dentex* (50%), *Pterocaulon indet.* (50%), *Sida fibulifera* (50%), *Solanum quadriloculatum* (50%)

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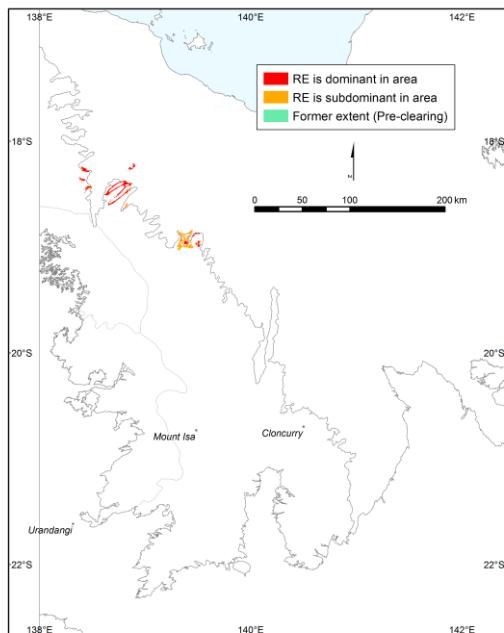
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.2j: Eucalyptus herbertiana and/or Corymbia capricornia low open woodland on metamorphic hills



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 21,821 21,819 99.99%

Species\_recorded: Total: 40; woody: 12; ground: 28; Avg. spp./site: 25.5; std dev.: 0.5, 2 site(s)

Basal area: Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative\_sites: 40409, 40533.

#### Stratum: Emergent

Height avg. = 6.0m, 1 site

Crown cover avg. = 1.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia capricornia* (100, 50%)

Frequent species (cover, frequency): *Corymbia capricornia* (1, 50%)

#### Stratum: Tree 1

Height avg. = 4.3m, range 4-4.5m, 2 sites

Crown cover avg. = 6.5%, range 6.0-7.0%, 2 sites

Dominant species (relative cover, frequency): *Eucalyptus herbertiana* (91, 100%), *Gardenia fucata* (17, 50%), *Corymbia capricornia* (1, 50%)

Frequent species (cover, frequency): *Eucalyptus herbertiana* (6, 100%), *Corymbia capricornia* (50%), *Gardenia fucata* (1, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.5m, range 1-2m, 2 sites****Crown cover avg. = 9.0%, range 2.0-16.0%, 2 sites**

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (67, 50%), *Petalostigma quadriloculare* (41, 50%), *Grevillea dryandri* subsp. *dryandri* (24, 50%), *Grevillea wickhamii* subsp. *apraca* (11, 100%), *Corymbia capricornia* (8, 50%)

Frequent species (cover, frequency): *Eucalyptus herbertiana* (100%), *Grevillea wickhamii* subsp. *apraca* (1, 100%), *Terminalia canescens* (1, 100%), *Acacia hammondii* (50%), *Acacia hyaloneura* (50%), *Acacia laccata* (50%), *Corymbia capricornia* (1, 50%), *Dodonaea barklyana* (50%), *Eucalyptus leucophloia* subsp. *euroa* (1, 50%), *Grevillea dryandri* subsp. *dryandri* (3, 50%), *Petalostigma quadriloculare* (5, 50%)

**Stratum: Shrub 2****Height avg. = 0.8m, 1 site****Crown cover avg. = 8.0%, 1 site**

Dominant species (relative cover, frequency): *Petalostigma quadriloculare* (97, 50%), *Terminalia canescens* (1, 50%), *Acacia laccata* (1, 50%)

Frequent species (cover, frequency): *Acacia laccata* (50%), *Petalostigma quadriloculare* (7, 50%), *Terminalia canescens* (50%)

**Stratum: Ground****Height avg. = 0.3m, range 0.3-0.3m, 2 sites****PFC avg. = 42.0%, range 42-42%, 2 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (72, 100%), *Schizachyrium perplexum* (18, 100%), *Eriachne* sp. (Dugald River B.K.Simon + 3007) (3, 100%), *Mnesithea formosa* (3, 100%), *Acacia galiooides* (2, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Bulbostylis barbata* (100%), *Eriachne* sp. (Dugald River B.K.Simon + 3007) (1, 100%), *Mnesithea formosa* (1, 100%), *Schizachyrium perplexum* (8, 100%), *Triodia pungens* (30, 100%), *Cymbopogon bombycinus* (50%), *Eriachne mucronata* (50%)

FORBS: *Cleome viscosa* (100%), *Triumfetta rupestris* (100%), *Acacia galiooides* (1, 50%), *Bonamia multiflora* (50%), *Buchnera asperata* (50%), *Cajanus* indet. (50%), *Crotalaria medicaginea* (50%), *Euphorbia* indet. (50%), *Gomphrena* indet. (50%), *Heliotropium ballii* (50%), *Indigofera linifolia* (50%), *Kohautia australiensis* (50%), *Ptilotus fusiformis* (50%), *Spermacoce* indet. (50%), *Stemodia lythrifolia* (50%), *Tephrosia* indet. (50%), *Tephrosia* sp. (Magazine Hill P.Jones 365) (50%), *Tephrosia virens* (50%), *Trachymene glandulosa* (50%), *Triumfetta plumigera* (50%), *Zornia muriculata* subsp. *angustata* (50%)

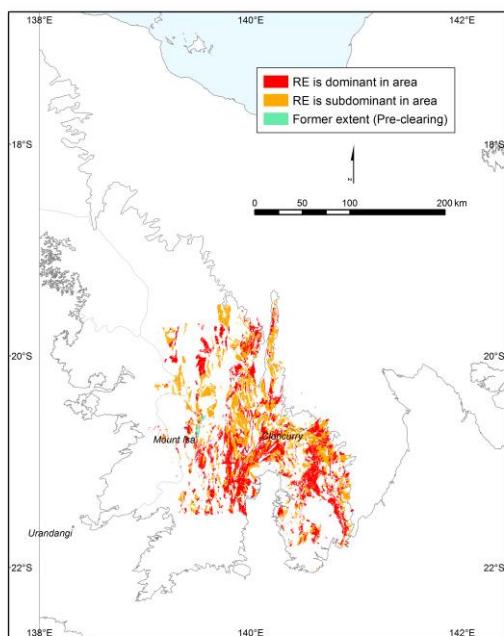
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.11.3a: Eucalyptus leucophylla low open woodland often with *Corymbia terminalis*, *C. aparrerinja* and *Atalaya hemiglaucha* on metamorphosed igneous rocks



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 526,083 521,934 99.21%

Species recorded: Total: 133; woody: 35; ground: 100; Avg. spp./site: 20.0; std dev.: 6.6, 13 site(s)

Basal area: Avg./site: 2.3 m<sup>2</sup>/ha, range: 0.3 - 9 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 10 site(s)

Structural formation: Low open-woodland: 100%, 13 site(s)

Representative sites: 19305, 19317, 19318, 19327, 19332, 19337, 19338, 19375, 19502, 23445, 42157, 42176, 45374.

#### Stratum: Tree 1

Height avg. = 5.3m, range 3.5-7m, 13 sites

Crown cover avg. = 7.7%, range 3.0-19.0%, 13 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (75, 100%), *Corymbia terminalis* (24, 77%), *Atalaya hemiglaucha* (11, 23%)

Frequent species (cover, frequency): *Eucalyptus leucophylla* (5, 100%), *Corymbia terminalis* (3, 77%), *Atalaya hemiglaucha* (1, 23%), *Eucalyptus leucophloia* subsp. *euroa* (1, 15%), *Corymbia aparrerinja* (1, 8%), *Ventilago viminalis* (1, 8%)

#### Stratum: Tree 2

Height avg. = 3.0m, range 2-4m, 2 sites

Crown cover avg. = 0.0%, range 0.0-0.0%, 2 sites

Frequent species (cover, frequency): *Grevillea striata* (8%), *Hakea chordophylla* (8%), *Terminalia aridicola* (8%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 2.2m, range 0.8-5m, 13 sites****Crown cover avg. = 13.7%, range 0.0-60.0%, 13 sites***Dominant species (relative cover, frequency): Acacia chisholmii (73, 77%), Gossypium australe (6, 23%)*

*Frequent species (cover, frequency): Acacia chisholmii (16, 77%), Gossypium australe (23%), Carissa lanceolata (1, 15%), Eremophila latrobei (15%), Eremophila longifolia (15%), Hakea lorea subsp. lorea (15%), Santalum lanceolatum (15%), Senna artemisioides subsp. helmsii (15%), Senna glutinosa subsp. pruinosa (15%), Acacia adsurgens (8%), Acacia lysiphloia (3, 8%), Acacia melleodora (8%), Acacia monticola (3, 8%), Acacia sericophylla (1, 8%), Acacia tenuissima (8%), Atalaya hemiglaucha (8%), Cajanus acutifolius (1, 8%), Cucumis argenteus (8%), Denhamia cunninghamii (1, 8%), Denhamia oleaster (8%), Grevillea mimosoides (8%), Parsonsia indet. (8%), Senna artemisioides subsp. oligophylla (8%), Senna glutinosa subsp. glutinosa (8%), Senna notabilis (10, 8%), Tephrosia virens (8%)*

**Stratum: Shrub 2****Height avg. = 1.5m, range 1.5-1.5m, 2 sites****Crown cover avg. = 1.0%, range 1.0-1.0%, 2 sites***Frequent species (cover, frequency): Gossypium australe (1, 8%), Ptilotus indet. (1, 8%)***Stratum: Ground****Height avg. = 0.6m, range 0.4-0.8m, 10 sites****PFC avg. = 49.5%, range 18-91%, 13 sites***Dominant species (relative cover, frequency): Triodia pungens (81, 77%), Enneapogon polypyllus (9, 69%), Heteropogon contortus (7, 38%), Aristida holathera var. holathera (4, 23%), Themeda triandra (3, 31%)*

*Frequent species (cover, frequency): GRAMINOIDs: Triodia pungens (42, 77%), Enneapogon polypyllus (2, 69%), Heteropogon contortus (3, 38%), Themeda triandra (1, 31%), Aristida holathera var. holathera (2, 23%), Aristida pruinosa (1, 23%), Enneapogon lindleyanus (23%), Aristida contorta (4, 15%), Bulbostylis barbata (15%), Cenchrus ciliaris\* (11, 15%), Cenchrus setigerus\* (1, 15%), Eulalia aurea (1, 15%), Triodia longiceps (30, 15%), Aristida inaequiglumis (1, 8%), Aristida latifolia (1, 8%), Cymbopogon ambiguus (8%), Cymbopogon obtectus (1, 8%), Digitaria ciliaris\* (1, 8%), Digitaria indet. (8%), Enneapogon cylindricus (1, 8%), Eragrostis cumingii (8%), Eragrostis desertorum (8%), Eriachne mucronata (2, 8%), Eriachne mucronata forma (Alpha C.E.Hubbard 7882) (8%), Panicum decompositum var. decompositum (1, 8%), Paraneurachne muelleri (8%), Paspalidium constrictum (8%), Perotis rara (1, 8%), Schizachyrium fragile (8%), Schizachyrium perplexum (8%), Setaria indet. (8%), Sporobolus actinocladus (8%), Sporobolus australasicus (8%), Triodia brizoides (60, 8%)*

*FORBS: Evolvulus alsinoides var. villosalyx (46%), Heliotropium indet. (38%), Indigofera linifolia (38%), Sida fibulifera (38%), Solanum quadriloculatum (38%), Heliotropium tenuifolium (31%), Indigofera linnaei (31%), Cleome viscosa (23%), Crotalaria novae-hollandiae (23%), Hibiscus sturtii (23%), Salsola australis (23%), Scaevola ovalifolia (1, 23%), Abutilon hannii (15%), Heliotropium ballii (15%), Melhania oblongifolia (15%), Pterocaulon serrulatum (15%), Sida rohlenae subsp. rohlenae (15%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (1, 15%), Solanum succosum (15%), Streptoglossa decurrents (15%), Abutilon indet. (8%), Abutilon otocarpum (8%), Acacia chippendalei (1, 8%), Achyranthes aspera (1, 8%), Aerva javanica\* (8%), Boerhavia pubescens (8%), Boerhavia repleta (8%), Buchnera ramosissima (8%), Cassytha filiformis (2, 8%), Corchorus sidoides (8%), Crotalaria indet. (1, 8%), Crotalaria medicaginea (8%), Eremophila longifolia (8%), Euphorbia australis (8%), Euphorbia drummondii (8%), Euphorbia mitchelliana var. filipes (8%), Euphorbia operta (8%), Euphorbia tannensis (8%), Gossypium australe (8%), Hibiscus brachychlaenus (8%), Hibiscus sturtii var. campylochlamys (8%), Hybanthus aurantiacus (8%), Indigofera colutea (8%), Indigofera hirsuta (8%), Malvastrum americanum (1, 8%), Polycarphaea corymbosa var. corymbosa (8%), Portulaca pilosa\* (8%), Pterocaulon indet. (8%), Ptilotus fusiformis (8%), Ptilotus nobilis subsp. nobilis (8%), Ptilotus obovatus (1, 8%), Ptilotus schwartzii (1, 8%), Rhynchosia minima var. australis (8%), Sclerolaena cornishiana (8%), Solanum echinatum (8%), Spermacoce indet. (8%), Stemodia indet. (8%), Tephrosia brachyodon (8%), Tephrosia indet. (8%), Tephrosia phaeosperma var. (Westmoreland S.Melville 967) (8%), Tinospora smilacina (8%), Trichodesma zeylanicum (1, 8%), Vigna indet. (8%), Zornia indet. (8%), Zornia muriculata subsp. angustata (8%)*

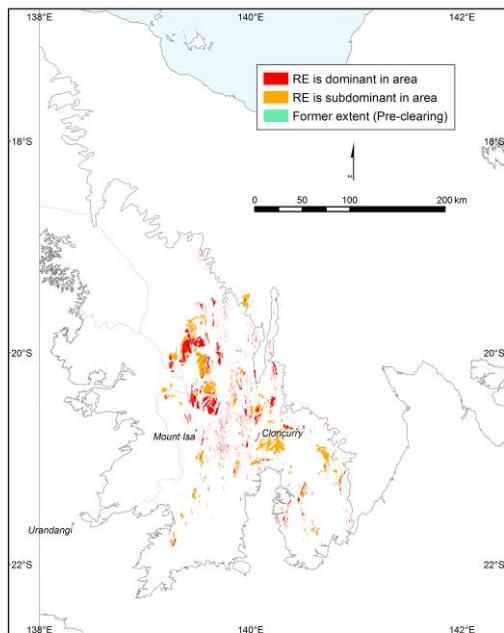
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.11.3b: *Corymbia terminalis* and/or *Eucalyptus leucophylla* +/- *Corymbia aparrerinja* low open woodland on metamorphosed igneous landscapes



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 136,183 136,028 99.89%

Species\_recorded: Total: 128; woody: 25; ground: 111; Avg. spp./site: 24.8; std dev.: 5.6, 12 site(s)

Basal area: Avg./site: 3.2 m<sup>2</sup>/ha, range: 0.8 - 11 m<sup>2</sup>/ha, std. deviation: 3 m<sup>2</sup>/ha, 11 site(s)

Structural formation: Low open-woodland: 75%; woodland: 8%; open-scrub: 8%; closed-scrub: 8%, 12 site(s)

Representative\_sites: 19309, 19320, 19321, 19322, 19323, 19334, 19401, 19423, 23419, 23420, 23444, 42055.

#### Stratum: Tree 1

Height avg. = 7.0m, range 5-9m, 11 sites

Crown cover avg. = 7.5%, range 2.0-29.0%, 12 sites

Dominant species (relative cover, frequency): *Corymbia terminalis* (67, 100%), *Eucalyptus leucophylla* (36, 58%), *Eucalyptus leucophloia* subsp. *euroa* (22, 33%)

Frequent species (cover, frequency): *Corymbia terminalis* (4, 100%), *Eucalyptus leucophylla* (3, 58%), *Eucalyptus leucophloia* subsp. *euroa* (3, 33%), *Atalaya hemiglaaua* (3, 8%), *Corymbia aparrerinja* (1, 8%), *Hakea lorea* subsp. *loreia* (8%)

#### Stratum: Tree 2

Height avg. = 4.3m, range 4-4.5m, 2 sites

Crown cover avg. = 1.5%, range 1.0-2.0%, 2 sites

Frequent species (cover, frequency): *Eucalyptus leucophylla* (2, 17%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 2.0m, range 1.2-2.5m, 11 sites****Crown cover avg. = 31.1%, range 0.0-85.0%, 12 sites**

Dominant species (relative cover, frequency): *Acacia chisholmii* (82, 92%), *Atalaya hemiglaucha* (46, 25%), *Carissa lanceolata* (16, 33%)

Frequent species (cover, frequency): *Acacia chisholmii* (32, 92%), *Carissa lanceolata* (3, 33%), *Atalaya hemiglaucha* (1, 25%), *Acacia hemignosta* (17%), *Acacia lysiphloia* (1, 17%), *Denhamia cunninghamii* (1, 17%), *Eremophila longifolia* (1, 17%), *Eucalyptus leucophylla* (1, 17%), *Gossypium australe* (17%), *Abutilon leucopetalum* (8%), *Acacia cambagei* (8%), *Crotalaria novae-hollandiae* (8%), *Cucumis argenteus* (8%), *Eremophila latrobei* (1, 8%), *Flueggea virosa* subsp. *melanthesoides* (8%), *Hakea lorea* subsp. *loreia* (1, 8%), *Indigofera linnaei* (8%), *Malvastrum americanum* var. *americanum*\* (8%), *Psydrax indet.* (8%), *Solanum quadriloculatum* (8%), *Terminalia aridicola* subsp. *aridicola* (8%)

**Stratum: Shrub 2****Height avg. = 0.9m, range 0.8-1m, 2 sites****Crown cover avg. = 3.0%, range 0.0-6.0%, 2 sites**

Frequent species (cover, frequency): *Gossypium australe* (17%), *Atalaya hemiglaucha* (4, 8%), *Senna artemisioides* subsp. *oligophylla* (2, 8%)

**Stratum: Ground****Height avg. = 0.6m, range 0.2-1.2m, 11 sites****PFC avg. = 63.3%, range 35-92%, 12 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (57, 42%), *Triodia longiceps* (44, 42%), *Eriachne obtusa* (30, 33%), *Enneapogon polyphyllus* (19, 67%), *Aristida longicollis* (8, 42%)

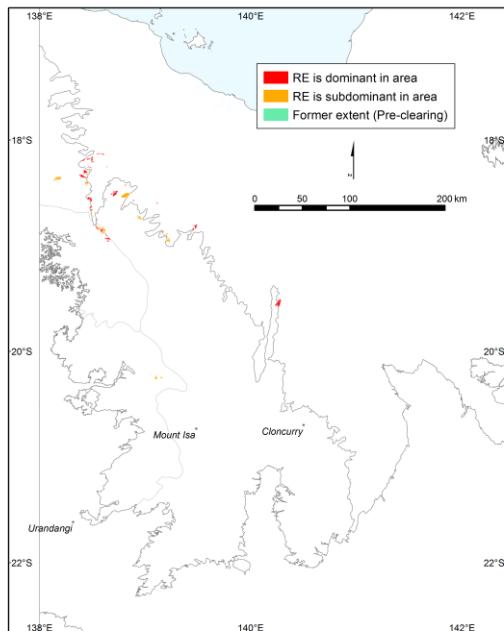
Frequent species (cover, frequency): GRAMINOIDs: *Enneapogon polyphyllus* (12, 67%), *Themeda triandra* (1, 58%), *Heteropogon contortus* (4, 50%), *Aristida longicollis* (4, 42%), *Aristida pruinosa* (1, 42%), *Triodia longiceps* (31, 42%), *Triodia pungens* (29, 42%), *Cymbopogon bombycinus* (33%), *Eriachne obtusa* (24, 33%), *Aristida inaequiglumis* (1, 25%), *Bulbostylis barbata* (25%), *Eriachne mucronata* (25%), *Eulalia aurea* (25%), *Mnesithea formosa* (25%), *Sehima nervosum* (1, 25%), *Bothriochloa erwartiana* (2, 17%), *Brachyachne convergens* (1, 17%), *Cenchrus pennisetiformis*\* (33, 17%), *Dactyloctenium radulans* (1, 17%), *Enneapogon avenaceus* (1, 17%), *Enneapogon lindleyanus* (1, 17%), *Paraneurachne muelleri* (2, 17%), *Sporobolus actinocladus* (1, 17%), *Aristida contorta* (35, 8%), *Aristida indet.* (15, 8%), *Bothriochloa indet.* (5, 8%), *Cenchrus ciliaris*\* (1, 8%), *Cenchrus setigerus*\* (8%), *Chloris ventricosa* (8%), *Enneapogon cylindricus* (8%), *Enneapogon robustissimus* (1, 8%), *Eragrostis indet.* (8%), *Eragrostis tenuifolia*\* (8%), *Eriachne indet.* (8%), *Eriachne pulchella* (10, 8%), *Fimbristylis indet.* (8%), *Perotis rara* (8%), *Sporobolus australasicus* (20, 8%), *Tragus australianus* (1, 8%), *Triodia molesta* (5, 8%)  
FORBS: *Solanum quadriloculatum* (67%), *Indigofera linifolia* (42%), *Sida fibulifera* (42%), *Aerva javanica*\* (2, 33%), *Cleome viscosa* (33%), *Crotalaria novae-hollandiae* (33%), *Heliotropium indet.* (1, 33%), *Salsola australis* (33%), *Achyranthes aspera* (25%), *Boerhavia indet.* (25%), *Corchorus sidoides* (1, 25%), *Evolvulus alsinoides* var. *vilosicalyx* (25%), *Gossypium australe* (25%), *Melhania oblongifolia* (25%), *Senna planitiicola* (25%), *Abutilon hannii* (17%), *Abutilon lepidum* (17%), *Atalaya hemiglaucha* (1, 17%), *Bonamia media* (17%), *Cucumis argenteus* (17%), *Euphorbia drummondii* (17%), *Heliotropium ballii* (17%), *Portulaca oleracea*\* (10, 17%), *Pterocaulon serrulatum* (17%), *Scaevola ovalifolia* (1, 17%), *Solanum echinatum* (17%), *Abutilon arenarium* (8%), *Amaranthus cochleitepalus* (8%), *Boerhavia pubescens* (8%), *Bonamia linearis* (8%), *Calandrinia indet.* (8%), *Carissa lanceolata* (8%), *Eremophila latrobei* (8%), *Eremophila longifolia* (8%), *Euphorbia biconvexa* (8%), *Euphorbia hirta*\* (8%), *Euphorbia indet.* (8%), *Euphorbia mitchelliana* (8%), *Euphorbia mitchelliana* var. *filipes* (8%), *Euphorbia tannensis* (8%), *Galactia tenuiflora* forma *sericea* (8%), *Gomphrena arida* (8%), *Gomphrena lanata* (8%), *Heliotropium aequoreum* (8%), *Heliotropium tenuifolium* (8%), *Indigofera hirsuta* (8%), *Indigofera trita* subsp. *trita* (8%), *Malvastrum americanum* (8%), *Marsdenia cymulosa* (8%), *Mesosphaerum suaveolens*\* (8%), *Ocimum indet.* (8%), *Phyllanthus maderaspatensis* (8%), *Pimelea indet.* (8%), *Polycarpaea corymbosa* (8%), *Polymeria ambigua* (8%), *Pterocaulon indet.* (8%), *Ptilotus fusiformis* (8%), *Ptilotus gaudichaudii* subsp. *parviflorus* (8%), *Ptilotus obovatus* (8%), *Ptilotus schwartzii* (8%), *Rhynchosia minima* (8%), *Sida indet.* (8%), *Sida rohlenae* subsp. *rohlenae* (8%), *Sida* sp. (Musselbrook M.B.Thomas+ MRS437) (8%), *Swainsona flavicarinata* (8%), *Tephrosia brachyodon* var. *longifolia* (8%), *Trianthema triquetra* (8%), *Trichodesma zeylanicum* (8%), *Trichodesma zeylanicum* var. *zeylanicum* (8%), *Waltheria indica* (8%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.11.4: Eucalyptus pruinosa low open woodland on fine textured metamorphics



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 11,061 11,059 99.98%

Species recorded: Total: 68; woody: 8; ground: 62; Avg. spp./site: 26.0; std dev.: 2.4, 3 site(s)

Basal area: Avg./site: 1.3 m<sup>2</sup>/ha, range: 0.3 - 3 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 3 site(s)

Structural formation: Low open-woodland: 100%, 3 site(s)

Representative sites: 24257, 40384, 42798.

#### Stratum: Tree 1

Height avg. = 4.0m, range 3-5m, 3 sites

Crown cover avg. = 4.4%, range 2.0-6.1%, 3 sites

Dominant species (relative cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (97, 100%), *Corymbia terminalis* (5, 33%), *Eucalyptus leucophloia* subsp. *euroa* (2, 33%), *Corymbia grandifolia* subsp. *grandifolia* (2, 33%)

Frequent species (cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (8, 100%), *Corymbia grandifolia* subsp. *grandifolia* (33%), *Corymbia terminalis* (1, 33%), *Eucalyptus leucophloia* subsp. *euroa* (33%)

#### Stratum: Shrub 1

Height avg. = 1.1m, range 0.6-1.5m, 2 sites

Crown cover avg. = 1.0%, range 0.0-2.0%, 2 sites

Dominant species (relative cover, frequency): *Ventilago viminalis* (100, 33%), *Eucalyptus pruinosa* subsp. *pruinosa* (83, 33%), *Vachellia farnesiana*\* (4, 33%), *Gossypium australe* (4, 33%), *Corymbia grandifolia* subsp. *grandifolia* (4, 33%)

Frequent species (cover, frequency): *Acacia gonoclada* (33%), *Corymbia grandifolia* subsp. *grandifolia* (33%), *Eucalyptus pruinosa* subsp. *pruinosa* (2, 33%), *Gossypium australe* (33%), *Vachellia farnesiana*\* (33%), *Ventilago viminalis* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.3m, range 0.3-0.4m, 3 sites****PFC avg. = 50.0%, range 33-62%, 3 sites**

Dominant species (relative cover, frequency): *Cenchrus pennisetiformis\** (46, 33%), *Dichanthium fecundum* (38, 33%), *Chrysopogon indet.* (25, 33%), *Triodia pungens* (22, 67%), *Aristida perniciosa* (19, 33%)

Frequent species (cover, frequency): GRAMINOIDs: *Schizachyrium fragile* (1, 100%), *Aristida hygrometrica* (1, 67%), *Aristida pruinosa* (1, 67%), *Enneapogon polypylorus* (1, 67%), *Eulalia aurea* (4, 67%), *Sporobolus australasicus* (6, 67%), *Triodia pungens* (12, 67%), *Aristida contorta* (10, 33%), *Aristida ingrata* (1, 33%), *Aristida latifolia* (33%), *Aristida perniciosa* (12, 33%), *Cenchrus pennisetiformis\** (16, 33%), *Chrysopogon indet.* (16, 33%), *Cymbopogon obtectus* (33%), *Dactyloctenium radulans* (33%), *Dichanthium fecundum* (24, 33%), *Digitaria brownii* (1, 33%), *Enneapogon purpurascens* (33%), *Eragrostis cumingii* (2, 33%), *Eragrostis exigua* (33%), *Eragrostis tenellula* (33%), *Eriachne armitii* (3, 33%), *Eriachne indet.* (33%), *Fimbristylis dichotoma* (4, 33%), *Fimbristylis indet.* (2, 33%), *Heteropogon contortus* (33%), *Mnesithea formosa* (33%), *Panicum decompositum* (33%), *Themeda triandra* (2, 33%)

FORBS: *Abutilon hannii* (33%), *Asteraceae indet.* (33%), *Buchnera ramosissima* (33%), *Cajanus acutifolius* (33%), *Cleome viscosa* (33%), *Crotalaria medicaginea* (33%), *Crotalaria novae-hollandiae* (33%), *Cullen plumosum* (33%), *Evolvulus alsinoides* var. *decumbens* (33%), *Gomphrena canescens* subsp. *canescens* (33%), *Gossypium australe* (33%), *Heliotropium cunninghamii* (33%), *Hybanthus aurantiacus* (33%), *Indigofera colutea* (1, 33%), *Indigofera linnaei* (33%), *Ipomoea coptica* (1, 33%), *Kohautia australiensis* (33%), *Neptunia dimorphantha* (33%), *Oldenlandia indet.* (33%), *Polycarpaea corymbosa* (33%), *Polycarpaea spirostylis* subsp. *spirostylis* (1, 33%), *Portulaca pilosa\** (33%), *Pterocaulon serrulatum* var. *velutinum* (33%), *Pterocaulon sphacelatum* (33%), *Senna planitiicola* (33%), *Sesbania cannabina* (33%), *Sida fibulifera* (33%), *Sida hackettiana* (33%), *Solanum quadrilocularum* (33%), *Streptoglossa odora* (2, 33%), *Tephrosia brachyodon* (33%), *Vigna radiata* var. *sublobata* (33%), *Zornia muriculata* (33%)

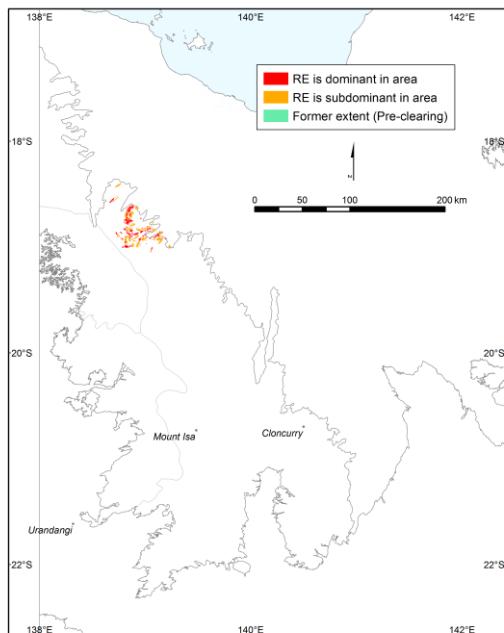
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.11.6: *Corymbia terminalis* and *Lysiphyllo cunnighamii* low open woodland on folded limestones



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 15,827 15,827 100.00%

Species recorded: Total: 29; woody: 11; ground: 19; Avg. spp./site: 29.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 2.0 m<sup>2</sup>/ha, range: 2.0 - 2 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative sites: 40411.

#### Stratum: Tree 1

Height avg. = 7.0m, 1 site

Crown cover avg. = 13.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia terminalis* (62, 100%), *Lysiphyllo cunnighamii* (38, 100%)

Frequent species (cover, frequency): *Corymbia terminalis* (8, 100%), *Lysiphyllo cunnighamii* (5, 100%)

#### Stratum: Tree 2

Height avg. = 3.5m, 1 site

Crown cover avg. = 2.0%, 1 site

Dominant species (relative cover, frequency): *Lysiphyllo cunnighamii* (42, 100%), *Hakea arborescens* (42, 100%), *Terminalia canescens* (4, 100%), *Terminalia aridicola* (4, 100%), *Dolichandrone heterophylla* (4, 100%)

Frequent species (cover, frequency): *Atalaya hemiglaauca* (100%), *Dolichandrone heterophylla* (100%), *Hakea arborescens* (1, 100%), *Lysiphyllo cunnighamii* (1, 100%), *Terminalia aridicola* (100%), *Terminalia canescens* (100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 2.0m, 1 site****Crown cover avg. = 7.0%, 1 site**

Dominant species (relative cover, frequency): *Hakea arborescens* (96, 100%), *Flueggea virosa* subsp. *melanthesoides* (1, 100%), *Corymbia terminalis* (1, 100%), *Atalaya hemiglauca* (1, 100%)

Frequent species (cover, frequency): *Atalaya hemiglauca* (100%), *Corymbia terminalis* (100%), *Flueggea virosa* subsp. *melanthesoides* (100%), *Hakea arborescens* (7, 100%)

**Stratum: Shrub 2****Height avg. = 0.9m, 1 site****Crown cover avg. = 15.0%, 1 site**

Dominant species (relative cover, frequency): *Lysiphyllo cunnighamii* (52, 100%), *Hakea arborescens* (32, 100%), *Flueggea virosa* subsp. *melanthesoides* (6, 100%), *Atalaya hemiglauca* (6, 100%), *Dolichandrone heterophylla* (1, 100%)

Frequent species (cover, frequency): *Atalaya hemiglauca* (1, 100%), *Buchnera asperata* (100%), *Carissa lanceolata* (100%), *Corymbia terminalis* (100%), *Denhamia cunnighamii* (100%), *Dolichandrone heterophylla* (100%), *Flueggea virosa* subsp. *melanthesoides* (1, 100%), *Hakea arborescens* (5, 100%), *Lysiphyllo cunnighamii* (8, 100%)

**Stratum: Ground****Height avg. = 0.3m, 1 site****PFC avg. = 62.0%, 1 site**

Dominant species (relative cover, frequency): *Enneapogon lindleyanus* (44, 100%), *Enneapogon polyphyllus* (35, 100%), *Enneapogon eremophilus* (9, 100%), *Mnesithea formosa* (5, 100%), *Triodia pungens* (3, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Enneapogon eremophilus* (5, 100%), *Enneapogon lindleyanus* (25, 100%),

*Enneapogon polyphyllus* (20, 100%), *Mnesithea formosa* (3, 100%), *Sporobolus australasicus* (100%), *Triodia pungens* (2, 100%)

FORBS: *Buchnera asperata* (100%), *Corchorus indet.* (100%), *Glycine tomentella* (100%), *Gomphrena lanata* (100%),

*Heliotropium tenuifolium* (100%), *Hibiscus pentaphyllus* (100%), *Phyllanthus fuernrohrii* (100%), *Polymeria indet.* (100%),

*Ptilotus fusiformis* (100%), *Sida fibulifera* (100%), *Spermacoce auriculata* (1, 100%), *Tephrosia eriocarpa* (100%), *Waltheria indica* (100%)

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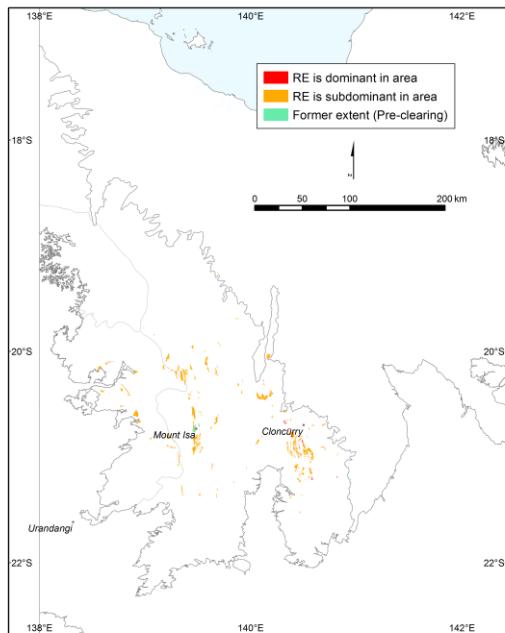
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.7: *Acacia cambagei* low woodland on metamorphic hills



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 8,553      8,410      98.33%

**Species recorded:** Total: 61; woody: 12; ground: 51; Avg. spp./site: 19.8; std dev.: 4.3, 4 site(s)

**Basal area:** Avg./site: 11.9 m<sup>2</sup>/ha, range: 5.0 - 19 m<sup>2</sup>/ha, std. deviation: 5 m<sup>2</sup>/ha, 4 site(s)

**Structural formation:** Low woodland: 50%; low open-woodland: 25%; low open-forest: 25%, 4 site(s)

**Representative sites:** 19324, 19328, 19491, 45457.

#### Stratum: Tree 1

**Height avg. = 7.4m, range 5-9m, 4 sites**

**Crown cover avg. = 42.3%, range 16.0-71.0%, 4 sites**

*Dominant species (relative cover, frequency):* *Acacia cambagei* (90, 100%), *Eucalyptus leucophloia* subsp. *euroa* (19, 50%)

*Frequent species (cover, frequency):* *Acacia cambagei* (41, 100%), *Eucalyptus leucophloia* subsp. *euroa* (4, 50%), *Amyema quandang* var. *quandang* (25%), *Atalaya hemiglaucha* (25%)

#### Stratum: Shrub 1

**Height avg. = 1.9m, range 1.2-3.5m, 4 sites**

**Crown cover avg. = 7.5%, range 3.0-12.0%, 4 sites**

*Dominant species (relative cover, frequency):* *Eremophila latrobei* subsp. *latrobei* (100, 25%), *Eremophila mitchellii* (96, 25%), *Acacia cambagei* (79, 50%), *Dodonaea stenophylla* (33, 25%), *Carissa lanceolata* (3, 25%)

*Frequent species (cover, frequency):* *Acacia cambagei* (6, 50%), *Atalaya hemiglaucha* (50%), *Capparis lasiantha* (25%), *Carissa lanceolata* (25%), *Dodonaea stenophylla* (4, 25%), *Eremophila latrobei* subsp. *latrobei* (10, 25%), *Eremophila longifolia* (25%), *Eremophila mitchellii* (5, 25%), *Terminalia aridicola* (25%)

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 1.5m, 1 site****Crown cover avg. = 4.0%, 1 site**

*Dominant species (relative cover, frequency): Dodonaea indet. (42, 50%), Eremophila mitchellii (14, 25%), Eremophila longifolia (1, 25%), Atalaya hemiglaucha (1, 25%)*

*Frequent species (cover, frequency): Dodonaea indet. (3, 50%), Atalaya hemiglaucha (25%), Eremophila longifolia (25%), Eremophila mitchellii (1, 25%)*

**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.5m, 4 sites****PFC avg. = 15.3%, range 4-48%, 4 sites**

*Dominant species (relative cover, frequency): Ptilotus obovatus (44, 25%), Eriachne mucronata (31, 50%), Triodia molesta (30, 75%), Cenchrus pennisetiformis\* (19, 50%), Triodia longiceps (18, 50%)*

*Frequent species (cover, frequency): GRAMINOIDs: Enneapogon lindleyanus (1, 75%), Triodia molesta (4, 75%), Cenchrus pennisetiformis\* (3, 50%), Eriachne mucronata (15, 50%), Triodia longiceps (1, 50%), Aristida contorta (25%), Aristida longicollis (1, 25%), Aristida pruinosa (25%), Eragrostis eriopoda (25%), Eragrostis leptostachya (1, 25%), Paspalidium constrictum (1, 25%), Paspalidium rarum (25%), Sporobolus caroli (25%), Urochloa indet. (25%)*

*FORBS: Abutilon hannii (50%), Heliotropium tenuifolium (50%), Salsola australis (50%), Abutilon indet. (25%), Achyranthes aspera (25%), Aerva javanica\* (25%), Alternanthera indet. (25%), Alternanthera nana (25%), Atalaya hemiglaucha (25%), Cassytha capillaris (25%), Cleome viscosa (4, 25%), Cynanchum viminale subsp. australe (25%), Enchyalaena tomentosa var. tomentosa (25%), Eremophila latrobei (25%), Evolvulus alsinoides var. decumbens (25%), Gossypium australe (25%), Heliotropium ballii (25%), Heliotropium frohlichii (25%), Indigofera colutea (25%), Indigofera pratensis (25%), Malvastrum americanum (25%), Melhania oblongifolia (25%), Pterocaulon serrulatum (25%), Pterocaulon serrulatum var. velutinum (25%), Ptilotus obovatus (4, 25%), Sclerolaena birchii (25%), Senna artemisioides subsp. oligophylla (25%), Senna notabilis (25%), Senna planitiicola (25%), Sida rohlenae subsp. rohlenae (25%), Sida sp. (Musselbrook M.B.Thomas + MRS437) (25%), Solanum echinatum (25%), Solanum indet. (25%), Solanum quadriloculatum (25%), Terminalia aridicola (25%), Trichodesma zeylanicum (25%)*

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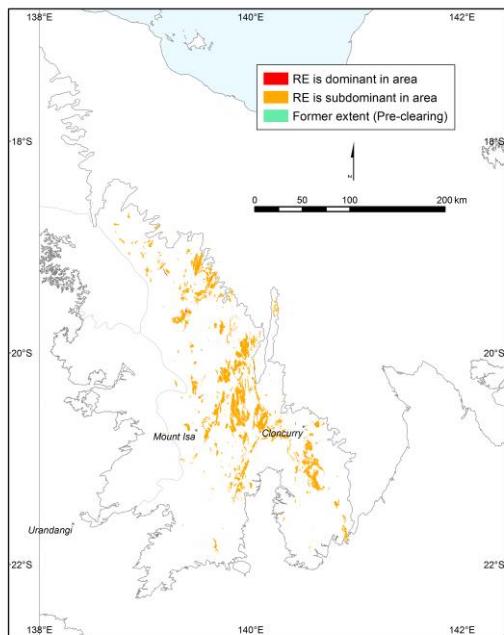
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.11.8: Terminalia aridicola and/or Corymbia aspera low open woodland to low woodland, usually with vine-scrub species, on rock outcrops



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 29,955 29,881 99.75%

Species recorded: Total: 96; woody: 20; ground: 76; Avg. spp./site: 30.0; std dev.: 8.5, 4 site(s)

Basal area: Avg./site: 2.8 m<sup>2</sup>/ha, range: 0.5 - 5 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 4 site(s)

Structural formation: Low open-woodland: 75%; low woodland: 25%, 4 site(s)

Representative sites: 19303, 19396, 19410, 19443.

#### Stratum: Emergent

Height avg. = 7.0m, 1 site

Crown cover avg. = 2.0%, 1 site

Dominant species (relative cover, frequency): *Brachychiton collinus* (100, 25%)

Frequent species (cover, frequency): *Brachychiton collinus* (2, 25%)

#### Stratum: Tree 1

Height avg. = 2.8m, range 1.8-3.5m, 4 sites

Crown cover avg. = 14.8%, range 4.0-30.0%, 4 sites

Dominant species (relative cover, frequency): *Terminalia aridicola* (61, 75%), *Corymbia aspera* (57, 50%), *Alphitonia excelsa* (26, 50%), *Ficus brachypoda* (25, 25%), *Eucalyptus leucophloia* subsp. *euroa* (13, 50%)

Frequent species (cover, frequency): *Terminalia aridicola* (11, 75%), *Alphitonia excelsa* (3, 50%), *Corymbia aspera* (9, 50%), *Eucalyptus leucophloia* subsp. *euroa* (2, 50%), *Brachychiton collinus* (25%), *Ficus brachypoda* (1, 25%), *Ficus rubiginosa* (25%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.9m, range 1.2-2.5m, 4 sites****Crown cover avg. = 18.5%, range 1.0-60.0%, 4 sites**

*Dominant species (relative cover, frequency): Dodonaea viscosa subsp. angustissima (100, 25%), Grevillea heliosperma (97, 25%), Calytrix brownii (87, 25%), Acacia monticola (54, 50%), Alphitonia indet. (3, 25%)*

*Frequent species (cover, frequency): Acacia monticola (31, 50%), Acacia orthocarpa (25%), Alphitonia indet. (25%), Calytrix brownii (10, 25%), Dodonaea viscosa subsp. angustissima (1, 25%), Euphorbia indet. (25%), Euphorbiaceae indet. (25%), Grevillea heliosperma (3, 25%), Lysiana spathulata subsp. spathulata (25%), Santalum lanceolatum (25%)*

**Stratum: Shrub 2****Height avg. = 1.2m, 1 site****Crown cover avg. = 0.0%, 1 site**

*Dominant species (relative cover, frequency): Flueggea virosa subsp. melanthesoides (25, 25%), Eremophila longifolia (25, 25%), Calytrix brownii (25, 25%), Acacia tenuissima (25, 25%)*

*Frequent species (cover, frequency): Acacia tenuissima (25%), Calytrix brownii (25%), Eremophila longifolia (25%), Flueggea virosa subsp. melanthesoides (25%)*

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.6m, 3 sites****PFC avg. = 34.5%, range 4-68%, 4 sites**

*Dominant species (relative cover, frequency): Triodia molesta (45, 25%), Cenchrus pennisetiformis\* (27, 25%), Aristida exserta (27, 50%), Eriachne ciliata (18, 25%), Triodia mitchellii (18, 25%)*

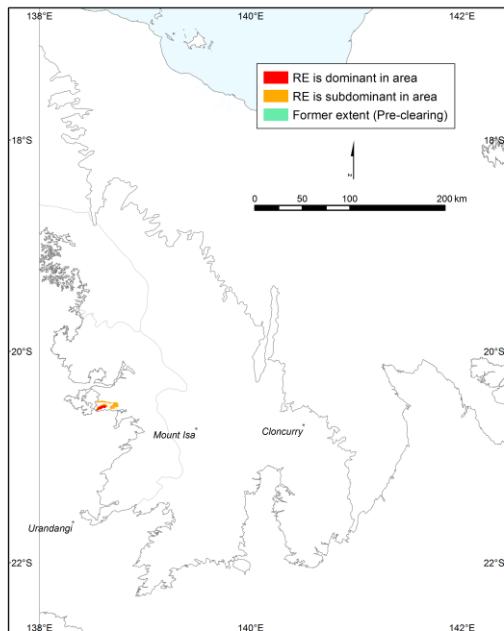
*Frequent species (cover, frequency): GRAMINOIDs: Enneapogon lindleyanus (8, 75%), Aristida exserta (2, 50%), Bulbostylis barbata (50%), Digitaria brownii (13, 50%), Eriachne mucronata (10, 50%), Heteropogon contortus (9, 50%), Paspalidium rarum (3, 50%), Aristida longicollis (3, 25%), Aristida pruinosa (2, 25%), Cenchrus pennisetiformis\* (20, 25%), Cymbopogon ambiguus (25%), Cymbopogon bombycinus (25%), Cyperus cunninghamii subsp. cunninghamii (25%), Cyperus microcephalus subsp. microcephalus (25%), Cyperus sexflorus (25%), Digitaria ctenantha (25%), Digitaria gibbosa (25%), Enneapogon indet. (25%), Enneapogon polypyllus (1, 25%), Eragrostis tenuifolia\* (1, 25%), Eriachne ciliata (1, 25%), Eriachne mucronata forma (Burnham R.W.Purdie 1370) (1, 25%), Eriachne obtusa (25%), Mnesithea formosa (25%), Panicum buncei (25%), Sehima nervosum (1, 25%), Setaria indet. (5, 25%), Triodia bitextura (25%), Triodia mitchellii (2, 25%), Triodia molesta (5, 25%)  
FORBS: Boerhavia indet. (75%), Cleome viscosa (1, 75%), Achyranthes aspera (50%), Solanum indet. (50%), Triumfetta indet. (50%), Waltheria indica (50%), Abutilon indet. (25%), Abutilon oxycarpum (25%), Alternanthera indet. (25%), Alternanthera nana (25%), Bonamia indet. (25%), Bonamia pannosa (25%), Cheilanthes brownii (25%), Cheilanthes indet. (25%), Corchorus sidoides (25%), Crotalaria medicaginea (25%), Dicliptera armata (25%), Euphorbia crassimarginata (25%), Evolvulus alsinoides var. decumbens (25%), Evolvulus alsinoides var. villosicalyx (25%), Galactia tenuiflora var. lucida (25%), Heliotropium haesum (3, 25%), Heliotropium indet. (25%), Hibiscus sturtii (25%), Hibiscus sturtii var. sturtii (25%), Indigofera colutea (25%), Indigofera hirsuta (25%), Indigofera pratensis (25%), Indigofera trita subsp. trita (25%), Ludwigia perennis (25%), Melhania oblongifolia (25%), Neptunia indet. (25%), Pavetta rupicola (25%), Polycarpaea indet. (25%), Polycarpaea spirostylis (25%), Psydrax attenuata (25%), Psydrax indet. (25%), Rostellularia indet. (25%), Sida sp. (Jericho E.J.Thompson+ JER117) (25%), Solanum quadriloculatum (25%), Solanum senticosum (25%), Stemodia lythrifolia (25%), Tephrosia indet. (3, 25%), Tephrosia supina (25%), Trichodesma zeylanicum (25%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.11.9: Eucalyptus odontocarpa open shrubland on siliceous metamorphics



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 3,962      3,962      100.00%

**Species recorded:** Total: 4; woody: 3; ground: 1; Avg. spp./site: 4.0; std dev.: 0.0, 1 site(s)

**Basal area:** 0

**Structural formation:** Open-shrubland: 100%, 1 site(s)

**Representative sites:** 19420.

#### Stratum: Shrub 1

**Height avg. = 1.7m, 1 site**

**Crown cover avg. = 7.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus odontocarpa (71, 100%), Grevillea wickhamii subsp. aprica (14, 100%), Acacia retinenea subsp. retinenea (14, 100%)*

*Frequent species (cover, frequency): Acacia retinenea subsp. retinenea (1, 100%), Eucalyptus odontocarpa (5, 100%), Grevillea wickhamii subsp. aprica (1, 100%)*

#### Stratum: Ground

**Height avg. = 0.7m, 1 site**

**PFC avg. = 30.0%, 1 site**

*Dominant species (relative cover, frequency): Triodia pungens (100, 100%)*

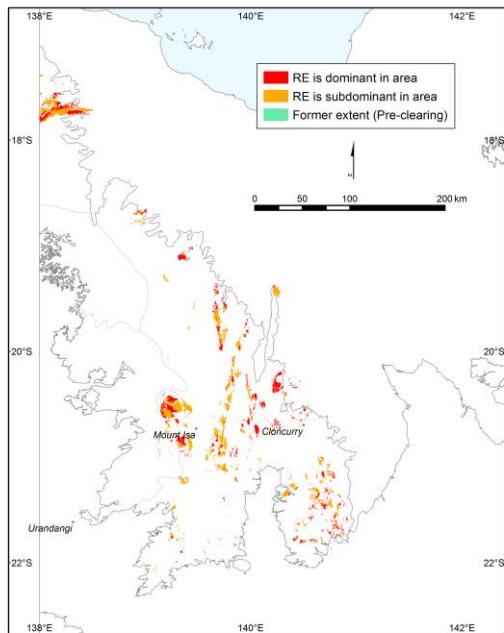
*Frequent species (cover, frequency): GRAMINOIDs: Triodia pungens (30, 100%)  
FORBS:*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.12.1: Eucalyptus leucophloia low open woodland on granites



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 141,588 141,520 99.95%

Species recorded: Total: 259; woody: 68; ground: 209; Avg. spp./site: 32.0; std dev.: 19.1, 17 site(s)

Basal area: Avg./site: 1.8 m<sup>2</sup>/ha, range: 0.5 - 6 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 15 site(s)

Structural formation: Low open-woodland: 76%; low woodland: 18%; woodland: 6%, 17 site(s)

Representative sites: 19414, 24273, 35124, 40424, 40484, 40853, 42129, 42147, 42151, 42156, 43055, 48434, 48474, 48475, 48517, 55854, 60734.

#### Stratum: Emergent

Height avg. = 11.0m, 1 site

Crown cover avg. = 6.0%, 1 site

Frequent species (cover, frequency): *Corymbia aparrerinja* (6, 6%)

#### Stratum: Tree 1

Height avg. = 6.2m, range 3-8.5m, 17 sites

Crown cover avg. = 17.2%, range 3.0-34.0%, 17 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (87, 100%), *Corymbia capricornia* (21, 35%), *Erythrophleum chlorostachys* (2, 29%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (14, 100%), *Corymbia capricornia* (5, 35%), *Erythrophleum chlorostachys* (1, 29%), *Eucalyptus normantonensis* (1, 12%), *Acacia cambagei* (1, 6%), *Apophyllum anomalum* (6%), *Corymbia grandifolia* subsp. *grandifolia* (6%), *Corymbia terminalis* (3, 6%), *Terminalia aridicola* subsp. *aridicola* (6, 6%), *Terminalia canescens* (2, 6%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Tree 2****Height avg. = 2.8m, range 2-3.5m, 2 sites****Crown cover avg. = 1.0%, range 0.0-2.0%, 2 sites***Frequent species (cover, frequency): Alphitonia excelsa (1, 6%), Eremophila mitchellii (1, 6%), Terminalia aridicola (6%)***Stratum: Shrub 1****Height avg. = 1.7m, range 0.75-3m, 16 sites****Crown cover avg. = 4.7%, range 0.0-20.0%, 16 sites***Dominant species (relative cover, frequency): Petalostigma quadriloculare (31, 41%), Terminalia canescens (23, 35%)*

*Frequent species (cover, frequency): Petalostigma quadriloculare (2, 41%), Terminalia canescens (1, 35%), Corchorus sericeus subsp. sericeus (1, 18%), Acacia hemsleyi (12%), Acacia limbata (12%), Alphitonia excelsa (12%), Denhamia cunninghamii (12%), Dodonaea lanceolata (12%), Eremophila longifolia (12%), Erythroxylum ellipticum (2, 12%), Eucalyptus leucophloia subsp. euroa (12%), Flueggea virosa subsp. melanthesoides (12%), Grevillea dryandri subsp. dryandri (12%), Tephrosia sp. (Magazine Hill P.Jones 365) (12%), Tephrosia sp. (Mt Isa P.L.Harris 277) (12%), Acacia asperulacea (6%), Acacia colei var. colei (6%), Acacia galioidea (6%), Acacia gonoclada (6%), Acacia hammondii (6%), Acacia hilliana (20, 6%), Acacia laccata (6%), Acacia monticola (6%), Acacia orthocarpa (5, 6%), Acacia retivenea subsp. retivenea (10, 6%), Acacia tenuissima (6%), Acacia umbellata (6%), Acacia wickhamii (6%), Bonamia multiflora (6%), Capparis indet. (3, 6%), Carissa lanceolata (6%), Chamaecrista grisea (6%), Clerodendrum floribundum (6%), Cochlospermum gregorii (6%), Corchorus sericeus subsp. densiflorus (6%), Corymbia capricornia (6%), Dodonaea hispidula var. hispidula (6%), Dodonaea stenophylla (5, 6%), Eremophila indet. (10, 6%), Eremophila latrobei (6%), Eremophila mitchellii (6%), Grevillea mimosoides (6%), Hakea arboreascens (6%), Plumbago zeylanica (6%), Senna glutinosa subsp. pruinosa (3, 6%), Senna indet. (6%), Senna venusta (6%), Sida rohlenae (6%), Sida sp. (Murray Springs R.W.Johnson+ MRS919) (6%), Tephrosia coriacea (6%), Terminalia aridicola subsp. aridicola (6%), Trema tomentosa (6%), Triumfetta mellina (6%)*

**Stratum: Shrub 2****Height avg. = 0.8m, range 0.4-1m, 5 sites****Crown cover avg. = 6.2%, range 0.0-17.0%, 5 sites**

*Frequent species (cover, frequency): Petalostigma quadriloculare (4, 12%), Tephrosia phaeosperma var. (Westmoreland S.Melville 967) (12%), Acacia asperulacea (6%), Acacia limbata (7, 6%), Acacia phlebocarpa (11, 6%), Acacia retivenea subsp. retivenea (5, 6%), Acacia wickhamii (6%), Achyranthes aspera (6%), Corchorus sericeus (2, 6%), Eremophila cordatisepala (6%), Stemodia lythrifolia (6%), Tephrosia remotiflora (6%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.4m, range 0.2-1m, 17 sites****PFC avg. = 45.2%, range 17-83%, 17 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (71, 41%), *Triodia bitextura* (30, 35%), *Schizachyrium fragile* (27, 35%), *Sehima nervosum* (17, 24%), *Sarga plumosum* (13, 24%)

Frequent species (cover, frequency): GRAMINOIDs: *Eriachne mucronata* (47%), *Eulalia aurea* (1, 47%), *Mnesithea formosa* (4, 47%), *Triodia pungens* (38, 41%), *Aristida holathera* var. *holathera* (4, 35%), *Bulbostylis barbata* (35%), *Cymbopogon bombycinus* (35%), *Schizachyrium fragile* (12, 35%), *Triodia bitextura* (16, 35%), *Eriachne ciliata* (2, 29%), *Eriachne* sp. (*Dugald River B.K.Simon + 3007*) (29%), *Heteropogon contortus* (4, 29%), *Enneapogon polypyllus* (24%), *Sarga plumosum* (4, 24%), *Sehima nervosum* (8, 24%), *Cymbopogon ambiguus* (18%), *Enneapogon lindleyanus* (18%), *Enneapogon purpurascens* (18%), *Fimbristylis dichotoma* (18%), *Scleria brownii* (18%), *Setaria surgens* (2, 18%), *Themeda triandra* (1, 18%), *Triodia molesta* (38, 18%), *Aristida contorta* (12%), *Aristida hygrometrica* (12%), *Aristida pruinosa* (12%), *Eragrostis cumingii* (12%), *Eriachne* indet. (12%), *Fimbristylis cardiocarpa* (12%), *Perotis rara* (12%), *Triodia brizoides* (20, 12%), *Yakirra majuscula* (12%), *Acrachne racemosa* (6%), *Aristida nitidula* (6%), *Aristida perniciosa* (6%), *Cenchrus pennisetiformis\** (7, 6%), *Chrysopogon fallax* (6%), *Cyperus microcephalus* subsp. *microcephalus* (6%), *Dactyloctenium radulans* (6%), *Digitaria brownii* (6%), *Digitaria gibbosa* (6%), *Digitaria nematostachya* (6%), *Eragrostis confertiflora* (6%), *Eriachne melicacea* (6%), *Eriachne pulchella* subsp. *dominii* (6%), *Panicum effusum* (6%), *Panicum laevinode* (6%), *Panicum mindanaense* (6%), *Paspalidium* indet. (6%), *Paspalidium rarum* (6%), *Sporobolus australasicus* (6%), *Urochloa holosericea* (6%)

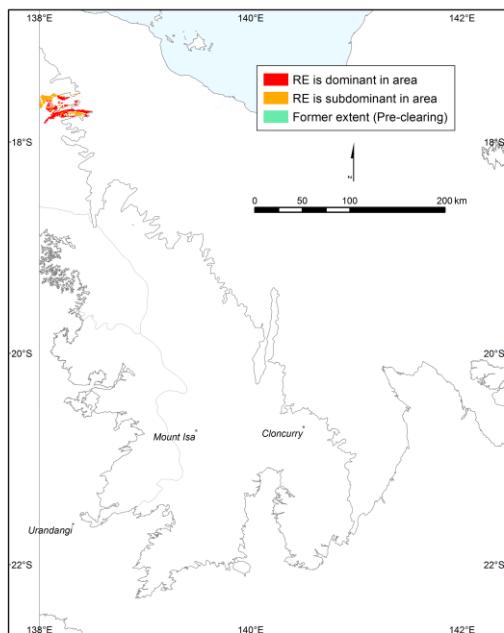
FORBS: *Cleome viscosa* (47%), *Crotalaria medicaginea* (47%), *Crotalaria montana* (35%), *Bonamia media* (29%), *Evolvulus alsinoides* (29%), *Indigofera linifolia* (29%), *Phyllanthus virgatus* (29%), *Polygala* indet. (29%), *Boerhavia pubescens* (24%), *Breynia oblongifolia* (24%), *Euphorbia crassimarginata* (24%), *Heliotropium tenuifolium* (24%), *Indigofera colutea* (24%), *Indigofera linnaei* (24%), *Sida* indet. (24%), *Tribulopis pentandra* (24%), *Chamaecrista absus* var. *absus* (18%), *Cucumis melo* (18%), *Euphorbia tannensis* (18%), *Goodenia odontellii* (18%), *Hibiscus sturtii* (18%), *Mitrasacme connata* (18%), *Oldenlandia* indet. (18%), *Polycarphae corymbosa* (18%), *Polygala crassitesta* (18%), *Ptilotus corymbosus* (18%), *Waltheria indica* (2, 18%), *Zornia muriculata* (18%), *Acacia galiooides* (1, 12%), *Bidens bipinnata\** (12%), *Bidens pilosa\** (12%), *Bonamia pannosa* (12%), *Chamaecrista grisea* (12%), *Desmodium filiforme* (12%), *Euphorbia coghlanii* (12%), *Evolvulus alsinoides* var. *decumbens* (12%), *Evolvulus alsinoides* var. *vilosocalyx* (12%), *Goodenia* indet. (12%), *Heliotropium ballii* (12%), *Heliotropium peninsulare* (12%), *Hybanthus* indet. (12%), *Indigofera hirsuta* (12%), *Melhania oblongifolia* (12%), *Microstachys chamaelea* (12%), *Phyllanthus carpentariae* (12%), *Phyllanthus maderaspatensis* (12%), *Polygala barklyensis* (12%), *Portulaca bicolor* (12%), *Ptilotus fusiformis* (12%), *Ptilotus obovatus* (1, 12%), *Sida fibulifera* (1, 12%), *Sida hackettiana* (12%), *Sida* sp. (*Musselbrook M.B.Thomas + MRS437*) (12%), *Solanum succosum* (12%), *Spermacoce auriculata* (12%), *Spermacoce latimarginata* (12%), *Uraria lagopodioides* (12%), *Xenostegia tridentata* (12%), *Abutilon hannii* (6%), *Acacia asperulacea* (6%), *Acacia chippendalei* (6%), *Acacia gonoclada* (6%), *Acacia hammondii* (6%), *Acacia hyaloneura* (6%), *Achyranthes aspera* (6%), *Alternanthera* sp. (*Mt Isa R.L.Speccht + 49*) (6%), *Anisomeles* indet. (6%), *Asteraceae* indet. (6%), *Boerhavia* indet. (6%), *Bonamia* indet. (6%), *Bonamia multiflora* (6%), *Buchnera asperata* (6%), *Capparis lasiantha* (1, 6%), *Capparis loranthifolia* (6%), *Cheilanthes brownii* (6%), *Cheilanthes nitida* (6%), *Commelinia ensifolia* (6%), *Corchorus aestuans* (6%), *Corchorus pumilio* (6%), *Corchorus sericeus* (1, 6%), *Corchorus sericeus* subsp. *densiflorus* (6%), *Corchorus sidooides* (6%), *Crotalaria novae-hollandiae* (6%), *Cucumis argenteus* (6%), *Eremophila latrobei* (6%), *Eremophila macgillivrayi* (6%), *Eriosema* indet. (6%), *Euphorbia bifida* (6%), *Euphorbia* indet. (6%), *Euphorbia tannensis* subsp. *eremophila* (6%), *Euphorbia trigonosperma* (6%), *Galactia tenuiflora* (6%), *Galactia tenuiflora* var. *macrantha* (6%), *Gomphrena* indet. (6%), *Gomphrena lanata* (6%), *Goodenia armittiana* (6%), *Hakea chordophylla* (6%), *Heliotropium cunninghamii* (6%), *Hibiscus meraukensis* (6%), *Hypoestes floribunda* var. *cinerea* (6%), *Indigofera pratensis* (6%), *Indigofera trita* subsp. *trita* (6%), *Ipomoea coptica* (6%), *Jasminum molle* (6%), *Kohautia australiensis* (6%), *Maireana triptera* (6%), *Marsdenia muelleri* (6%), *Murdannia graminea* (6%), *Nicotiana benthamiana* (6%), *Oldenlandia mitrasacmoides* subsp. *mitrasacmoides* (6%), *Petalostigma quadriloculare* (6%), *Phyllanthus lacunarius* (6%), *Pluchea dentex* (6%), *Polycarphae multicaulis* (6%), *Polycarphae spirostylis* subsp. *spirostylis* (6%), *Polygala isingii* (6%), *Polygala pterocarpa* (6%), *Pterocaulon* indet. (6%), *Pterocaulon serrulatum* (6%), *Pterocaulon serrulatum* var. *serrulatum* (6%), *Pterocaulon serrulatum* var. *velutinum* (6%), *Ptilotus nobilis* (6%), *Ptilotus nobilis* subsp. *nobilis* (6%), *Rostellularia adscendens* (6%), *Rostellularia adscendens* subsp. *adscendens* (6%), *Sauvagesia* indet. (6%), *Scaevola browniana* subsp. *browniana* (6%), *Sclerolaena bicornis* (6%), *Sclerolaena lanicuspis* (6%), *Senna* indet. (6%), *Senna notabilis* (6%), *Sida trichopoda* (6%), *Solanum echinatum* (6%), *Solanum* indet. (6%), *Solanum quadriloculatum* (6%), *Stackhousia intermedia* (6%), *Stemodia lythrifolia* (6%), *Streptoglossa odora* (6%), *Striga curviflora* (6%), *Stylosanthes* indet. (6%), *Tephrosia filipes* (6%), *Tephrosia leptoclada* (6%), *Tephrosia phaeosperma* var. (*Westmoreland S.Melville 967*) (6%), *Tephrosia remotiflora* (6%), *Tephrosia* sp. (*Mt Isa P.L.Harris 277*) (6%), *Tinospora smilacina* (6%), *Trichodesma zeylanicum* (6%), *Triumfetta plumigera* (6%), *Vigna lanceolata* var. *filiformis* (6%), *Zornia* indet. (6%), *Zornia muriculata* subsp. *angustata* (6%), *Zornia muriculata* subsp. *muriculata* (6%), *Zornia prostrata* var. *prostrata* (6%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.12.1x5: *Corymbia capricornia* and *Eucalyptus herbertiana* low open woodland on granites



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 25,349 25,343 99.98%

Species recorded: Total: 83; woody: 20; ground: 65; Avg. spp./site: 45.5; std dev.: 9.5, 2 site(s)

Basal area: Avg./site: 0.8 m<sup>2</sup>/ha, range: 0.3 - 1 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative sites: 40510, 48435.

#### Stratum: Tree 1

Height avg. = 6.5m, range 6-7m, 2 sites

Crown cover avg. = 9.0%, range 3.0-15.0%, 2 sites

Dominant species (relative cover, frequency): *Corymbia capricornia* (100, 100%)

Frequent species (cover, frequency): *Corymbia capricornia* (9, 100%)

#### Stratum: Tree 2

Height avg. = 2.5m, range 2-3m, 2 sites

Crown cover avg. = 6.0%, range 2.0-10.0%, 2 sites

Dominant species (relative cover, frequency): *Eucalyptus herbertiana* (82, 50%), *Terminalia canescens* (56, 100%), *Acacia hempsleyi* (5, 50%), *Corymbia capricornia* (2, 50%)

Frequent species (cover, frequency): *Terminalia canescens* (2, 100%), *Acacia hempsleyi* (50%), *Corymbia capricornia* (50%), *Eucalyptus herbertiana* (5, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.5m, range 1.5-1.5m, 2 sites****Crown cover avg. = 0.0%, range 0.0-0.0%, 2 sites**

Dominant species (relative cover, frequency): *Grevillea mimosoides* (100, 50%), *Acacia asperulacea* (40, 50%), *Acacia hemsleyi* (4, 50%), *Calytrix exstipulata* (4, 50%), *Cassytha filiformis* (4, 50%)

Frequent species (cover, frequency): *Acacia asperulacea* (1, 50%), *Acacia hemsleyi* (50%), *Calytrix exstipulata* (50%), *Cassytha filiformis* (50%), *Corchorus pumilio* (50%), *Dodonaea barklyana* (50%), *Grevillea dryandri* subsp. *dryandri* (50%), *Grevillea mimosoides* (50%), *Stemodia lythrifolia* (50%), *Tephrosia phaeosperma* var. (*Westmoreland S.Melville 967*) (50%), *Tephrosia* sp. (*Barkly Downs S.L.Everist 3384*) (50%), *Tephrosia* sp. (*Mt Isa P.L.Harris 277*) (50%), *Tephrosia virens* (50%), *Triumfetta micracantha* (50%), *Triumfetta plumigera* (50%), *Waltheria indica* (50%), *Wrightia saligna* (50%)

**Stratum: Ground****Height avg. = 0.3m, range 0.3-0.3m, 2 sites****PFC avg. = 36.0%, range 31-41%, 2 sites**

Dominant species (relative cover, frequency): *Triodia bitextura* (58, 50%), *Triodia pungens* (50, 50%), *Eriachne ciliata* (17, 50%), *Eriachne mucronata* (12, 50%), *Evolvulus alsinoides* var. *decumbens* (12, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Fimbristylis dichotoma* (100%), *Mnesithea formosa* (2, 100%), *Schizachyrium fragile* (2, 100%), *Aristida holathera* var. *holathera* (50%), *Aristida hygrometrica* (50%), *Bulbostylis barbata* (50%), *Cymbopogon obtectus* (50%), *Cyperus castaneus* (50%), *Cyperus cunninghamii* (50%), *Cyperus microcephalus* subsp. *saxicola* (50%), *Digitaria gibbosa* (50%), *Enneapogon indet.* (1, 50%), *Enneapogon lindleyanus* (2, 50%), *Eriachne ciliata* (6, 50%), *Eriachne melicacea* (1, 50%), *Eriachne mucronata* (5, 50%), *Eriachne* sp. (*Dugald River B.K.Simon+ 3007*) (50%), *Schizachyrium perplexum* (2, 50%), *Setaria surgens* (50%), *Thaumastochloa pubescens* (50%), *Thaumastochloa rariflora* (50%), *Triodia bitextura* (20, 50%), *Triodia pungens* (20, 50%), *Urochloa holosericea* (50%)

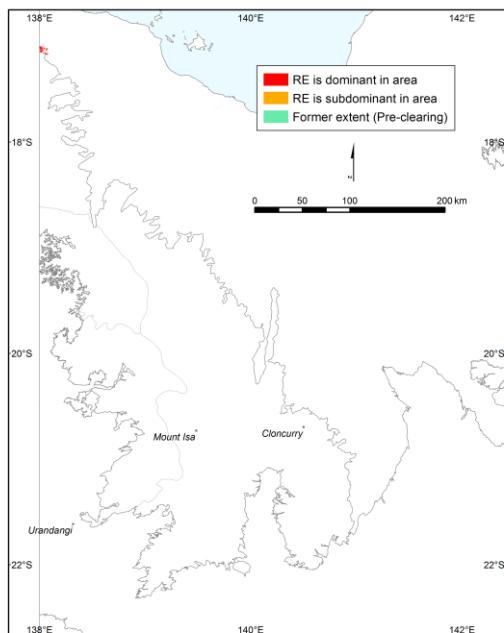
FORBS: *Bonamia multiflora* (100%), *Acacia galiooides* (50%), *Cheilanthes brownii* (50%), *Cheilanthes* indet. (50%), *Cleome viscosa* (50%), *Crotalaria* indet. (50%), *Crotalaria medicaginea* (50%), *Crotalaria montana* (50%), *Crotalaria novae-hollandiae* (50%), *Desmodium filiforme* (50%), *Euphorbia crassimarginata* (50%), *Evolvulus alsinoides* var. *decumbens* (4, 50%), *Evolvulus alsinoides* var. *vilosocalyx* (50%), *Gomphrena lanata* (50%), *Goodenia odonellii* (50%), *Heliotropium ballii* (50%), *Heliotropium consimile* (50%), *Heliotropium cunninghamii* (50%), *Hibiscus brachychlaenus* (50%), *Hybanthus aurantiacus* (50%), *Indigofera colutea* (50%), *Indigofera haplophylla* (50%), *Indigofera linifolia* (50%), *Lindernia lobelioides* (50%), *Mitrasacme connata* (50%), *Oldenlandia mitrasacmoides* subsp. *mitrasacmoides* (50%), *Phyllanthus carpentariae* (50%), *Phyllanthus virgatus* (50%), *Polycarpea spirostylis* subsp. *spirostylis* (50%), *Polygala* indet. (50%), *Polygala longifolia* (50%), *Polygala wightiana* (50%), *Solanum* indet. (50%), *Spermacoce auriculata* (1, 50%), *Spermacoce latimarginata* (50%), *Tephrosia phaeosperma* var. (*Westmoreland S.Melville 967*) (50%), *Tephrosia* sp. (*Magazine Hill P.Jones 365*) (50%), *Tribulopis pentandra* (50%), *Triumfetta plumigera* (50%), *Xenostegia tridentata* (50%), *Zornia muriculata* (50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**1.12.1x9: Eucalyptus tetrodonta, Corymbia capricornia and Eucalyptus miniata low woodland**


**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 2,017      2,017      100.00%

**Species recorded:** Total: 37; woody: 11; ground: 33; Avg. spp./site: 37.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 7.8 m<sup>2</sup>/ha, range: 7.8 - 8 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low woodland: 100%, 1 site(s)

**Representative sites:** 60757.

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**Stratum: Tree 1**

**Height avg. = 10.0m, 1 site**

**Crown cover avg. = 49.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus tetrodonta (53, 100%), Corymbia capricornia (29, 100%), Eucalyptus miniata (14, 100%), Erythrophleum chlorostachys (4, 100%)*

*Frequent species (cover, frequency): Corymbia capricornia (14, 100%), Erythrophleum chlorostachys (2, 100%), Eucalyptus miniata (7, 100%), Eucalyptus tetrodonta (26, 100%)*

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**Stratum: Tree 2**

**Height avg. = 5.0m, 1 site**

**Crown cover avg. = 11.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus tetrodonta (53, 100%), Terminalia canescens (21, 100%), Corymbia capricornia (21, 100%), Owenia vernicosa (1, 100%), Eucalyptus miniata (1, 100%)*

*Frequent species (cover, frequency): Acacia platycarpa (100%), Buchanania obovata (100%), Corymbia capricornia (2, 100%), Eucalyptus miniata (100%), Eucalyptus tetrodonta (5, 100%), Owenia vernicosa (100%), Terminalia canescens (2, 100%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 1.6m, 1 site****Crown cover avg. = 3.0%, 1 site**

Dominant species (relative cover, frequency): *Eucalyptus tetrodonta* (57, 100%), *Corymbia capricornia* (29, 100%), *Terminalia canescens* (3, 100%), *Eucalyptus miniata* (3, 100%), *Calytrix exstipulata* (3, 100%)

Frequent species (cover, frequency): *Acacia hammondii* (100%), *Breynia oblongifolia* (100%), *Calytrix exstipulata* (100%), *Corymbia capricornia* (1, 100%), *Eucalyptus miniata* (100%), *Eucalyptus tetrodonta* (2, 100%), *Terminalia canescens* (100%)

**Stratum: Ground****Height avg. = 0.3m, 1 site****PFC avg. = 37.0%, 1 site**

Dominant species (relative cover, frequency): *Triodia bitextura* (57, 100%), *Schizachyrium fragile* (21, 100%), *Eriachne melicacea* (5, 100%), *Acacia asperulacea* (3, 100%), *Terminalia canescens* (3, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Abildgaardia vaginata* (100%), *Eragrostis indet.* (1, 100%), *Eriachne ciliata* (100%), *Eriachne melicacea* (2, 100%), *Schizachyrium fragile* (8, 100%), *Scleria brownii* (100%), *Triodia bitextura* (22, 100%)

FORBS: *Acacia asperulacea* (1, 100%), *Blumea tenella* (100%), *Bonamia media* (100%), *Breynia oblongifolia* (100%), *Calytrix exstipulata* (1, 100%), *Cassytha indet.* (100%), *Cheilanthes brownii* (100%), *Clerodendrum floribundum* (100%), *Crotalaria novae-hollandiae* (100%), *Eucalyptus miniata* (100%), *Eucalyptus tetrodonta* (100%), *Euphorbia mitchelliana* (100%), *Flueggea virosa* subsp. *melanthesoides* (100%), *Gonocarpus leptothecus* (100%), *Goodenia indet.* (100%), *Grevillea dryandri* subsp. *dryandri* (100%), *Nelsonia campestris* (100%), *Oldenlandia corymbosa*\* (100%), *Spermacoce latimarginata* (100%), *Stemodia lythrifolia* (100%), *Tephrosia conspicua* (100%), *Tephrosia coriacea* (100%), *Tephrosia phaeosperma* var. (*Westmoreland S.Melville 967*) (100%), *Terminalia canescens* (1, 100%), *Triumfetta micracantha* (100%), *Zornia muriculata* (100%)

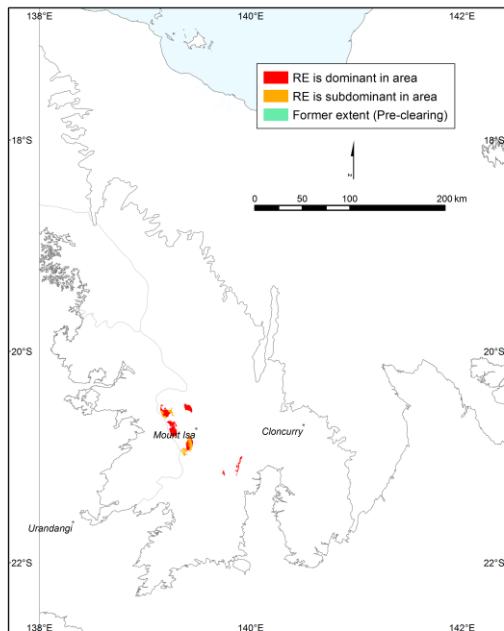
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.12.2: *Eucalyptus melanophloia* low open woodland on low granite hills and torfields



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 19,054 19,041 99.93%

Species recorded: Total: 43; woody: 14; ground: 29; Avg. spp./site: 23.0; std dev.: 7.0, 2 site(s)

Basal area: Avg./site: 2.0 m<sup>2</sup>/ha, range: 2.0 - 2 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative sites: 19346, 42158.

#### Stratum: Tree 1

Height avg. = 3.3m, range 2.5-4m, 2 sites

Crown cover avg. = 9.5%, range 5.0-14.0%, 2 sites

Dominant species (relative cover, frequency): *Eucalyptus melanophloia* subsp. *nana* (73, 100%), *Acacia monticola* (28, 50%), *Terminalia aridicola* (21, 50%), *Brachychiton collinus* (2, 50%), *Psydrax attenuata* (1, 50%)

Frequent species (cover, frequency): *Eucalyptus melanophloia* subsp. *nana* (6, 100%), *Acacia monticola* (4, 50%), *Brachychiton collinus* (50%), *Corymbia capricornia* (50%), *Grevillea wickhamii* subsp. *aprifica* (50%), *Psydrax attenuata* (50%), *Terminalia aridicola* (3, 50%)

#### Stratum: Tree 2

Height avg. = 2.0m, 1 site

Crown cover avg. = 5.0%, 1 site

Dominant species (relative cover, frequency): *Terminalia aridicola* (100, 50%)

Frequent species (cover, frequency): *Terminalia aridicola* (5, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 1.5m, range 1.2-1.8m, 2 sites****Crown cover avg. = 6.5%, range 6.0-7.0%, 2 sites**

Dominant species (relative cover, frequency): *Acacia monticola* (70, 50%), *Tephrosia* indet. (47, 50%), *Corchorus sidoides* (47, 50%), *Senna venusta* (28, 50%), *Triumfetta* indet. (2, 50%)

Frequent species (cover, frequency): *Acacia monticola* (5, 50%), *Corchorus sidoides* (3, 50%), *Eremophila latrobei* (50%), *Eremophila longifolia* (50%), *Psydrax attenuata* (50%), *Senna venusta* (2, 50%), *Tephrosia* indet. (3, 50%), *Trema tomentosa* (50%), *Triumfetta* indet. (50%)

**Stratum: Ground****Height avg. = 0.6m, range 0.5-0.6m, 2 sites****PFC avg. = 35.5%, range 20-51%, 2 sites**

Dominant species (relative cover, frequency): *Triodia molesta* (76, 50%), *Triodia pungens* (73, 50%), *Corchorus sericeus* (10, 50%), *Cassytha* indet. (10, 50%), *Eriachne ciliata* (6, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida* indet. (50%), *Cymbopogon ambiguus* (1, 50%), *Cymbopogon bombycinus* (50%), *Cyperus* indet. (50%), *Digitaria brownii* (50%), *Eriachne ciliata* (3, 50%), *Eriachne pulchella* subsp. *dominii* (50%), *Eriachne* sp. (Dugald River B.K.Simon+ 3007) (50%), *Paspalidium rarum* (50%), *Schizachyrium fragile* (50%), *Triodia molesta* (40, 50%), *Triodia pungens* (15, 50%), *Tripogon loliiformis* (50%)

FORBS: *Acacia chippendalei* (2, 50%), *Alternanthera* indet. (50%), *Cassytha* indet. (5, 50%), *Cheilanthes brownii* (50%), *Cleome viscosa* (50%), *Corchorus sericeus* (2, 50%), *Evolvulus alsinoides* var. *decumbens* (50%), *Goodenia* indet. (1, 50%), *Phyllanthus* indet. (50%), *Pterocaulon serrulatum* (50%), *Rostellularia adscendens* (50%), *Sida* indet. (1, 50%), *Solanum echinatum* (1, 50%), *Streptoglossa* indet. (50%), *Triumfetta johnstonii* (50%), *Waltheria indica* (50%)

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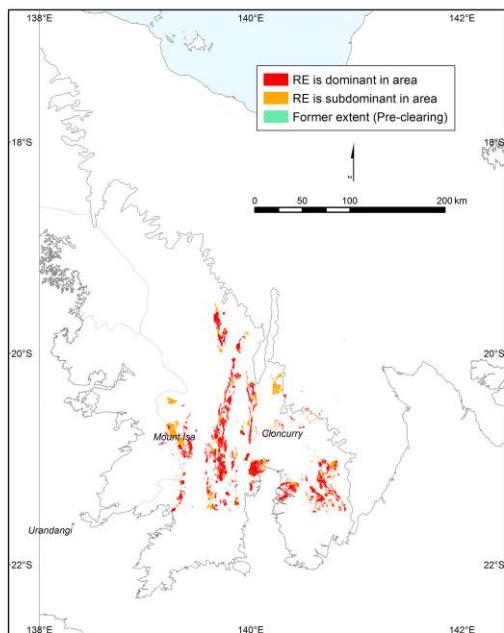
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.12.3a: *Eucalyptus leucophylla* low open woodland on igneous rocks



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 180,754 180,535 99.88%

Species recorded: Total: 65; woody: 16; ground: 52; Avg. spp./site: 25.0; std dev.: 13.6, 3 site(s)

Basal area: Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 3 site(s)

Representative sites: 23417, 42181, 55395.

#### Stratum: Tree 1

Height avg. = 4.7m, range 3-6m, 3 sites

Crown cover avg. = 7.7%, range 6.0-9.0%, 3 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (95, 100%), *Eucalyptus leucophloia* subsp. *euroa* (13, 33%), *Corymbia terminalis* (1, 33%)

Frequent species (cover, frequency): *Eucalyptus leucophylla* (7, 100%), *Corymbia terminalis* (33%), *Eucalyptus leucophloia* subsp. *euroa* (1, 33%)

#### Stratum: Shrub 1

Height avg. = 1.8m, range 1.5-2.5m, 3 sites

Crown cover avg. = 13.3%, range 1.0-20.0%, 3 sites

Dominant species (relative cover, frequency): *Acacia melleodora* (91, 33%), *Acacia chisholmii* (87, 67%), *Senna glutinosa* subsp. *pruinosa* (10, 33%), *Hakea lorea* subsp. *lorea* (9, 33%), *Senna glutinosa* (5, 33%)

Frequent species (cover, frequency): *Acacia chisholmii* (18, 67%), *Atalaya hemiglaucha* (1, 67%), *Acacia melleodora* (1, 33%), *Denhamia cunninghamii* (1, 33%), *Gossypium australe* (33%), *Hakea lorea* subsp. *lorea* (33%), *Senna glutinosa* (1, 33%), *Senna glutinosa* subsp. *pruinosa* (2, 33%), *Senna planitiicola* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 0.9m, range 0.7-1m, 2 sites****Crown cover avg. = 6.4%, range 5.0-7.9%, 2 sites***Dominant species (relative cover, frequency): Acacia hilliana (100, 33%), Corchorus sericeus subsp. densiflorus (99, 33%)**Frequent species (cover, frequency): Acacia hilliana (5, 33%), Acacia melleodora (33%), Clerodendrum floribundum (33%), Corchorus sericeus subsp. densiflorus (6, 33%), Triumfetta johnstonii (33%)***Stratum: Ground****Height avg. = 0.4m, range 0.3-0.4m, 3 sites****PFC avg. = 47.7%, range 30-57%, 3 sites***Dominant species (relative cover, frequency): Triodia molesta (91, 33%), Triodia pungens (55, 67%), Heteropogon contortus (16, 33%), Themeda triandra (13, 100%), Aristida latifolia (7, 33%)**Frequent species (cover, frequency): GRAMINOIDs: Themeda triandra (7, 100%), Enneapogon polypylus (2, 67%), Triodia pungens (28, 67%), Aristida contorta (33%), Aristida holathera var. holathera (33%), Aristida latifolia (2, 33%), Aristida pruinosa (2, 33%), Bulbostylis barbata (33%), Cenchrus pennisetiformis\* (33%), Chrysopogon fallax (1, 33%), Cymbopogon bombycinus (33%), Digitaria brownii (1, 33%), Digitaria ctenantha (33%), Enneapogon lindleyanus (33%), Enneapogon nigricans (33%), Eriachne mucronata (33%), Fimbristylis dichotoma (33%), Heteropogon contortus (5, 33%), Mnesithea formosa (33%), Setaria surgens (1, 33%), Triodia molesta (50, 33%)**FORBS: Achyranthes aspera (67%), Ptilotus indet. (1, 67%), Abutilon hannii (33%), Bonamia media (33%), Chamaecrista symonii (1, 33%), Cheilanthes brownii (33%), Cleome viscosa (33%), Crotalaria medicaginea (1, 33%), Crotalaria novae-hollandiae subsp. novae-hollandiae (33%), Cucumis argenteus (33%), Desmodium muelleri (33%), Galactia tenuiflora (1, 33%), Gomphrena lanata (33%), Heliotropium cunninghamii (33%), Heliotropium tenuifolium (33%), Hibiscus sturtii (33%), Hybanthus aurantiacus (33%), Indigofera colutea (33%), Indigofera hirsuta (33%), Indigofera linifolia (33%), Indigofera linnaei (1, 33%), Phyllanthus indet. (33%), Phyllanthus virgatus (33%), Pterocaulon serrulatum var. velutinum (1, 33%), Sclerolaena cornishiana (33%), Sida fibulifera (33%), Sida indet. (33%), Solanum echinatum (33%), Solanum quadriloculatum (33%), Tephrosia flagellaris (33%)*

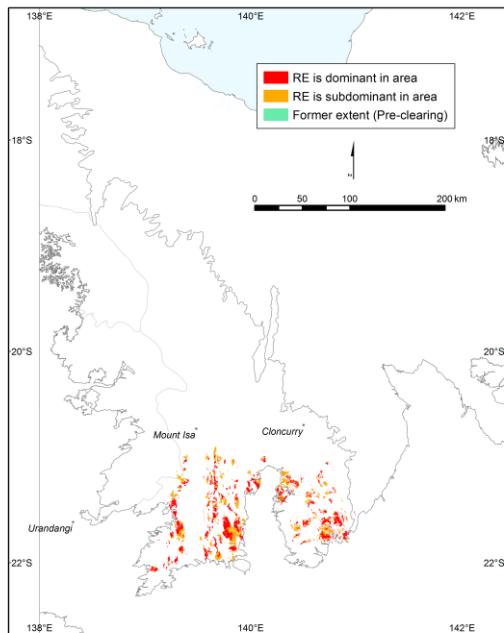

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.12.3b: Mixed low open woodland on granite plains



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 123,095 123,052 99.97%

**Species recorded:** Total: 42; woody: 10; ground: 34; Avg. spp./site: 24.0; std dev.: 9.0, 2 site(s)

**Basal area:** Avg./site: 1.1 m<sup>2</sup>/ha, range: 0.8 - 2 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 2 site(s)

**Structural formation:** Low open-woodland: 100%, 2 site(s)

**Representative sites:** 55495, 57375.

#### Stratum: Tree 1

**Height avg. = 6.5m, range 6-7m, 2 sites**

**Crown cover avg. = 10.4%, range 9.8-11.0%, 2 sites**

*Dominant species (relative cover, frequency): Atalaya hemiglauca (64, 50%), Corymbia terminalis (54, 100%), Eucalyptus leucophylla (27, 50%)*

*Frequent species (cover, frequency): Corymbia terminalis (5, 100%), Acacia cambagei (50%), Atalaya hemiglauca (3, 50%), Corymbia aparrerinja (50%), Eucalyptus leucophylla (3, 50%)*

#### Stratum: Shrub 1

**Height avg. = 1.0m, range 0.7-1.2m, 2 sites**

**Crown cover avg. = 1.5%, range 1.0-2.0%, 2 sites**

*Dominant species (relative cover, frequency): Eremophila latrobei (71, 50%), Acacia hemignosta (48, 50%), Atalaya hemiglauca (27, 100%), Senna glutinosa subsp. glutinosa (7, 50%), Hakea chordophylla (7, 50%)*

*Frequent species (cover, frequency): Atalaya hemiglauca (1, 100%), Carissa lanceolata (100%), Acacia hemignosta (1, 50%), Eremophila latrobei (1, 50%), Hakea chordophylla (50%), Senna glutinosa subsp. glutinosa (50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.2m, range 0.2-0.2m, 2 sites****PFC avg. = 27.5%, range 10-45%, 2 sites**

Dominant species (relative cover, frequency): *Triodia brizoides* (67, 50%), *Aristida contorta* (15, 100%), *Tripogon loliiformis* (10, 50%), *Enneapogon indet.* (10, 50%), *Paraneurachne muelleri* (10, 50%)

Frequent species (cover, frequency): **GRAMINOIDs:** *Aristida contorta* (7, 100%), *Eriachne mucronata* (100%), *Aristida calycina* var. *praealta* (50%), *Aristida longicollis* (3, 50%), *Bulbostylis barbata* (4, 50%), *Chloris virgata\** (50%), *Chrysopogon fallax* (3, 50%), *Enneapogon indet.* (1, 50%), *Enneapogon polyphyllus* (50%), *Fimbristylis dichotoma* (50%), *Heteropogon contortus* (3, 50%), *Panicum decompositum* var. *decompositum* (50%), *Paraneurachne muelleri* (1, 50%), *Themeda triandra* (4, 50%), *Triodia brizoides* (7, 50%), *Tripogon loliiformis* (1, 50%)

**FORBS:** *Cleome viscosa* (100%), *Alternanthera* sp. (Mt Isa R.L.Speccht+ 49) (50%), *Boerhavia indet.* (50%), *Bonamia media* (4, 50%), *Crotalaria medicaginea* (50%), *Heliotropium frohlichii* (50%), *Heliotropium indet.* (50%), *Indigofera hirsuta* (4, 50%), *Indigofera linifolia* (50%), *Indigofera linnaei* (1, 50%), *Melhania oblongifolia* (50%), *Phyllanthus indet.* (50%), *Polycarpea breviflora* (50%), *Pterocaulon serrulatum* var. *serrulatum* (50%), *Scaevola ovalifolia* (50%), *Sida fibulifera* (1, 50%), *Solanum quadriloculatum* (4, 50%), *Zornia muriculata* (50%)

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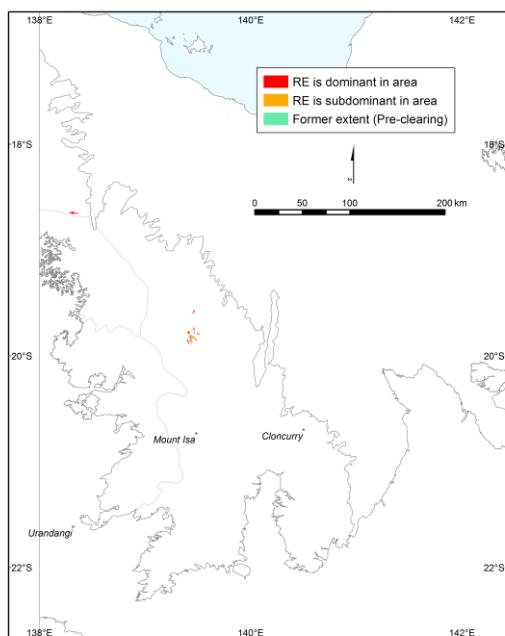
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.12.3c: Corymbia terminalis and/or Eucalyptus leucophylla low open woodland on basic igneous rocks



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 3,271 3,251 99.39%

Species recorded: Total: 62; woody: 16; ground: 50; Avg. spp./site: 34.0; std dev.: 1.0, 2 site(s)

Basal area: Avg./site: 0.3 m<sup>2</sup>/ha, range: 0.3 - 0 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative sites: 40408, 59595.

#### Stratum: Tree 1

Height avg. = 6.0m, range 5-7m, 2 sites

Crown cover avg. = 6.5%, range 6.0-7.0%, 2 sites

Dominant species (relative cover, frequency): *Corymbia terminalis* (80, 100%), *Eucalyptus leucophylla* (16, 100%), *Terminalia hadleyana* subsp. *carpentariae* (2, 50%), *Psydrax oleifolia* (2, 50%), *Eucalyptus pruinosa* subsp. *pruinosa* (2, 50%)

Frequent species (cover, frequency): *Corymbia terminalis* (6, 100%), *Eucalyptus leucophylla* (1, 100%), *Atalaya hemiglaucha* (50%), *Corymbia aparrerinja* (50%), *Eucalyptus pruinosa* subsp. *pruinosa* (50%), *Psydrax oleifolia* (50%), *Terminalia hadleyana* subsp. *carpentariae* (50%)

#### Stratum: Tree 2

Height avg. = 4.0m, 1 site

Crown cover avg. = 0.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia terminalis* (100, 50%)

Frequent species (cover, frequency): *Corymbia terminalis* (50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.1m, range 0.9-1.2m, 2 sites****Crown cover avg. = 10.0%, range 9.0-11.0%, 2 sites**

Dominant species (relative cover, frequency): *Acacia chisholmii* (82, 100%), *Hakea arborescens* (20, 50%), *Flueggea virosa* subsp. *melanthesoides* (8, 50%), *Corymbia terminalis* (2, 50%), *Vachellia farnesiana*\* (1, 50%)

Frequent species (cover, frequency): *Acacia chisholmii* (7, 100%), *Atalaya hemiglaucia* (50%), *Carissa lanceolata* (50%), *Corymbia terminalis* (50%), *Cryptostegia grandiflora*\* (50%), *Eremophila longifolia* (50%), *Flueggea virosa* subsp. *melanthesoides* (1, 50%), *Gossypium australe* (50%), *Hakea arborescens* (1, 50%), *Psydrax oleifolia* (50%), *Senna planitiicola* (50%), *Vachellia farnesiana*\* (50%)

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.5m, 2 sites****PFC avg. = 60.0%, range 38-82%, 2 sites**

Dominant species (relative cover, frequency): *Triodia longiceps* (88, 50%), *Enneapogon purpurascens* (49, 50%), *Eragrostis tenellula* (18, 50%), *Triodia pungens* (18, 50%), *Eragrostis desertorum* (6, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Sporobolus australasicus* (100%), *Aristida latifolia* (50%), *Aristida pruinosa* (1, 50%), *Brachyachne convergens* (50%), *Enneapogon indet.* (1, 50%), *Enneapogon purpurascens* (40, 50%), *Eragrostis cumingii* (1, 50%), *Eragrostis desertorum* (5, 50%), *Eragrostis tenellula* (15, 50%), *Eulalia aurea* (50%), *Heteropogon contortus* (3, 50%), *Mnesithea formosa* (50%), *Sporobolus indet.* (50%), *Triodia longiceps* (28, 50%), *Triodia pungens* (15, 50%)

FORBS: *Cleome viscosa* (100%), *Sida fibulifera* (100%), *Abutilon hannii* (50%), *Achyranthes aspera* (50%), *Alysicarpus muelleri* (50%), *Atalaya hemiglaucia* (50%), *Blumea tenella* (50%), *Bonamia indet.* (50%), *Buchnera indet.* (50%), *Convolvulus indet.* (50%), *Crotalaria medicaginea* (50%), *Cucumis melo* (50%), *Desmodium indet.* (50%), *Evolvulus alsinoides* var. *decumbens* (50%), *Heliotropium indet.* (50%), *Heliotropium tenuifolium* (50%), *Indigofera colutea* (50%), *Indigofera linifolia* (50%), *Indigofera linnaei* (50%), *Ipomoea eriocarpa* (50%), *Malvastrum americanum* (50%), *Marsdenia viridiflora* subsp. *tropica* (50%), *Melhania oblongifolia* (50%), *Ocimum caryophyllum* (50%), *Polycarphaea breviflora* (50%), *Polygala isingrui* (50%), *Pterocaulon serrulatum* (50%), *Ptilotus fusiformis* (50%), *Ptilotus spicatus* (50%), *Rhynchosia minima* (50%), *Scaevola ovalifolia* (50%), *Sida hackettiana* (50%), *Sida indet.* (50%), *Spermacoce auriculata* (50%), *Trichodesma zeylanicum* (50%)

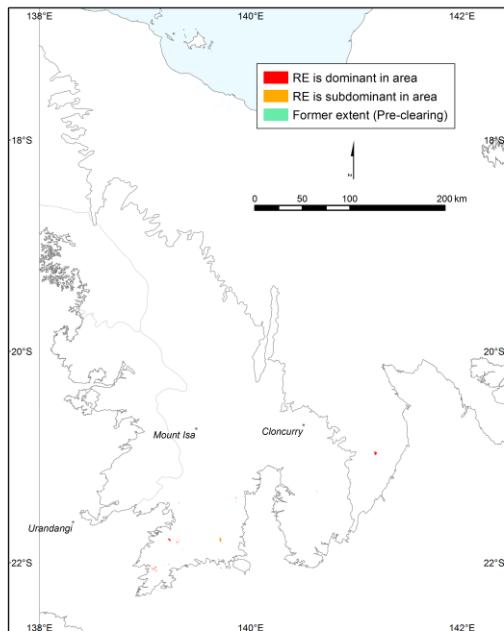
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.12.6: Hummock grassland on basic igneous rocks



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 1,866      1,864      99.88%

**Species recorded:** Total: 17; woody: 9; ground: 8; Avg. spp./site: 17.0; std dev.: 0.0, 1 site(s)

**Basal area:** 0

**Structural formation:** Hummock grassland: 100%, 1 site(s)

**Representative sites:** 45337.

#### Stratum: Emergent

**Height avg. = 4.5m, 1 site**

**Crown cover avg. = 0.0%, 1 site**

*Dominant species (relative cover, frequency): Senna glutinosa subsp. pruinosa (11, 100%), Senna artemisioides subsp. sturtii (11, 100%), Grevillea wickhamii subsp. aprica (11, 100%), Gossypium australe (11, 100%), Eucalyptus leucophylla (11, 100%)*

*Frequent species (cover, frequency): Acacia chisholmii (100%), Acacia melleodora (100%), Acacia spondylophylla (100%), Apophyllum anomalum (100%), Eucalyptus leucophylla (100%), Gossypium australe (100%), Grevillea wickhamii subsp. aprica (100%), Senna artemisioides subsp. sturtii (100%), Senna glutinosa subsp. pruinosa (100%)*

#### Stratum: Ground

**Height avg. = 0.5m, 1 site**

**PFC avg. = 45.0%, 1 site**

*Dominant species (relative cover, frequency): Triodia molesta (98, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Triodia molesta (40, 100%)*

*FORBS: Cleome viscosa (100%), Eucalyptus leucophloia subsp. euroa (100%), Euphorbia prostrata\* (100%), Hybanthus aurantiacus (100%), Ptilotus schwartzii (100%), Salsola australis (100%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (100%)*

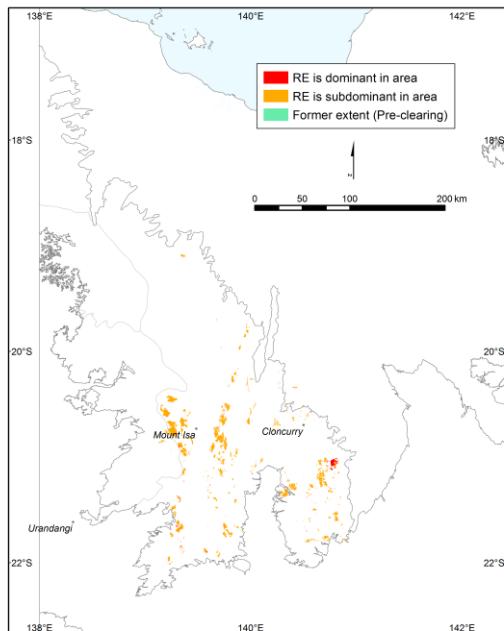
**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.12.7: Terminalia aridicola and Brachychiton collinus low open woodland on torfields



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 17,312 17,302 99.94%

Species recorded: Total: 86; woody: 18; ground: 72; Avg. spp./site: 28.0; std dev.: 7.8, 4 site(s)

Basal area: Avg./site: 0.9 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 4 site(s)

Structural formation: Low open-woodland: 100%, 4 site(s)

Representative sites: 19307, 19344, 42059, 55755.

#### Stratum: Tree 1

Height avg. = 3.3m, range 2.5-4m, 4 sites

Crown cover avg. = 5.0%, range 2.0-7.0%, 4 sites

Dominant species (relative cover, frequency): *Terminalia aridicola* (100, 25%), *Corymbia aparrerinja* (95, 25%), *Terminalia aridicola* subsp. *aridicola* (71, 25%), *Brachychiton collinus* (27, 50%), *Eucalyptus leucophylla* (25, 25%)

Frequent species (cover, frequency): *Brachychiton collinus* (2, 50%), *Acacia monticola* (1, 25%), *Atalaya hemiglaucha* (25%), *Corymbia aparrerinja* (2, 25%), *Eucalyptus leucophloia* subsp. *euroa* (1, 25%), *Eucalyptus leucophylla* (1, 25%), *Terminalia aridicola* (7, 25%), *Terminalia aridicola* subsp. *aridicola* (5, 25%)

#### Stratum: Shrub 1

Height avg. = 2.4m, range 1.8-3m, 3 sites

Crown cover avg. = 8.3%, range 0.0-17.0%, 3 sites

Dominant species (relative cover, frequency): *Terminalia aridicola* subsp. *aridicola* (100, 25%), *Acacia monticola* (100, 25%), *Acacia chisholmii* (88, 25%), *Eremophila latrobei* (12, 25%)

Frequent species (cover, frequency): *Acacia chisholmii* (15, 25%), *Acacia monticola* (8, 25%), *Eremophila latrobei* (2, 25%), *Terminalia aridicola* subsp. *aridicola* (1, 25%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 1.2m, range 1.2-1.2m, 2 sites****Crown cover avg. = 0.5%, range 0.0-1.0%, 2 sites**

*Dominant species (relative cover, frequency): Senna artemisioides subsp. helmsii (100, 25%), Senna notabilis (62, 25%), Trema tomentosa (6, 25%), Ptilotus fusiformis (6, 25%), Hibiscus leptocladus (6, 25%)*

*Frequent species (cover, frequency): Cleome viscosa (25%), Dodonaea stenophylla (25%), Eremophila longifolia (25%), Hibiscus leptocladus (25%), Ptilotus fusiformis (25%), Senna artemisioides subsp. helmsii (25%), Senna notabilis (1, 25%), Trema tomentosa (25%)*

**Stratum: Ground****Height avg. = 0.4m, range 0.2-0.5m, 4 sites****PFC avg. = 19.5%, range 9-34%, 4 sites**

*Dominant species (relative cover, frequency): Triodia pungens (54, 50%), Cenchrus pennisetiformis\* (29, 25%), Aristida contorta (29, 25%), Triodia bitextura (28, 25%), Cleome viscosa (15, 75%)*

*Frequent species (cover, frequency): GRAMINOIDs: Eriachne mucronata (4, 75%), Themeda triandra (1, 75%), Aristida longicollis (50%), Cymbopogon ambiguus (2, 50%), Heteropogon contortus (2, 50%), Triodia pungens (10, 50%), Aristida contorta (4, 25%), Aristida holathera var. holathera (3, 25%), Aristida inaequiglumis (25%), Aristida indet. (25%), Aristida pruinosa (25%), Bulbostylis barbata (25%), Cenchrus pennisetiformis\* (5, 25%), Cymbopogon bombycinus (25%), Digitaria brownii (25%), Digitaria ctenantha (25%), Digitaria gibbosa (1, 25%), Enneapogon indet. (1, 25%), Enneapogon lindleyanus (1, 25%), Enneapogon polyphyllus (5, 25%), Fimbristylis bisumbellata (2, 25%), Melinis repens\* (25%), Mnesithea formosa (25%), Paspalidium rarum (25%), Sehima nervosum (25%), Triodia bitextura (10, 25%)*

*FORBS: Boerhavia indet. (75%), Cleome viscosa (2, 75%), Sida indet. (75%), Carissa lanceolata (50%), Cucumis argenteus (50%), Heliotropium ballii (50%), Heliotropium tenuifolium (50%), Tinospora smilacina (50%), Abutilon hannii (25%), Achyranthes aspera (25%), Amaranthus undulatus (25%), Bidens pilosa\* (25%), Bonamia media (25%), Cajanus acutifolius (25%), Cheilanthes indet. (25%), Corchorus sericeus (25%), Corchorus sidoides (1, 25%), Cucumis melo (25%), Cyanthillium cinereum (25%), Dodonaea lanceolata var. lanceolata (25%), Eucalyptus leucophloia subsp. euroa (25%), Euphorbia indet. (25%), Evolvulus alsinoides var. decumbens (25%), Flueggea leucopyrus (25%), Hibiscus sturtii (25%), Hybanthus indet. (25%), Indigofera hirsuta (25%), Indigofera linifolia (25%), Phyllanthus indet. (25%), Portulaca oleracea\* (25%), Pterocaulon serrulatum (25%), Ptilotus fusiformis (25%), Ptilotus obovatus (1, 25%), Senna notabilis (25%), Senna planitiicola (25%), Sesbania benthamiana (25%), Sida fibulifera (25%), Solanum echinatum (25%), Solanum quadriloculatum (25%), Trichodesma zeylanicum (25%), Triumfetta plumigera (25%), Waltheria indica (25%), Xenostegia tridentata (25%), Zornia muriculata (25%)*

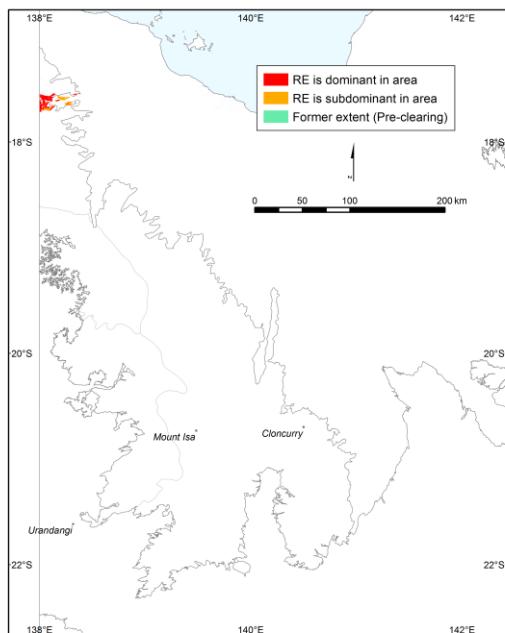
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.12.7x1: Mixed woodland on rounded volcanic hills



**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 14,152 14,152 100.00%

**Species recorded:** Total: 36; woody: 11; ground: 28; Avg. spp./site: 36.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 2.8 m<sup>2</sup>/ha, range: 2.8 - 3 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low woodland: 100%, 1 site(s)

**Representative sites:** 60735.

#### Stratum: Tree 1

**Height avg. = 8.0m, 1 site**

**Crown cover avg. = 30.0%, 1 site**

*Dominant species (relative cover, frequency): Lysiphyllo cunnighamii (30, 100%), Corymbia capricornia (27, 100%), Erythrophleum chlorostachys (23, 100%), Eucalyptus whitei (10, 100%), Cochlospermum gregorii (10, 100%)*

*Frequent species (cover, frequency): Cochlospermum gregorii (3, 100%), Corymbia capricornia (8, 100%), Erythrophleum chlorostachys (7, 100%), Eucalyptus whitei (3, 100%), Lysiphyllo cunnighamii (9, 100%)*

#### Stratum: Tree 2

**Height avg. = 4.0m, 1 site**

**Crown cover avg. = 6.0%, 1 site**

*Dominant species (relative cover, frequency): Terminalia canescens (32, 100%), Eucalyptus whitei (32, 100%), Erythrophleum chlorostachys (32, 100%), Lysiphyllo cunnighamii (2, 100%), Corymbia capricornia (2, 100%)*

*Frequent species (cover, frequency): Corymbia capricornia (100%), Erythrophleum chlorostachys (2, 100%), Eucalyptus whitei (2, 100%), Lysiphyllo cunnighamii (100%), Terminalia canescens (2, 100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 1.2m, 1 site****Crown cover avg. = 4.0%, 1 site**

*Dominant species (relative cover, frequency): Terminalia canescens (43, 100%), Petalostigma quadriloculare (43, 100%), Lysiphyllo cunnighamii (2, 100%), Erythrophleum chlorostachys (2, 100%), Corymbia capricornia (2, 100%)*

*Frequent species (cover, frequency): Abutilon hannii (100%), Abutilon indet. (100%), Acacia limbata (100%), Atalaya hemiglaucia (100%), Corymbia capricornia (100%), Erythrophleum chlorostachys (100%), Lysiphyllo cunnighamii (100%), Petalostigma quadriloculare (2, 100%), Terminalia canescens (2, 100%)*

**Stratum: Ground****Height avg. = 0.5m, 1 site****PFC avg. = 41.0%, 1 site**

*Dominant species (relative cover, frequency): Chrysopogon fallax (47, 100%), Scleria brownii (18, 100%), Petalostigma quadriloculare (7, 100%), Abutilon indet. (4, 100%), Bonamia media (4, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Bulbostylis barbata (100%), Chrysopogon fallax (21, 100%), Eriachne ciliata (1, 100%), Eriachne mucronata (100%), Schizachyrium fragile (100%), Scleria brownii (8, 100%), Sehima nervosum (1, 100%), Setaria surgens (100%), Themeda triandra (100%)*

*FORBS: Abutilon hannii (2, 100%), Abutilon indet. (2, 100%), Bonamia media (2, 100%), Corchorus sericeus (100%), Crotalaria novae-hollandiae (100%), Cucumis melo (100%), Flueggea virosa subsp. melanthesoides (100%), Galactia tenuiflora var. macrantha (2, 100%), Heliotropium cunnighamii (100%), Indigofera linnaei (100%), Marsdenia viridiflora subsp. tropica (100%), Melhania oblongifolia (1, 100%), Petalostigma quadriloculare (3, 100%), Pterocaulon serrulatum var. velutinum (100%), Ptilotus corymbosus (100%), Solanum echinatum (100%), Waltheria indica (100%), Zornia muriculata (100%)*

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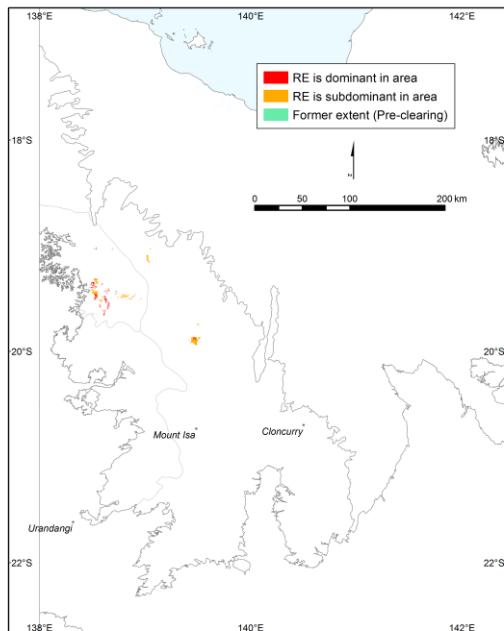
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.10: Mixed tussock grassland on shallow alluvium



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 6,014 6,011 99.96%

Species recorded: Total: 66; woody: 3; ground: 66; Avg. spp./site: 28.3; std dev.: 7.8, 3 site(s)

Basal area: 0

Structural formation: Tussock grassland: 67%; closed-tussock grassland: 33%, 3 site(s)

Representative sites: 19425, 59636, 59637.

#### Stratum: Emergent

Height avg. = 5.3m, range 1.5-9m, 2 sites

Crown cover avg. = 0.0%, range 0.0-0.0%, 2 sites

Dominant species (relative cover, frequency): *Vachellia farnesiana*\* (67, 67%), *Vachellia sutherlandii* (33, 33%), *Carissa lanceolata* (33, 33%)

Frequent species (cover, frequency): *Vachellia farnesiana*\* (67%), *Carissa lanceolata* (33%), *Vachellia sutherlandii* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.6m, range 0.4-0.8m, 3 sites****PFC avg. = 74.0%, range 52-100%, 3 sites**

Dominant species (relative cover, frequency): *Eulalia aurea* (33, 100%), *Dichanthium fecundum* (30, 33%), *Astrebla pectinata* (28, 33%), *Brachyachne convergens* (26, 67%), *Iseilema fragile* (17, 67%)

Frequent species (cover, frequency): GRAMINOIDs: *Eulalia aurea* (23, 100%), *Aristida latifolia* (67%), *Brachyachne convergens* (17, 67%), *Iseilema fragile* (16, 67%), *Panicum laevinode* (67%), *Astrebla elymoides* (8, 33%), *Astrebla lappacea* (33%), *Astrebla pectinata* (20, 33%), *Bothriochloa ewartiana* (5, 33%), *Bothriochloa* indet. (33%), *Chrysopogon fallax* (33%), *Cyperus biflex* (33%), *Dichanthium fecundum* (30, 33%), *Enneapogon* indet. (33%), *Iseilema macratherum* (2, 33%), *Sarga* indet. (33%), *Sehima nervosum* (33%), *Sporobolus caroli* (33%)

FORBS: *Crotalaria* indet. (2, 67%), *Crotalaria medicaginea* (1, 67%), *Desmodium* indet. (1, 67%), *Flemingia* indet. (67%), *Heliotropium* indet. (67%), *Hibiscus verdcourtii* (67%), *Indigofera* indet. (67%), *Malvastrum americanum* (1, 67%), *Phyllanthus* indet. (67%), *Ptilotus spicatus* (67%), *Rhynchosia minima* (3, 67%), *Senna planitiicola* (67%), *Abelmoschus ficulneus* (33%), *Abutilon malvifolium* (33%), *Aeschynomene indica* (33%), *Alysicarpus muelleri* (1, 33%), *Atalaya hemiglaucha* (33%), *Boerhavia* indet. (33%), *Commelina ensifolia* (33%), *Convolvulaceae* indet. (1, 33%), *Corchorus trilocularis* (1, 33%), *Crotalaria dissitiflora* subsp. *rugosa* (2, 33%), *Crotalaria medicaginea* var. *neglecta* (33%), *Crotalaria montana* (33%), *Cucumis* indet. (33%), *Cucumis melo* (33%), *Desmodium muelleri* (33%), *Gomphrena breviflora* (33%), *Goodenia lunata* (33%), *Goodenia strangfordii* (33%), *Ipomoea lonchophylla* (33%), *Melhania oblongifolia* (33%), *Neptunia gracilis forma gracilis* (2, 33%), *Neptunia* indet. (33%), *Neptunia monosperma* (3, 33%), *Ocimum caryophyllum* (2, 33%), *Phyllanthus lacunarius* (33%), *Phyllanthus maderaspatensis* (33%), *Portulaca* sp. (Rockhampton Downs S.T. Blake 17854) (33%), *Sida acuta*\* (33%), *Sida fibulifera* (33%), *Sida spinosa*\* (33%), *Spermacoce argillacea* (33%), *Stemodia glabella* (33%), *Streptoglossa* indet. (33%), *Stylosanthes* indet. (33%), *Vachellia sutherlandii* (33%), *Vigna* indet. (33%)

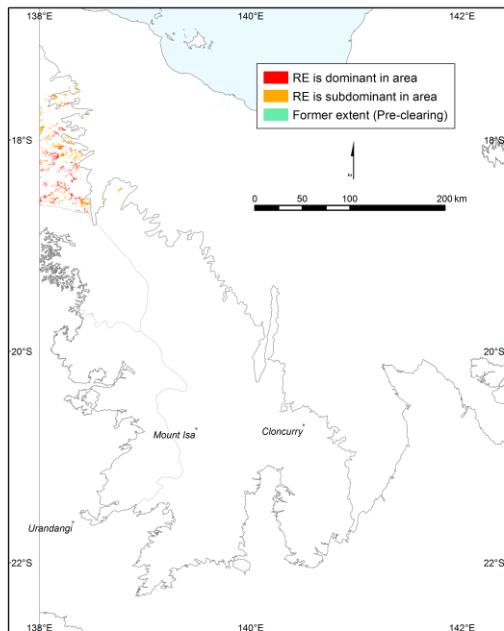
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.11: Eucalyptus chlorophylla open woodland on alluvium



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 19,154 19,117 99.81%

**Species recorded:** Total: 79; woody: 16; ground: 65; Avg. spp./site: 25.0; std dev.: 12.1, 4 site(s)

**Basal area:** Avg./site: 1.8 m<sup>2</sup>/ha, range: 0.5 - 3 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 4 site(s)

**Structural formation:** Low open-woodland: 75%; open-woodland: 25%, 4 site(s)

**Representative sites:** 40145, 40265, 40564, 43476.

#### Stratum: Tree 1

**Height avg. = 8.8m, range 5-13m, 4 sites**

**Crown cover avg. = 15.3%, range 10.0-18.0%, 4 sites**

*Dominant species (relative cover, frequency): Eucalyptus chlorophylla (77, 100%), Eucalyptus pruinosa subsp. pruinosa (38, 50%), Erythrophleum chlorostachys (18, 25%)*

*Frequent species (cover, frequency): Eucalyptus chlorophylla (12, 100%), Eucalyptus pruinosa subsp. pruinosa (6, 50%), Erythrophleum chlorostachys (3, 25%)*

#### Stratum: Tree 2

**Height avg. = 3.8m, range 3-5.3m, 3 sites**

**Crown cover avg. = 3.0%, range 0.0-7.0%, 3 sites**

*Dominant species (relative cover, frequency): Erythrophleum chlorostachys (56, 25%), Eucalyptus pruinosa subsp. pruinosa (54, 50%), Melaleuca stenostachya (50, 25%), Eucalyptus chlorophylla (39, 50%), Melaleuca nervosa (4, 25%)*

*Frequent species (cover, frequency): Eucalyptus chlorophylla (1, 50%), Eucalyptus pruinosa subsp. pruinosa (3, 50%), Acacia platycarpa (25%), Erythrophleum chlorostachys (2, 25%), Melaleuca nervosa (25%), Melaleuca stenostachya (25%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.9m, range 0.8-3m, 3 sites****Crown cover avg. = 1.7%, range 0.0-3.0%, 3 sites**

Dominant species (relative cover, frequency): *Dodonaea hispidula* var. *hispida* (50, 25%), *Atalaya hemiglaaca* (50, 25%), *Acacia phlebocarpa* (47, 25%), *Lysiphylum cunninghamii* (45, 25%), *Eucalyptus chlorophylla* (24, 50%)

Frequent species (cover, frequency): *Eucalyptus chlorophylla* (1, 50%), *Acacia hammondii* (1, 25%), *Acacia phlebocarpa* (2, 25%), *Acacia tropica* (25%), *Atalaya hemiglaaca* (25%), *Carissa lanceolata* (1, 25%), *Dodonaea hispidula* var. *hispida* (25%), *Dodonaea oxyptera* (25%), *Flueggea virosa* subsp. *melanthesoides* (25%), *Lysiphylum cunninghamii* (1, 25%), *Petalostigma quadriloculare* (25%)

**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.5m, 4 sites****PFC avg. = 55.3%, range 28-87%, 4 sites**

Dominant species (relative cover, frequency): *Eriachne obtusa* (75, 25%), *Triodia pungens* (41, 100%), *Eragrostis cumingii* (20, 50%), *Polymeria lanata* (20, 25%), *Eulalia aurea* (17, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Triodia pungens* (17, 100%), *Schizachyrium fragile* (1, 75%), *Aristida hygrometrica* (6, 50%), *Aristida ingrata* (2, 50%), *Aristida pruinosa* (1, 50%), *Bulbostylis barbata* (1, 50%), *Eragrostis cumingii* (10, 50%), *Eulalia aurea* (12, 50%), *Fimbristylis* indet. (1, 50%), *Bothriochloa ewartiana* (25%), *Chrysopogon fallax* (25%), *Cyperus aquatilis* (25%), *Dichanthium* indet. (25%), *Digitaria brownii* (25%), *Eragrostis* indet. (25%), *Eriachne armitii* (25%), *Eriachne obtusa* (65, 25%), *Mnesithea formosa* (3, 25%), *Perotis rara* (25%), *Sehima nervosum* (2, 25%), *Sporobolus australasicus* (25%), *Yakirra australiensis* var. *australiensis* (25%), *Yakirra majuscula* (2, 25%)

FORBS: *Buchnera* indet. (1, 50%), *Evolvulus alsinoides* var. *villosicalyx* (50%), *Waltheria indica* (50%), *Acacia hammondii* (25%), *Blumea diffusa* (25%), *Blumea tenella* (25%), *Bonamia* indet. (25%), *Chamaecrista absus* var. *absus* (25%), *Crotalaria novae-hollandiae* subsp. *novae-hollandiae* (1, 25%), *Dodonaea oxyptera* (25%), *Eriocaulon pygmaeum* (25%), *Euphorbia coghlani* (25%), *Goodenia armitiana* (25%), *Gossypium australe* (25%), *Hibiscus sturtii* (25%), *Indigofera colutea* (25%), *Indigofera linifolia* (25%), *Indigofera linnaei* (25%), *Murdannia graminea* (25%), *Oldenlandia galiooides* (25%), *Oldenlandia* indet. (25%), *Phyllanthus* indet. (25%), *Phyllanthus virgatus* (25%), *Polycarphaea corymbosa* (25%), *Polygala longifolia* (25%), *Polymeria lanata* (10, 25%), *Portulaca bicolor* (25%), *Portulaca pilosa*\* (25%), *Pterocaulon* indet. (25%), *Pterocaulon serrulatum* (25%), *Rhamphicarpa australiensis* (25%), *Rotala diandra* (25%), *Spermacoce* indet. (25%), *Spermacoce latimarginata* (1, 25%), *Sphaeromorphaea littoralis* (25%), *Streptoglossa decurrents* (25%), *Stylium* indet. (25%), *Vigna lanceolata* (25%), *Zornia muriculata* subsp. *angustata* (25%), *Zornia prostrata* var. *prostrata* (25%)

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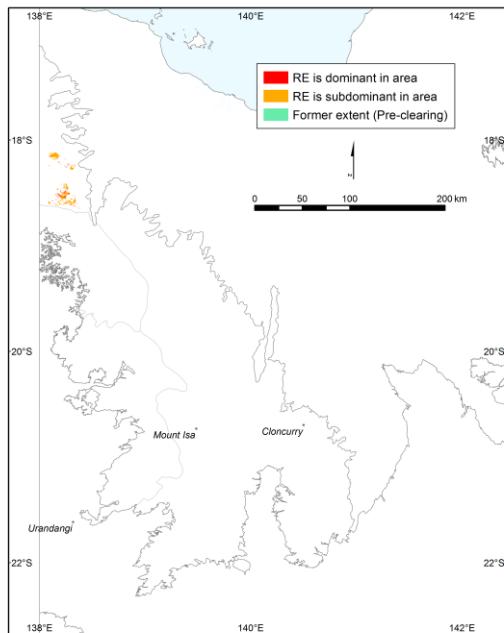
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.12: Terminalia bursarina open woodland on recent levees



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 3,119 3,119 100.00%

Species recorded: Total: 31; woody: 4; ground: 27; Avg. spp./site: 31.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 1.5 m<sup>2</sup>/ha, range: 1.5 - 2 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative sites: 40406.

#### Stratum: Emergent

Height avg. = 10.0m, 1 site

Crown cover avg. = 1.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia grandifolia* subsp. *grandifolia* (100, 100%)

Frequent species (cover, frequency): *Corymbia grandifolia* subsp. *grandifolia* (1, 100%)

#### Stratum: Tree 1

Height avg. = 6.5m, 1 site

Crown cover avg. = 15.0%, 1 site

Dominant species (relative cover, frequency): *Terminalia bursarina* (100, 100%)

Frequent species (cover, frequency): *Terminalia bursarina* (15, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Tree 2****Height avg. = 3.0m, 1 site****Crown cover avg. = 0.0%, 1 site***Dominant species (relative cover, frequency): Terminalia bursarina (100, 100%)**Frequent species (cover, frequency): Terminalia bursarina (100%)***Stratum: Shrub 1****Height avg. = 1.0m, 1 site****Crown cover avg. = 0.0%, 1 site***Dominant species (relative cover, frequency): Terminalia bursarina (33, 100%), Flueggea virosa subsp. melanthesoides (33, 100%), Capparis indet. (33, 100%)**Frequent species (cover, frequency): Capparis indet. (100%), Flueggea virosa subsp. melanthesoides (100%), Terminalia bursarina (100%)***Stratum: Ground****Height avg. = 0.7m, 1 site****PFC avg. = 53.0%, 1 site***Dominant species (relative cover, frequency): Triodia pungens (40, 100%), Aristida hygrometrica (14, 100%), Rhynchospora longisetis (10, 100%), Chrysopogon fallax (10, 100%), Eriachne obtusa (10, 100%)**Frequent species (cover, frequency): GRAMINOIDs: Aristida hygrometrica (7, 100%), Chrysopogon fallax (5, 100%), Elytrophorus spicatus (100%), Eragrostis tenellula (100%), Eriachne armitii (3, 100%), Eriachne obtusa (5, 100%), Eriachne sp. (Dugald River B.K.Simon + 3007) (100%), Eulalia aurea (1, 100%), Fimbristylis corynocarya (100%), Fimbristylis littoralis (1, 100%), Fimbristylis tetragona (100%), Mnesithea formosa (100%), Rhynchospora longisetis (5, 100%), Schizachyrium perplexum (100%), Triodia pungens (20, 100%)**FORBS: Calandrinia uniflora (100%), Cheilanthes indet. (100%), Crotalaria medicaginea (100%), Euphorbia indet. (100%), Heliotropium tenuifolium (100%), Hibiscus meraukensis (100%), Kohautia australiensis (100%), Ptilotus fusiformis (100%), Ptilotus spicatus (100%), Rhamphicarpa australiensis (100%), Tephrosia brachyodon var. longifolia (1, 100%), Waltheria indica (100%)*

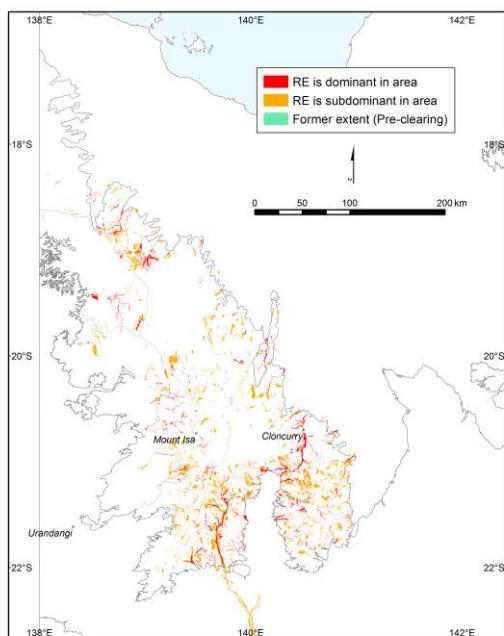

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.13a: Eucalyptus leucophylla and/or Corymbia terminalis woodland on levees and minor drainage lines



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 149,050 148,199 99.43%

Species\_recorded: Total: 153; woody: 37; ground: 120; Avg. spp./site: 28.9; std dev.: 11.3, 10 site(s)

Basal area: Avg./site: 3.3 m<sup>2</sup>/ha, range: 0.8 - 9 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 10 site(s)

Structural formation: Low woodland: 40%; woodland: 20%; open-woodland: 20%; low open-woodland: 20%, 10 site(s)

Representative\_sites: 19330, 19339, 19355, 19390, 19460, 19499, 23416, 40511, 42135, 42142.

#### Stratum: Tree 1

Height avg. = 8.4m, range 5-12m, 10 sites

Crown cover avg. = 23.1%, range 8.0-43.0%, 10 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (68, 100%), *Corymbia terminalis* (32, 60%), *Eucalyptus camaldulensis* (25, 30%), *Corymbia aparrerinja* (5, 60%)

Frequent species (cover, frequency): *Eucalyptus leucophylla* (17, 100%), *Corymbia aparrerinja* (1, 60%), *Corymbia terminalis* (8, 60%), *Eucalyptus camaldulensis* (3, 30%), *Grevillea striata* (20%), *Lysiphyllyum cunninghamii* (20%), *Atalaya hemiglaauca* (10%), *Corymbia confertiflora* (3, 10%), *Lophostemon grandiflorus* subsp. *riparius* (1, 10%), *Lysiphyllyum gilvum* (10%), *Parsonia indet.* (10%), *Tinospora smilacina* (10%)

#### Stratum: Tree 2

Height avg. = 5.3m, range 5-5.5m, 2 sites

Crown cover avg. = 11.0%, range 10.0-12.0%, 2 sites

Frequent species (cover, frequency): *Terminalia aridicola* (3, 20%), *Atalaya hemiglaauca* (5, 10%), *Eucalyptus pruinosa* subsp. *pruinosa* (12, 10%), *Tinospora smilacina* (10%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 2.4m, range 1.5-4m, 9 sites****Crown cover avg. = 6.8%, range 1.0-27.0%, 9 sites**

Dominant species (relative cover, frequency): *Carissa lanceolata* (51, 30%), *Acacia chisholmii* (47, 30%), *Vachellia farnesiana\** (45, 30%)

Frequent species (cover, frequency): *Acacia chisholmii* (3, 30%), *Carissa lanceolata* (2, 30%), *Vachellia farnesiana\** (2, 30%), *Eucalyptus leucophylla* (2, 20%), *Flueggea virosa* subsp. *melanthesoides* (8, 20%), *Acacia cambagei* (2, 10%), *Acacia colei* var. *colei* (1, 10%), *Acacia cowleana* (10%), *Acacia hemignosta* (10%), *Acacia holosericea* (8, 10%), *Atalaya hemiglaucha* (1, 10%), *Brachychiton collinus* (10%), *Corymbia terminalis* (1, 10%), *Dolichandrone heterophylla* (10%), *Eremophila longifolia* (10%), *Eucalyptus pruinosa* subsp. *pruinosa* (1, 10%), *Flueggea leucopyrus* (10%), *Hibiscus meraukensis* (10%), *Lysiphylum cunninghamii* (1, 10%), *Melaleuca bracteata* (20, 10%), *Sesbania benthamiana* (5, 10%), *Vachellia bidwillii* (10%)

**Stratum: Shrub 2****Height avg. = 1.4m, range 0.9-1.8m, 4 sites****Crown cover avg. = 11.8%, range 3.0-25.0%, 4 sites**

Dominant species (relative cover, frequency): *Carissa lanceolata* (43, 40%), *Gossypium australe* (20, 30%)

Frequent species (cover, frequency): *Carissa lanceolata* (5, 40%), *Gossypium australe* (1, 30%), *Acacia colei* var. *colei* (10%), *Acacia cowleana* (10%), *Acacia hilliana* (10%), *Acacia holosericea* (10%), *Acacia orthocarpa* (10%), *Corymbia terminalis* (10%), *Dolichandrone heterophylla* (1, 10%), *Eremophila longifolia* (10%), *Flueggea leucopyrus* (4, 10%), *Flueggea virosa* subsp. *melanthesoides* (5, 10%), *Grewia retusifolia* (10%), *Hibiscus meraukensis* (10%), *Pittosporum indet.* (10%), *Senna planititcola* (10%), *Vachellia farnesiana\** (10%)

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.7m, range 0.25-1m, 10 sites****PFC avg. = 74.2%, range 40-99%, 10 sites**

*Dominant species (relative cover, frequency): Cenchrus pennisetiformis\* (43, 70%), Bothriochloa ewartiana (35, 30%), Triodia pungens (22, 30%), Eulalia aurea (15, 40%), Heteropogon contortus (14, 70%)*

*Frequent species (cover, frequency): GRAMINOIDs: Cenchrus pennisetiformis\* (32, 70%), Heteropogon contortus (11, 70%), Aristida pruinosa (4, 60%), Chrysopogon fallax (6, 50%), Themeda triandra (4, 50%), Enneapogon polypylus (1, 40%), Eragrostis cumingii (1, 40%), Eulalia aurea (12, 40%), Sporobolus australasicus (40%), Bothriochloa ewartiana (30, 30%), Cenchrus setigerus\* (11, 30%), Triodia pungens (11, 30%), Bulbostylis barbata (20%), Chloris divaricata (3, 20%), Dichanthium secundum (24, 20%), Digitaria brownii (1, 20%), Enneapogon lindleyanus (20%), Eragrostis indet. (20%), Melinis repens\* (1, 20%), Panicum decompositum (1, 20%), Perotis rara (1, 20%), Setaria surgens (20%), Aristida calycina (3, 10%), Aristida contorta (1, 10%), Aristida holathera var. holathera (2, 10%), Aristida hygrometrica (10%), Aristida indet. (5, 10%), Aristida longicollis (2, 10%), Arundinella setosa (15, 10%), Chloris inflata\* (2, 10%), Chloris pectinata (10%), Chloris virgata\* (2, 10%), Cyperus cunninghamii subsp. cheradicus (10%), Cyperus ixiocarpus (10%), Dactyloctenium radulans (10%), Dichanthium sericeum (5, 10%), Digitaria ciliaris\* (10%), Enneapogon nigricans (1, 10%), Enteropogon ramosus (2, 10%), Eragrostis elongata (1, 10%), Eragrostis minor\* (10%), Eriachne obtusa (10%), Fimbristylis indet. (10%), Mnesithea formosa (2, 10%), Oxychloris scariosa (1, 10%), Panicum laevinode (10%), Paspalidium constrictum (10%), Schizachyrium fragile (10%), Schizachyrium indet. (1, 10%), Sehima nervosum (20, 10%), Triodia longiceps (5, 10%), Tripogon loliiformis (10%)*

*FORBS: Indigofera colutea (60%), Indigofera linifolia (60%), Alternanthera indet. (40%), Crotalaria medicaginea (40%), Boerhavia indet. (30%), Cleome viscosa (30%), Melhania oblongifolia (30%), Portulaca pilosa\* (30%), Tinospora smilacina (30%), Capparis lasiantha (20%), Euphorbia indet. (20%), Evolvulus alsinoides var. villosoalyx (20%), Malvastrum americanum (1, 20%), Rhynchosia minima (20%), Sida fibulifera (20%), Tephrosia brachyodon (1, 20%), Waltheria indica (1, 20%), Abutilon hannii (10%), Abutilon indet. (10%), Abutilon oxycarpum (10%), Acanthospermum hispidum\* (10%), Achyranthes aspera (10%), Alternanthera denticulata (10%), Amyema quandang (10%), Bidens indet. (10%), Bonamia indet. (10%), Bonamia media (10%), Cucumis argenteus (10%), Cucumis melo (10%), Euphorbia hirta\* (10%), Euphorbia schultzii var. comans (10%), Evolvulus alsinoides var. decumbens (10%), Evolvulus alsinoides var. sericeus (10%), Galactia indet. (10%), Gomphrena indet. (10%), Goodenia fascicularis (10%), Goodenia indet. (10%), Heliotropium tenuifolium (10%), Hibiscus indet. (10%), Hibiscus meraukensis (10%), Indigofera hirsuta (10%), Indigofera linnaei (10%), Ipomoea polymorpha (10%), Neptunia dimorphantha (10%), Phyllanthus indet. (10%), Polycarpaea corymbosa (10%), Polygala pterocarpa (10%), Polymeria ambigua (10%), Polymeria pusilla (10%), Pterocaulon serrulatum (10%), Ptilotus fusiformis (10%), Sida cleisocalyx (10%), Sida platycalyx (10%), Sida rohlenae subsp. rohlenae (10%), Sida spinosa\* (10%), Sida trichopoda (10%), Solanum quadriloculatum (10%), Spermacoce dolichosperma (10%), Stemodia viscosa (10%), Streptoglossa indet. (10%), Stylosanthes hamata\* (10%), Tephrosia indet. (1, 10%), Trianthema triquetra (10%), Tribulus terrestris (10%), Trichodesma zeylanicum (10%), Vachellia bidwillii (10%), Vachellia farnesiana\* (10%), Vigna indet. (10%)*

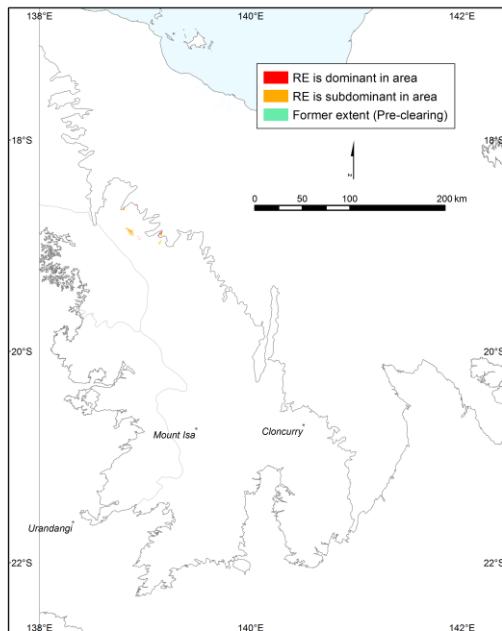
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*Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).*

*Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.*

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.13b: *Eucalyptus leucophylla* open forest on recent alluvium



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 806 803 99.57%

**Species recorded:** Total: 34; woody: 10; ground: 24; Avg. spp./site: 34.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 7.0 m<sup>2</sup>/ha, range: 7.0 - 7 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Open-forest: 100%, 1 site(s)

**Representative sites:** 40526.

#### Stratum: Tree 1

**Height avg. = 15.0m, 1 site**

**Crown cover avg. = 73.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus leucophylla (64, 100%), Corymbia terminalis (36, 100%)*

*Frequent species (cover, frequency): Corymbia aparrerinja (100%), Corymbia terminalis (26, 100%), Eucalyptus leucophylla (47, 100%)*

#### Stratum: Tree 2

**Height avg. = 7.0m, 1 site**

**Crown cover avg. = 5.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus leucophylla (91, 100%), Corymbia terminalis (9, 100%)*

*Frequent species (cover, frequency): Corymbia terminalis (100%), Eucalyptus leucophylla (1, 100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 2.5m, 1 site****Crown cover avg. = 37.0%, 1 site***Dominant species (relative cover, frequency): Flueggea virosa subsp. melanthesoides (98, 100%)**Frequent species (cover, frequency): Acacia holosericea (100%), Atalaya hemiglaucha (100%), Eucalyptus leucophylla (100%), Flueggea virosa subsp. melanthesoides (36, 100%), Gossypium australe (100%), Grewia retusifolia (100%), Lysiphyllo cunninghamii (100%), Vachellia farnesiana\* (100%)***Stratum: Ground****Height avg. = 0.8m, 1 site****PFC avg. = 83.0%, 1 site***Dominant species (relative cover, frequency): Dichanthium fecundum (85, 100%), Heteropogon contortus (6, 100%), Chrysopogon fallax (6, 100%)**Frequent species (cover, frequency): GRAMINOIDs: Aristida inaequiglumis (100%), Chrysopogon fallax (5, 100%), Dichanthium fecundum (70, 100%), Dichanthium sericeum (100%), Heteropogon contortus (5, 100%), Setaria apiculata (100%), Sporobolus australasicus (100%)**FORBS: Abutilon hannii (100%), Acanthospermum hispidum\* (100%), Alternanthera sp. (Mt Isa R.L.Speccht+ 49) (100%), Chamaecrista absus var. absus (100%), Cucumis melo (100%), Euphorbia hirta\* (100%), Galactia indet. (100%), Hibiscus meraukensis (100%), Malvastrum americanum (100%), Marsdenia viridiflora subsp. tropica (100%), Melhania oblongifolia (100%), Physalis angulata\* (100%), Polymeria ambigua (100%), Rhynchosia minima (100%), Senna planitiicola (100%), Sida acuta\* (100%), Vigna lanceolata var. lanceolata (100%)*


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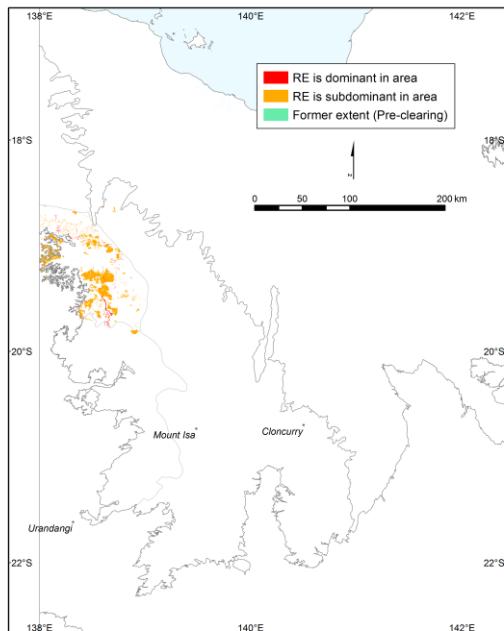
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.14: Corymbia terminalis low open woodland on levees of minor streams in limestone country



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 15,217 15,209 99.94%

**Species recorded:** Total: 59; woody: 15; ground: 36; Avg. spp./site: 45.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 1.8 m<sup>2</sup>/ha, range: 1.8 - 2 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low open-woodland: 100%, 2 site(s)

**Representative sites:** 19470, 29425.

#### Stratum: Tree 1

**Height avg. = 11.0m, range 8-14m, 2 sites**

**Crown cover avg. = 15.0%, 1 site**

*Dominant species (relative cover, frequency): Corymbia terminalis (50, 100%), Lysiphyllo cuninghamii (1, 50%), Lophostemon grandiflorus subsp. riparius (, 50%)*

*Frequent species (cover, frequency): Corymbia terminalis (15, 100%), Lophostemon grandiflorus subsp. riparius (50%), Lysiphyllo cuninghamii (50%)*

#### Stratum: Tree 2

**Height avg. = 3.5m, 1 site**

**Crown cover avg. = 2.0%, 1 site**

*Dominant species (relative cover, frequency): Terminalia aridicola (50, 50%), Eucalyptus leucophylla (50, 50%)*

*Frequent species (cover, frequency): Eucalyptus leucophylla (1, 50%), Terminalia aridicola (1, 50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.6m, 1 site****Crown cover avg. = 13.0%, 1 site**

Dominant species (relative cover, frequency): *Abutilon leucopetalum* (95, 50%), *Hakea arborescens* (37, 50%), *Vachellia farnesiana\** (22, 50%), *Grewia retusifolia* (22, 50%), *Acacia colei* (15, 50%)

Frequent species (cover, frequency): *Dodonaea indet.* (100%), *Abutilon leucopetalum* (2, 50%), *Acacia colei* (2, 50%), *Carissa lanceolata* (50%), *Cycas indet.* (50%), *Grewia retusifolia* (3, 50%), *Hakea arborescens* (5, 50%), *Santalum lanceolatum* (50%), *Senna artemisioides* subsp. *helmsii* (50%), *Vachellia farnesiana\** (3, 50%)

**Stratum: Ground****Height avg. = 0.8m, 1 site****PFC avg. = 81.0%, 1 site**

Dominant species (relative cover, frequency): *Sehima nervosum* (37, 100%), *Themeda triandra* (15, 100%), *Chrysopogon fallax* (10, 100%), *Bothriochloa erwartiana* (7, 100%), *Triodia pungens* (7, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Bothriochloa erwartiana* (5, 100%), *Brachyachne convergens* (3, 100%), *Chrysopogon fallax* (7, 100%), *Dichanthium sericeum* subsp. *humilius* (100%), *Eulalia aurea* (1, 100%), *Heteropogon contortus* (5, 100%), *Iseilema vaginiflorum* (3, 100%), *Sarga timorense* (100%), *Sehima nervosum* (25, 100%), *Sporobolus australasicus* (100%), *Themeda triandra* (10, 100%), *Triodia pungens* (5, 100%)

FORBS: *Alysicarpus indet.* (100%), *Convolvulaceae indet.* (100%), *Crotalaria medicaginea* (100%), *Evolvulus alsinoides* var. *villosicalyx* (100%), *Flemingia indet.* (2, 100%), *Indigofera linifolia* (100%), *Marsdenia indet.* (100%), *Melhania oblongifolia* (100%), *Melochia pyramidata\** (100%), *Neptunia indet.* (100%), *Ocimum caryophyllum* (100%), *Periploca indet.* (100%), *Phyllanthus virgatus* (100%), *Polygala pterocarpa* (100%), *Ptilotus spicatus* (100%), *Rhynchosia minima* (100%), *Scaevola ovalifolia* (100%), *Sida fibulifera* (100%), *Sida trichopoda* (100%), *Spermacoce indet.* (100%), *Tephrosia* sp. (Mt Isa P.L.Harris 277) (100%)

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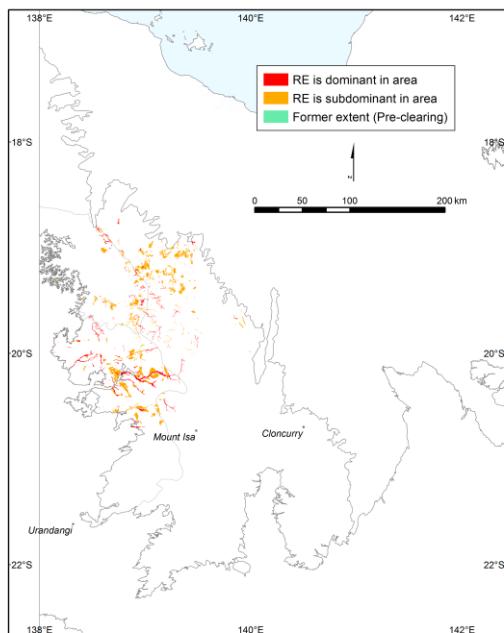
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.15: Eucalyptus pruinosa low woodland on recent alluvium



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 44,842 44,782 99.87%

**Species recorded:** Total: 63; woody: 13; ground: 51; Avg. spp./site: 37.5; std dev.: 3.5, 2 site(s)

**Basal area:** Avg./site: 2.3 m<sup>2</sup>/ha, range: 0.8 - 4 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 2 site(s)

**Structural formation:** Low woodland: 50%; low open-woodland: 50%, 2 site(s)

**Representative sites:** 59615, 59634.

#### Stratum: Tree 1

**Height avg. = 5.5m, range 4-7m, 2 sites**

**Crown cover avg. = 17.5%, range 14.0-21.0%, 2 sites**

*Dominant species (relative cover, frequency): Eucalyptus pruinosa subsp. pruinosa (100, 100%)*

*Frequent species (cover, frequency): Eucalyptus pruinosa subsp. pruinosa (18, 100%), Eucalyptus leucophloia subsp. euroa (50%)*

#### Stratum: Shrub 1

**Height avg. = 1.1m, range 1-1.2m, 2 sites**

**Crown cover avg. = 19.5%, range 15.0-24.0%, 2 sites**

*Dominant species (relative cover, frequency): Acacia chisholmii (74, 50%), Carissa lanceolata (45, 50%), Eucalyptus pruinosa subsp. pruinosa (15, 100%), Flueggea virosa subsp. melanthesoides (13, 50%), Gossypium australe (12, 50%)*

*Frequent species (cover, frequency): Atalaya hemiglaucha (1, 100%), Eucalyptus pruinosa subsp. pruinosa (3, 100%), Senna planitiicola (2, 100%), Acacia chisholmii (18, 50%), Acacia elachantha (50%), Acacia holosericea (50%), Acacia tenuissima (50%), Carissa lanceolata (7, 50%), Denhamia cunninghamii (50%), Flueggea virosa subsp. melanthesoides (2, 50%), Gossypium australe (3, 50%), Psydrax oleifolia (50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.5m, 2 sites****PFC avg. = 36.0%, range 24-48%, 2 sites**

Dominant species (relative cover, frequency): *Sida cleisocalyx* (69, 50%), *Triodia longiceps* (18, 100%), *Eragrostis cumingii* (12, 100%), *Bothriochloa ewartiana* (12, 100%), *Chrysopogon fallax* (11, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Bothriochloa ewartiana* (5, 100%), *Eragrostis cumingii* (6, 100%), *Fimbristylis dichotoma* (100%), *Heteropogon contortus* (3, 100%), *Perotis rara* (100%), *Sporobolus australasicus* (3, 100%), *Triodia longiceps* (9, 100%), *Aristida inaequiglumis* (50%), *Aristida pruinosa* (50%), *Brachyachne convergens* (50%), *Bulbostylis barbata* (50%), *Cenchrus pennisetiformis\** (50%), *Chloris divaricata* (50%), *Chrysopogon fallax* (3, 50%), *Cyperus betchei* subsp. *betchei* (50%), *Cyperus haspan* (50%), *Enneapogon purpurascens* (50%), *Eragrostis tenellula* (50%), *Eulalia aurea* (50%), *Panicum decompositum* (50%), *Schizachyrium fragile* (50%), *Themeda triandra* (50%), *Tripogon loliiformis* (50%)  
 FORBS: *Indigofera linnaei* (100%), *Melhania oblongifolia* (100%), *Abutilon hannii* (50%), *Abutilon* indet. (50%), *Alternanthera* sp. (Mt Isa R.L.Speccht+ 49) (50%), *Alysicarpus muelleri* (50%), *Ammannia multiflora* (50%), *Blumea tenella* (50%), *Boerhavia* indet. (50%), *Cheilanthes* indet. (50%), *Cleome viscosa* (50%), *Euphorbia* indet. (50%), *Evolvulus alsinoides* (50%), *Heliotropium tenuifolium* (50%), *Hibiscus meraukensis* (50%), *Indigofera colutea* (50%), *Indigofera linifolia* (50%), *Ipomoea eriocarpa* (50%), *Malvastrum americanum* (50%), *Marsdenia viridiflora* subsp. *tropica* (50%), *Pterocaulon serrulatum* (50%), *Rhynchosia minima* (50%), *Sida cleisocalyx* (18, 50%), *Sida fibulifera* (1, 50%), *Solanum* indet. (50%), *Stylosanthes* indet. (50%), *Waltheria indica* (50%), *Zornia* indet. (50%)

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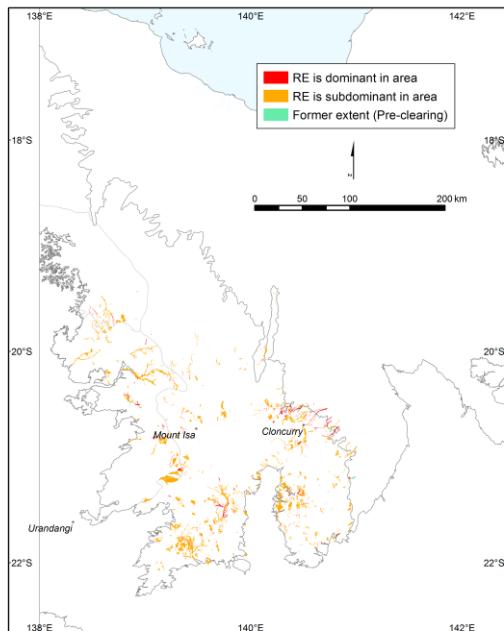
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.4a: *Acacia cambagei* low open woodland to woodland on alluvium



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 51,341 50,066 97.52%

Species recorded: Total: 43; woody: 4; ground: 39; Avg. spp./site: 16.3; std dev.: 6.6, 3 site(s)

Basal area: Avg./site: 5.7 m<sup>2</sup>/ha, range: 3.5 - 7 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 3 site(s)

Structural formation: Low woodland: 100%, 3 site(s)

Representative sites: 19501, 40874, 42123.

#### Stratum: Tree 1

Height avg. = 6.0m, range 5-7m, 3 sites

Crown cover avg. = 32.3%, range 20.0-42.0%, 3 sites

Dominant species (relative cover, frequency): *Acacia cambagei* (100, 100%)

Frequent species (cover, frequency): *Acacia cambagei* (32, 100%)

#### Stratum: Tree 2

Height avg. = 3.5m, 1 site

Crown cover avg. = 5.0%, 1 site

Dominant species (relative cover, frequency): *Acacia cambagei* (100, 33%)

Frequent species (cover, frequency): *Acacia cambagei* (5, 33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

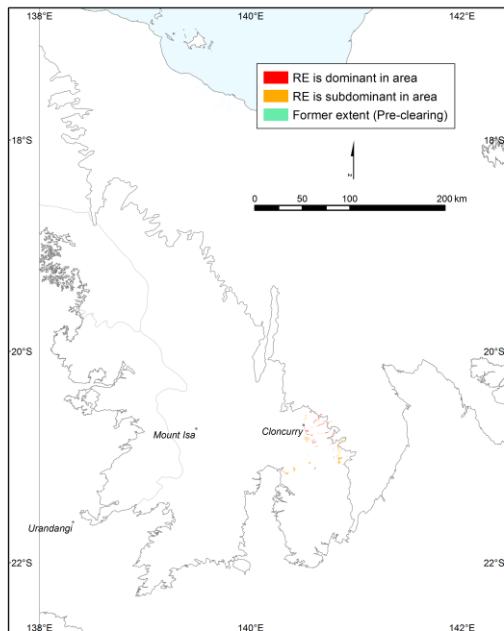
**Stratum: Shrub 1****Height avg. = 1.6m, range 1-2.5m, 3 sites****Crown cover avg. = 6.0%, range 3.0-12.0%, 3 sites***Dominant species (relative cover, frequency): Acacia cambagei (98, 100%), Senna artemisioides subsp. oligophylla (3, 33%), Carissa lanceolata (3, 33%), Eremophila mitchellii (1, 33%)**Frequent species (cover, frequency): Acacia cambagei (6, 100%), Carissa lanceolata (33%), Eremophila mitchellii (33%), Senna artemisioides subsp. oligophylla (33%)***Stratum: Shrub 2****Height avg. = 1.0m, 1 site****Crown cover avg. = 5.0%, 1 site***Dominant species (relative cover, frequency): Acacia cambagei (100, 33%)**Frequent species (cover, frequency): Acacia cambagei (5, 33%)***Stratum: Ground****Height avg. = 0.4m, range 0.2-0.75m, 3 sites****PFC avg. = 25.0%, range 3-54%, 3 sites***Dominant species (relative cover, frequency): Bothriochloa indet. (88, 33%), Echinochloa colona\* (41, 33%), Sporobolus actinocladus (28, 67%), Enteropogon ramosus (21, 33%), Astrebla pectinata (19, 33%)**Frequent species (cover, frequency): GRAMINOIDs: Brachyachne convergens (2, 67%), Sporobolus actinocladus (15, 67%), Tripogon loliiformis (67%), Aristida inaequiglumis (1, 33%), Astrebla pectinata (10, 33%), Bothriochloa indet. (3, 33%), Chrysopogon fallax (33%), Cyperus bifax (33%), Dactyloctenium radulans (33%), Dichanthium fecundum (1, 33%), Echinochloa colona\* (8, 33%), Enteropogon acicularis (33%), Enteropogon ramosus (4, 33%), Eragrostis desertorum (33%), Eragrostis xerophila (1, 33%), Iseilema vaginiflorum (33%), Sporobolus australasicus (1, 33%), Sporobolus caroli (1, 33%)**FORBS: Cleome viscosa (67%), Aeschynomene indica (33%), Alternanthera nodiflora (33%), Crotalaria medicaginea (33%), Hibiscus brachysiphonius (33%), Hibiscus verdcourtii (33%), Ipomoea coptica (33%), Malvastrum americanum (33%), Neptunia dimorphantha (33%), Phyllanthus indet. (33%), Portulaca indet. (33%), Ptilotus obovatus (1, 33%), Rhynchosia minima (33%), Rostellularia adscendens (33%), Sclerolaena anisacanthoides (2, 33%), Sclerolaena bicornis var. horrida (2, 33%), Sclerolaena lanicuspis (2, 33%), Sida fibulifera (2, 33%), Sida spinosa\* (33%), Sida trichopoda (33%), Trianthema triquetra (1, 33%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.4b: *Acacia cambagei* and *Eucalyptus leucophylla* low woodland



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 3,221      3,202      99.40%

**Species recorded:** Total: 31; woody: 8; ground: 23; Avg. spp./site: 31.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 5.3 m<sup>2</sup>/ha, range: 5.3 - 5 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low woodland: 100%, 1 site(s)

**Representative sites:** 19349.

#### Stratum: Tree 1

**Height avg. = 8.0m, 1 site**

**Crown cover avg. = 50.0%, 1 site**

*Dominant species (relative cover, frequency):* *Acacia cambagei* (60, 100%), *Eucalyptus leucophylla* (40, 100%)

*Frequent species (cover, frequency):* *Acacia cambagei* (30, 100%), *Corymbia terminalis* (100%), *Eucalyptus leucophylla* (20, 100%)

#### Stratum: Shrub 1

**Height avg. = 1.8m, 1 site**

**Crown cover avg. = 5.0%, 1 site**

*Dominant species (relative cover, frequency):* *Carissa lanceolata* (88, 100%), *Santalum lanceolatum* (3, 100%), *Psydrax indet.* (3, 100%), *Atalaya hemiglaucha* (3, 100%), *Acacia chisholmii* (3, 100%)

*Frequent species (cover, frequency):* *Acacia chisholmii* (100%), *Atalaya hemiglaucha* (100%), *Carissa lanceolata* (3, 100%), *Psydrax indet.* (100%), *Santalum lanceolatum* (100%)

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.6m, 1 site****PFC avg. = 75.0%, 1 site**

Dominant species (relative cover, frequency): *Cenchrus pennisetiformis\** (60, 100%), *Cenchrus setigerus\** (12, 100%), *Triodia longiceps* (12, 100%), *Cleome viscosa* (6, 100%), *Enneapogon polyphyllus* (4, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Cenchrus pennisetiformis\** (50, 100%), *Cenchrus setigerus\** (10, 100%), *Chloris virgata\** (1, 100%), *Dactyloctenium radulans* (100%), *Digitaria ctenantha* (100%), *Echinochloa indet.* (100%), *Enneapogon polyphyllus* (3, 100%), *Eragrostis ciliaris\** (100%), *Sporobolus australasicus* (1, 100%), *Triodia longiceps* (10, 100%)

FORBS: *Abutilon indet.* (100%), *Ammannia multiflora* (100%), *Boerhavia indet.* (2, 100%), *Cleome viscosa* (5, 100%), *Crotalaria medicaginea* (100%), *Euphorbia indet.* (100%), *Evolvulus alsinoides* var. *villosicalyx* (100%), *Indigofera colutea* (100%), *Indigofera linifolia* (100%), *Portulaca oleracea\** (100%), *Spermacoce indet.* (100%), *Trianthema triquetra* (100%), *Tribulus terrestris* (100%)

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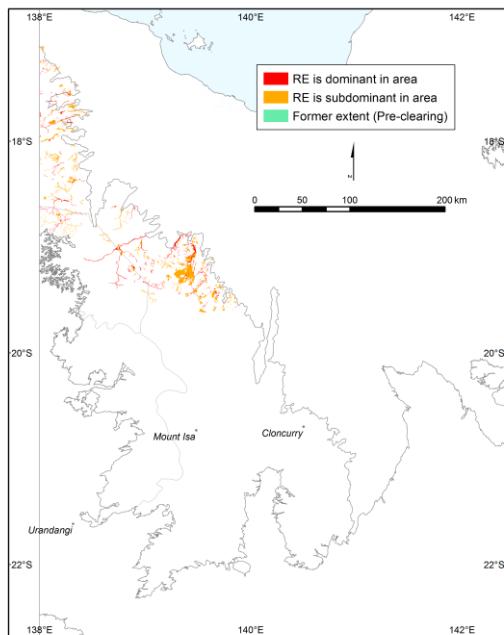
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.5: *Corymbia polycarpa*, *C. bella*, *C. grandifolia* and *Eucalyptus chlorophylla* in mixed woodlands on sandy levees in the north



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 39,484 39,449 99.91%

Species recorded: Total: 118; woody: 37; ground: 91; Avg. spp./site: 32.5; std dev.: 3.7, 6 site(s)

Basal area: Avg./site: 4.9 m<sup>2</sup>/ha, range: 3.0 - 8 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 6 site(s)

Structural formation: Woodland: 50%; open-woodland: 17%; open-forest: 17%; low open-woodland: 17%, 6 site(s)

Representative sites: 19462, 19473, 40144, 40569, 60705, 60736.

#### Stratum: Tree 1

Height avg. = 14.8m, range 7.5-20m, 6 sites

Crown cover avg. = 33.8%, range 10.0-56.0%, 6 sites

Dominant species (relative cover, frequency): *Corymbia bella* (61, 33%), *Corymbia polycarpa* (45, 50%), *Corymbia terminalis* (21, 67%)

Frequent species (cover, frequency): *Corymbia terminalis* (12, 67%), *Corymbia polycarpa* (6, 50%), *Corymbia bella* (30, 33%), *Corymbia confertiflora* (33%), *Atalaya hemiglaucha* (5, 17%), *Corymbia grandifolia* subsp. *grandifolia* (15, 17%), *Erythrophleum chlorostachys* (12, 17%), *Eucalyptus chlorophylla* (26, 17%), *Grevillea striata* (6, 17%), *Hakea arborescens* (3, 17%), *Lysiphyllo Cunninghamii* (12, 17%), *Ventilago viminalis* (17%)

#### Stratum: Tree 2

Height avg. = 7.6m, range 4-10m, 5 sites

Crown cover avg. = 17.2%, range 3.0-36.0%, 5 sites

Dominant species (relative cover, frequency): *Erythrophleum chlorostachys* (43, 33%), *Corymbia polycarpa* (35, 33%), *Hakea arborescens* (17, 33%), *Corymbia terminalis* (5, 33%)

Frequent species (cover, frequency): *Corymbia polycarpa* (4, 33%), *Corymbia terminalis* (2, 33%), *Erythrophleum chlorostachys* (5, 33%), *Hakea arborescens* (1, 33%), *Brachychiton diversifolius* subsp. *diversifolius* (17%), *Corymbia bella* (17%), *Corymbia pocillum* (4, 17%), *Denhamia cunninghamii* (17%), *Diospyros humilis* (8, 17%), *Eucalyptus chlorophylla* (15, 17%), *Eucalyptus pruinosa* subsp. *pruinosa* (11, 17%), *Lysiphyllo Cunninghamii* (22, 17%), *Terminalia hadleyana* subsp. *carpentariae* (3, 17%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Tree 3****Height avg. = 4.0m, 1 site****Crown cover avg. = 2.0%, 1 site**

*Frequent species (cover, frequency): Corymbia grandifolia subsp. grandifolia (17%), Corymbia polycarpa (1, 17%), Terminalia aridicola (17%), Terminalia canescens (1, 17%)*

**Stratum: Shrub 1****Height avg. = 2.1m, range 1.2-3.2m, 6 sites****Crown cover avg. = 20.3%, range 5.0-65.0%, 6 sites**

*Dominant species (relative cover, frequency): Flueggea virosa subsp. melanthesoides (30, 83%), Lysiphyllo cunninghamii (25, 67%), Terminalia canescens (23, 33%), Carissa lanceolata (20, 50%), Atalaya hemiglaucha (16, 33%)*

*Frequent species (cover, frequency): Flueggea virosa subsp. melanthesoides (5, 83%), Lysiphyllo cunninghamii (10, 67%), Carissa lanceolata (11, 50%), Denhamia cunninghamii (50%), Atalaya hemiglaucha (1, 33%), Eremophila longifolia (1, 33%), Eucalyptus chlorophylla (1, 33%), Gossypium australe (3, 33%), Grewia retusifolia (1, 33%), Hakea arboreascens (1, 33%), Terminalia canescens (3, 33%), Acacia coleii (2, 17%), Acacia hemignosta (17%), Acacia holosericea (17%), Acacia orthocarpa (17%), Breynia oblongifolia (17%), Corymbia aparrerinja (2, 17%), Corymbia bella (17%), Corymbia polycarpa (2, 17%), Corymbia terminalis (1, 17%), Erythrophleum chlorostachys (17%), Eucalyptus pruinosa subsp. pruinosa (1, 17%), Grevillea mimosoides (1, 17%), Grevillea striata (30, 17%), Petalostigma quadriloculare (17%), Senna magnifolia (17%), Tephrosia indet. (17%), Terminalia hadleyana subsp. carpentariae (17%)*

**Stratum: Shrub 2****Height avg. = 1.3m, range 1-1.5m, 2 sites****Crown cover avg. = 5.0%, range 3.0-7.0%, 2 sites**

*Dominant species (relative cover, frequency): Atalaya hemiglaucha (11, 33%)*

*Frequent species (cover, frequency): Atalaya hemiglaucha (1, 33%), Carissa lanceolata (2, 17%), Dodonaea physocarpa (17%), Ficus opposita (17%), Flueggea virosa subsp. melanthesoides (1, 17%), Grewia retusifolia (2, 17%), Hakea arboreascens (17%), Lysiphyllo cunninghamii (2, 17%), Petalostigma quadriloculare (17%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.6m, range 0.5-1m, 6 sites****PFC avg. = 45.5%, range 11-94%, 6 sites**

Dominant species (relative cover, frequency): *Aristida ingrata* (24, 33%), *Aristida hygrometrica* (23, 67%), *Bothriochloa ewartiana* (18, 33%), *Eulalia aurea* (17, 33%), *Heteropogon contortus* (13, 50%)

Frequent species (cover, frequency): **GRAMINOID**: *Aristida hygrometrica* (6, 67%), *Aristida pruinosa* (7, 67%), *Chrysopogon fallax* (4, 67%), *Cenchrus pennisetiformis*\* (2, 50%), *Enneapogon robustissimus* (9, 50%), *Heteropogon contortus* (6, 50%), *Aristida holathera* var. *holathera* (1, 33%), *Aristida ingrata* (21, 33%), *Bothriochloa ewartiana* (7, 33%), *Bulbostylis barbata* (33%), *Eragrostis cumingii* (33%), *Eulalia aurea* (11, 33%), *Perotis rara* (2, 33%), *Setaria surgens* (2, 33%), *Sporobolus australasicus* (1, 33%), *Themeda triandra* (33%), *Triodia pungens* (9, 33%), *Chloris* indet. (2, 17%), *Chloris ventricosa* (17%), *Digitaria brownii* (10, 17%), *Digitaria ctenantha* (17%), *Enneapogon lindleyanus* (2, 17%), *Enneapogon polypyllus* (1, 17%), *Eragrostis desertorum* (17%), *Eragrostis* indet. (17%), *Eriachne obtusa* (17%), *Fimbristylis* indet. (17%), *Panicum laevinode* (17%), *Sarga timorense* (17%), *Setaria* indet. (10, 17%)

**FORBS**: *Melhania oblongifolia* (67%), *Waltheria indica* (67%), *Abutilon hannii* (3, 33%), *Boerhavia* indet. (33%), *Cleome viscosa* (33%), *Corchorus sericeus* (33%), *Crotalaria medicaginea* (33%), *Evolvulus alsinoides* var. *decumbens* (33%), *Flueggea virosa* subsp. *melanthesoides* (2, 33%), *Grewia retusifolia* (3, 33%), *Hibiscus meraukensis* (33%), *Jasminum molle* (33%), *Polycarpaea corymbosa* (33%), *Sida acuta*\* (33%), *Sida spinosa*\* (33%), *Tephrosia phaeosperma* var. (*Westmoreland S.Melville 967*) (33%), *Zornia prostrata* (1, 33%), *Acacia hemignosta* (17%), *Acacia holosericea* (17%), *Achyranthes aspera* (17%), *Alternanthera* indet. (17%), *Apophyllum anomalum* (17%), *Atalaya hemiglaucha* (1, 17%), *Bonamia pannosa* (17%), *Breynia oblongifolia* (17%), *Capparis lasiantha* (17%), *Carissa lanceolata* (17%), *Crotalaria verrucosa* (2, 17%), *Erythrophleum chlorostachys* (17%), *Euphorbiaceae* indet. (17%), *Evolvulus alsinoides* (17%), *Galactia tenuiflora* (17%), *Goodenia triodiophila* (17%), *Heliotropium tenuifolium* (17%), *Hibiscus sturtii* (17%), *Indigofera hirsuta* (17%), *Indigofera linifolia* (17%), *Indigofera linnaei* (4, 17%), *Jasminum* indet. (17%), *Lysiphyllum cunninghamii* (17%), *Phyllanthus carpentariae* (17%), *Phyllanthus hebecarpus* (17%), *Phyllanthus virgatus* (17%), *Portulaca pilosa*\* (17%), *Pterocaulon ciliosum* (17%), *Pterocaulon serrulatum* (17%), *Rhynchosia minima* (17%), *Rhynchosia minima* var. *australis* (17%), *Sauvagesia* indet. (17%), *Sida cordifolia*\* (6, 17%), *Sida fibulifera* (17%), *Sida hackettiana* (1, 17%), *Sida* indet. (17%), *Solanum* indet. (17%), *Spermacoce* indet. (17%), *Terminalia hadleyana* subsp. *carpentariae* (17%), *Tribulus terrestris* (17%), *Triumfetta* indet. (1, 17%), *Uraria lagopodioides* (17%), *Vigna lanceolata* (17%), *Zornia muriculata* (17%)

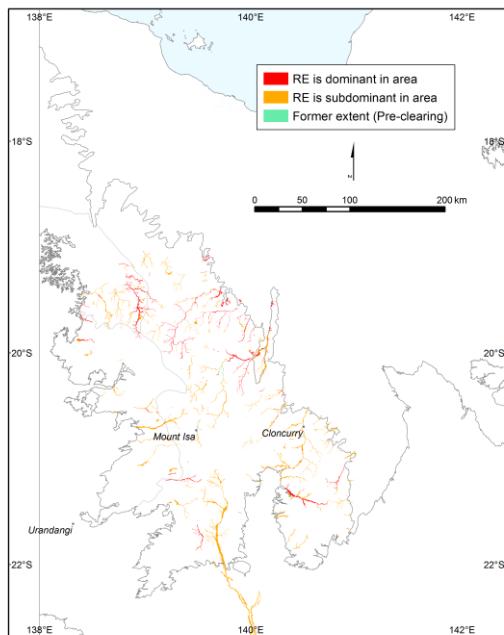
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.6a: *Corymbia aparrerinja* woodland often with *C. terminalis*, *Eucalyptus leucophylla*, *E. camaldulensis*, *Lysiphyllo cunnighamii* and/or *Acacia cambagei*



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 60,189 59,632 99.07%

Species recorded: Total: 146; woody: 35; ground: 114; Avg. spp./site: 34.4; std dev.: 9.0, 7 site(s)

Basal area: Avg./site: 3.5 m<sup>2</sup>/ha, range: 1.0 - 9 m<sup>2</sup>/ha, std. deviation: 3 m<sup>2</sup>/ha, 7 site(s)

Structural formation: Low open-woodland: 43%; woodland: 29%; open-woodland: 29%, 7 site(s)

Representative sites: 19407, 24267, 40876, 42069, 42076, 42164, 59639.

#### Stratum: Tree 1

Height avg. = 11.9m, range 8-18m, 7 sites

Crown cover avg. = 28.9%, range 10.0-51.0%, 7 sites

Dominant species (relative cover, frequency): *Corymbia aparrerinja* (66, 86%), *Corymbia terminalis* (30, 71%), *Eucalyptus pruinosa* subsp. *pruinosa* (20, 29%), *Lysiphyllo cunnighamii* (14, 29%), *Eucalyptus camaldulensis* (8, 43%)

Frequent species (cover, frequency): *Corymbia aparrerinja* (20, 86%), *Corymbia terminalis* (6, 71%), *Eucalyptus camaldulensis* (2, 43%), *Eucalyptus pruinosa* subsp. *pruinosa* (4, 29%), *Grevillea striata* (1, 29%), *Lysiphyllo cunnighamii* (6, 29%), *Acacia cambagei* (14%), *Atalaya hemiglaucha* (1, 14%), *Capparis lasiantha* (14%), *Eucalyptus coolabah* (3, 14%), *Hakea chordophylla* (1, 14%), *Melaleuca leucadendra* (3, 14%), *Psydrax attenuata* (14%), *Tinospora smilacina* (14%), *Ventilago viminalis* (1, 14%)

#### Stratum: Tree 2

Height avg. = 4.7m, range 4-5m, 3 sites

Crown cover avg. = 0.7%, range 0.0-1.0%, 3 sites

Dominant species (relative cover, frequency): *Grevillea striata* (21, 29%)

Frequent species (cover, frequency): *Grevillea striata* (29%), *Atalaya hemiglaucha* (14%), *Corymbia terminalis* (1, 14%), *Hakea chordophylla* (14%), *Lysiphyllo cunnighamii* (1, 14%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.9m, range 0.75-3m, 7 sites****Crown cover avg. = 4.5%, range 0.0-20.0%, 7 sites**

Dominant species (relative cover, frequency): *Atalaya hemiglaucha* (57, 29%), *Carissa lanceolata* (50, 43%), *Acacia chisholmii* (39, 57%), *Eremophila longifolia* (3, 29%)

Frequent species (cover, frequency): *Acacia chisholmii* (5, 57%), *Carissa lanceolata* (2, 43%), *Atalaya hemiglaucha* (1, 29%), *Eremophila longifolia* (29%), *Abutilon hannii* (14%), *Acacia holosericea* (1, 14%), *Acacia sericophylla* (14%), *Aerva javanica*\* (14%), *Corymbia terminalis* (1, 14%), *Duma florulenta* (14%), *Ehretia saligna* (14%), *Eucalyptus pruinosa* subsp. *pruinosa* (14%), *Flueggea virosa* subsp. *melanthesoides* (1, 14%), *Gossypium australe* (14%), *Grevillea striata* (14%), *Hakea chordophylla* (1, 14%), *Indigofera* indet. (14%), *Lysiphyllo cunninghamii* (2, 14%), *Melaleuca nervosa* (14%), *Vachellia farnesiana*\* (14%), *Ventilago viminalis* (14%)

**Stratum: Shrub 2****Height avg. = 1.2m, range 1-1.5m, 3 sites****Crown cover avg. = 2.0%, range 0.0-5.0%, 3 sites**

Dominant species (relative cover, frequency): *Carissa lanceolata* (12, 29%)

Frequent species (cover, frequency): *Carissa lanceolata* (29%), *Abutilon leucopetalum* (14%), *Atalaya hemiglaucha* (1, 14%), *Capparis lasiantha* (14%), *Corymbia terminalis* (1, 14%), *Cucumis argenteus* (14%), *Eremophila latrobei* (2, 14%), *Gossypium australe* (14%), *Parkinsonia aculeata*\* (14%), *Senna artemisioides* subsp. *oligophylla* (14%), *Senna planitiicola* (14%), *Vachellia farnesiana*\* (1, 14%)

**Stratum: Ground****Height avg. = 0.5m, range 0.25-0.8m, 7 sites****PFC avg. = 39.9%, range 14-62%, 7 sites**

Dominant species (relative cover, frequency): *Sehima nervosum* (45, 43%), *Cenchrus pennisetiformis*\* (39, 29%), *Triodia longiceps* (23, 29%), *Heteropogon contortus* (21, 43%), *Aristida hygrometrica* (17, 29%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida inaequiglumis* (2, 57%), *Aristida pruinosa* (2, 57%), *Enneapogon polyphyllus* (1, 57%), *Aristida holathera* var. *holathera* (2, 43%), *Chrysopogon fallax* (1, 43%), *Eulalia aurea* (43%), *Heteropogon contortus* (14, 43%), *Sehima nervosum* (19, 43%), *Sporobolus australasicus* (1, 43%), *Themeda triandra* (2, 43%), *Triodia pungens* (3, 43%), *Aristida hygrometrica* (7, 29%), *Aristida ingrata* (1, 29%), *Cenchrus pennisetiformis*\* (15, 29%), *Dactyloctenium radulans* (29%), *Eragrostis* indet. (29%), *Eriachne obtusa* (29%), *Fimbristylis dichotoma* (1, 29%), *Triodia longiceps* (8, 29%), *Aristida calycina* (10, 14%), *Aristida contorta* (2, 14%), *Aristida* indet. (14%), *Aristida latifolia* (2, 14%), *Bothriochloa decipiens* var. *cloncurrensis* (1, 14%), *Bulbostylis barbata* (14%), *Chloris pectinata* (14%), *Chloris virgata*\* (14%), *Cyperus carinatus* (14%), *Cyperus conicus* (14%), *Cyperus fulvus* (14%), *Dichanthium fecundum* (2, 14%), *Digitaria brownii* (1, 14%), *Enneapogon lindleyanus* (14%), *Enneapogon nigricans* (14%), *Enteropogon acicularis* (20, 14%), *Eragrostis elongata* (12, 14%), *Eragrostis eriopoda* (14%), *Fimbristylis bisumbellata* (14%), *Paraneurachne muelleri* (2, 14%), *Schizachyrium fragile* (14%), *Themeda avenacea* (14%), *Tragus australianus* (14%), *Tripogon loliformis* (3, 14%), *Urochloa praetervisa* (14%)

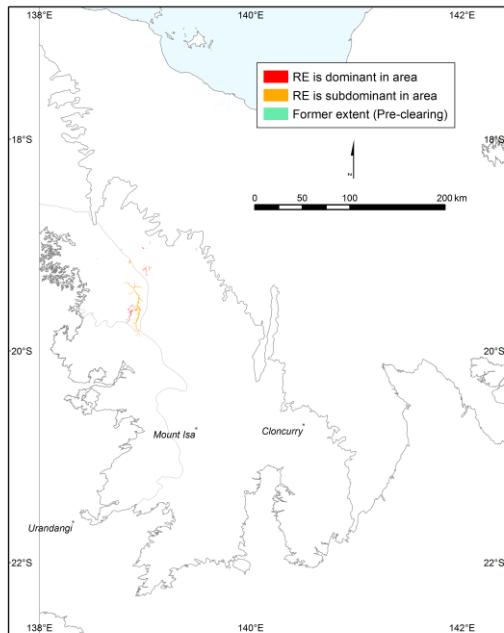
FORBS: *Abutilon oxycarpum* (43%), *Malvastrum americanum* (43%), *Sida rohlenae* (43%), *Waltheria indica* (43%), *Achyranthes aspera* (29%), *Boerhavia* indet. (29%), *Cleome viscosa* (29%), *Crotalaria medicaginea* (29%), *Crotalaria novae-hollandiae* (1, 29%), *Evolvulus alsinoides* var. *decumbens* (29%), *Heliotropium cunninghamii* (1, 29%), *Indigofera colutea* (1, 29%), *Indigofera linifolia* (29%), *Melhania oblongifolia* (29%), *Melhania ovata* (29%), *Portulaca oleracea*\* (1, 29%), *Pterocaulon serrulatum* (1, 29%), *Rostellularia adscendens* (29%), *Senna planitiicola* (29%), *Sida fibulifera* (29%), *Tephrosia brachyodon* var. *cloncurrensis* (29%), *Trianthema triquetra* (29%), *Trichodesma zeylanicum* (29%), *Vigna lanceolata* (29%), *Xanthium occidentale*\* (29%), *Zornia* indet. (29%), *Abutilon fraseri* (14%), *Abutilon otocarpum* (14%), *Acanthospermum hispidum*\* (14%), *Alternanthera* indet. (14%), *Alternanthera nana* (14%), *Amaranthus interruptus* (14%), *Apophyllum anomalum* (14%), *Blumea* indet. (14%), *Bonamia* indet. (14%), *Bonamia media* (14%), *Capparis umbonata* (14%), *Centipeda minima* (14%), *Corchorus sidoides* (14%), *Crotalaria montana* (14%), *Cullen* indet. (14%), *Euphorbia bifida* (14%), *Euphorbia hirta*\* (1, 14%), *Euphorbia papillata* var. *laevicaulis* (14%), *Euphorbia tannensis* (14%), *Evolvulus alsinoides* (14%), *Evolvulus alsinoides* var. *villosocalyx* (14%), *Flueggea virosa* subsp. *melanthesoides* (14%), *Galactia* indet. (14%), *Galactia tenuiflora* forma *sericea* (14%), *Gomphrena* indet. (14%), *Heliotropium tenuifolium* (14%), *Hibiscus meraukensis* (14%), *Indigofera hirsuta* (14%), *Indigofera linnaei* (14%), *Ipomoea muelleri* (14%), *Neptunia gracilis* (1, 14%), *Phyllanthus* indet. (14%), *Phyllanthus maderaspatensis* (14%), *Pterocaulon* indet. (14%), *Ptilotus fusiformis* (14%), *Sida hackettiana* (14%), *Sida platycalyx* (5, 14%), *Sida spinosa*\* (2, 14%), *Solanum succosum* (14%), *Sterculia* indet. (14%), *Streptoglossa decurrens* (14%), *Stylosanthes* indet. (14%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.6b: Mixed eucalypt woodland dominated by *Corymbia aparrerinja* and *Corymbia terminalis* on sandy terraces



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 2,753 2,748 99.82%

Species recorded: Total: 61; woody: 10; ground: 51; Avg. spp./site: 61.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 5.3 m<sup>2</sup>/ha, range: 5.3 - 5 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Woodland: 100%, 1 site(s)

Representative sites: 19464.

#### Stratum: Tree 1

Height avg. = 15.0m, 1 site

Crown cover avg. = 17.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia terminalis* (59, 100%), *Corymbia aparrerinja* (41, 100%)

Frequent species (cover, frequency): *Corymbia aparrerinja* (7, 100%), *Corymbia terminalis* (10, 100%)

#### Stratum: Tree 2

Height avg. = 8.0m, 1 site

Crown cover avg. = 15.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (53, 100%), *Eucalyptus camaldulensis* (20, 100%), *Corymbia terminalis* (13, 100%), *Atalaya hemiglaucha* (13, 100%)

Frequent species (cover, frequency): *Atalaya hemiglaucha* (2, 100%), *Corymbia terminalis* (2, 100%), *Eucalyptus camaldulensis* (3, 100%), *Eucalyptus pruinosa* subsp. *pruinosa* (8, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.5m, 1 site****Crown cover avg. = 6.0%, 1 site**

Dominant species (relative cover, frequency): *Carissa lanceolata* (48, 100%), *Lysiphyllo cunninghamii* (32, 100%), *Vachellia farnesiana\** (16, 100%), *Grewia retusifolia* (2, 100%), *Flueggea virosa* subsp. *melanthesoides* (2, 100%)

Frequent species (cover, frequency): *Carissa lanceolata* (3, 100%), *Flueggea virosa* subsp. *melanthesoides* (100%), *Grewia retusifolia* (100%), *Lysiphyllo cunninghamii* (2, 100%), *Vachellia farnesiana\** (1, 100%)

**Stratum: Ground****Height avg. = 0.8m, 1 site****PFC avg. = 83.0%, 1 site**

Dominant species (relative cover, frequency): *Enteropogon dolichostachyus* (46, 100%), *Aristida pruinosa* (25, 100%), *Bothriochloa ewartiana* (6, 100%), *Malvastrum americanum* (6, 100%), *Aristida leptopoda* (3, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida leptopoda* (3, 100%), *Aristida pruinosa* (22, 100%), *Bothriochloa decipiens* var. *cloncurrensis* (100%), *Bothriochloa ewartiana* (5, 100%), *Brachyachne convergens* (100%), *Bulbostylis barbata* (100%), *Cenchrus pennisetiformis\** (100%), *Cyperus iria* (100%), *Dichanthium secundum* (2, 100%), *Enneapogon polypillus* (100%), *Enteropogon dolichostachyus* (40, 100%), *Eragrostis ciliaris\** (100%), *Eragrostis tenellula* (1, 100%), *Heteropogon contortus* (1, 100%), *Mnesitheia formosa* (100%), *Sporobolus australasicus* (100%)

FORBS: *Acanthospermum hispidum\** (100%), *Achyranthes aspera* (100%), *Alternanthera pungens\** (100%), *Amaranthus cochleatepalus* (100%), *Bidens pilosa\** (100%), *Blumea tenella* (100%), *Chamaecrista absus* var. *absus* (100%), *Cleome viscosa* (100%), *Corchorus tridens* (100%), *Crotalaria medicaginea* (100%), *Crotalaria novae-hollandiae* (100%), *Cucumis melo* (100%), *Datura leichhardtii\** (100%), *Euphorbia hirta\** (100%), *Evolvulus alsinoides* var. *villosicalyx* (100%), *Gossypium australe* (100%), *Hibiscus meraukensis* (100%), *Indigofera hirsuta* (100%), *Indigofera linnaei* (100%), *Malvastrum americanum* (5, 100%), *Melhania oblongifolia* (1, 100%), *Polycarpha corymbosa* (100%), *Portulaca oleracea\** (100%), *Pterocaulon indet.* (100%), *Rhynchosia minima* (1, 100%), *Rostellularia adscendens* var. *clementii* (100%), *Senna occidentalis\** (100%), *Sida acuta\** (100%), *Sida cleisocalyx* (1, 100%), *Sida fibulifera* (100%), *Tribulus cistoides* (100%), *Xanthium occidentale\** (1, 100%), *Zaleya galericulata* subsp. *galericulata* (100%)

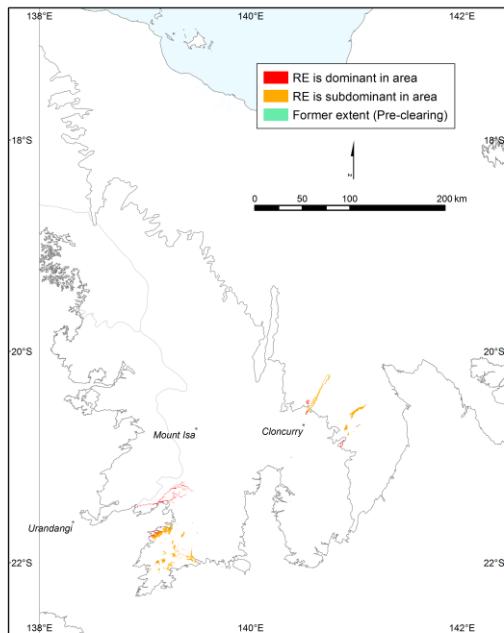
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.6c: *Corymbia aparrerinja* woodland on minor drainage lines



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 9,841 9,825 99.84%

Species recorded: Total: 59; woody: 14; ground: 45; Avg. spp./site: 37.0; std dev.: 12.0, 2 site(s)

Basal area: Avg./site: 3.0 m<sup>2</sup>/ha, range: 1.0 - 5 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Woodland: 100%, 2 site(s)

Representative sites: 19354, 55794.

#### Stratum: Tree 1

Height avg. = 11.5m, range 10-13m, 2 sites

Crown cover avg. = 35.0%, range 25.0-45.0%, 2 sites

Dominant species (relative cover, frequency): *Corymbia aparrerinja* (92, 100%), *Corymbia terminalis* (16, 50%)

Frequent species (cover, frequency): *Corymbia aparrerinja* (33, 100%), *Corymbia terminalis* (4, 50%), *Grevillea striata* (50%)

#### Stratum: Shrub 1

Height avg. = 2.0m, range 2-2m, 2 sites

Crown cover avg. = 9.5%, range 7.0-12.0%, 2 sites

Dominant species (relative cover, frequency): *Carissa lanceolata* (74, 100%), *Vachellia farnesiana*\* (28, 50%), *Atalaya hemiglauca* (9, 100%), *Grevillea striata* (1, 50%), *Ventilago viminalis* (1, 50%)

Frequent species (cover, frequency): *Atalaya hemiglauca* (1, 100%), *Carissa lanceolata* (8, 100%), *Acacia cambagei* (50%), *Acacia chisholmii* (50%), *Capparis lasiantha* (50%), *Corymbia aparrerinja* (50%), *Grevillea striata* (50%), *Melaleuca bracteata* (50%), *Pittosporum angustifolium* (50%), *Vachellia farnesiana*\* (2, 50%), *Ventilago viminalis* (50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 2****Height avg. = 1.0m, 1 site****Crown cover avg. = 0.0%, 1 site**

*Dominant species (relative cover, frequency): Senna artemisioides subsp. helmsii (33, 50%), Eremophila latrobei (33, 50%), Atalaya hemiglaucha (33, 50%)*

*Frequent species (cover, frequency): Atalaya hemiglaucha (50%), Eremophila latrobei (50%), Senna artemisioides subsp. helmsii (50%)*

**Stratum: Ground****Height avg. = 0.9m, range 0.5-1.2m, 2 sites****PFC avg. = 65.5%, range 54-77%, 2 sites**

*Dominant species (relative cover, frequency): Dactyloctenium radulans (33, 50%), Eulalia aurea (23, 100%), Chrysopogon fallax (20, 100%), Heteropogon contortus (13, 50%), Bothriochloa ewartiana (11, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Bothriochloa ewartiana (9, 100%), Chrysopogon fallax (14, 100%), Eulalia aurea (14, 100%), Sehima nervosum (2, 100%), Sporobolus australasicus (100%), Themeda avenacea (3, 100%), Themeda triandra (5, 100%), Aristida contorta (50%), Aristida latifolia (3, 50%), Bothriochloa pertusa\* (5, 50%), Cenchrus pennisetiformis\* (50%), Dactyloctenium aegyptium\* (50%), Dactyloctenium radulans (19, 50%), Dichanthium fecundum (2, 50%), Enneapogon polyphyllus (50%), Eragrostis tenellula (50%), Heteropogon contortus (10, 50%), Paspalidium distans (50%), Urochloa gilesii var. gilesii (50%)*

*FORBS: Cleome viscosa (100%), Crotalaria medicaginea (100%), Crotalaria novae-hollandiae (100%), Sida trichopoda (100%), Aeschynomene indica (50%), Alternanthera sp. (Mt Isa R.L.Spec + 49) (50%), Cucumis argenteus (50%), Cucumis melo (50%), Euphorbia biconvexa (50%), Euphorbia papillata var. laevicaulis (50%), Euphorbia tannensis subsp. tannensis (50%), Evolvulus alsinoides var. villosicalyx (50%), Galactia tenuiflora var. macrantha (50%), Gomphrena indet. (50%), Gossypium australe (50%), Hibiscus sturtii var. grandiflorus (50%), Indigofera colutea (50%), Indigofera linifolia (50%), Indigofera linnaei (50%), Ipomoea plebeia (50%), Phyllanthus indet. (50%), Portulaca oleracea\* (50%), Portulaca pilosa\* (50%), Tephrosia flagellaris (50%), Trichodesma zeylanicum var. zeylanicum (50%), Vigna indet. (50%)*

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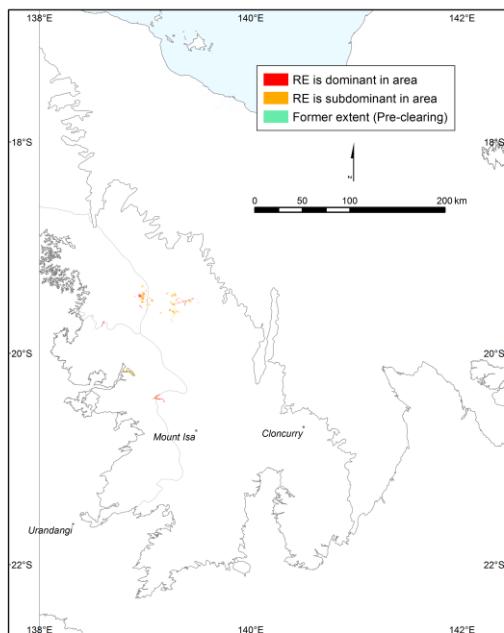
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.6e: Corymbia aparrerinja and Corymbia polycarpa woodland on sandy levees



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 3,487      3,483      99.88%

**Species recorded:** Total: 44; woody: 13; ground: 32; Avg. spp./site: 27.5; std dev.: 8.5, 2 site(s)

**Basal area:** Avg./site: 5.0 m<sup>2</sup>/ha, range: 5.0 - 5 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 2 site(s)

**Structural formation:** Woodland: 100%, 2 site(s)

**Representative sites:** 19413, 23425.

#### Stratum: Tree 1

**Height avg. = 14.0m, range 11-17m, 2 sites**

**Crown cover avg. = 26.5%, range 22.0-31.0%, 2 sites**

*Dominant species (relative cover, frequency): Corymbia aparrerinja (46, 100%), Corymbia polycarpa (42, 100%), Eucalyptus pruinosa subsp. pruinosa (23, 50%)*

*Frequent species (cover, frequency): Corymbia aparrerinja (11, 100%), Corymbia polycarpa (13, 100%), Eucalyptus camaldulensis (100%), Eucalyptus pruinosa subsp. pruinosa (5, 50%)*

#### Stratum: Shrub 1

**Height avg. = 1.7m, range 1.5-1.8m, 2 sites**

**Crown cover avg. = 1.5%, range 0.0-3.0%, 2 sites**

*Dominant species (relative cover, frequency): Acacia chisholmii (39, 100%), Eucalyptus pruinosa subsp. pruinosa (30, 50%), Psydrax oleifolia (17, 50%), Capparis lasiantha (17, 50%), Vachellia farnesiana\* (10, 100%)*

*Frequent species (cover, frequency): Acacia chisholmii (1, 100%), Carissa lanceolata (100%), Ficus opposita (100%), Vachellia farnesiana\* (100%), Capparis lasiantha (50%), Eucalyptus pruinosa subsp. pruinosa (1, 50%), Psydrax oleifolia (50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 1.5m, 1 site****Crown cover avg. = 5.0%, 1 site**

*Dominant species (relative cover, frequency): Senna planitiicola (96, 50%), Hibiscus meraukensis (2, 50%), Atalaya hemiglaucia (2, 50%)*

*Frequent species (cover, frequency): Atalaya hemiglaucia (50%), Hibiscus meraukensis (50%), Senna planitiicola (5, 50%)*

**Stratum: Ground****Height avg. = 0.7m, range 0.5-0.8m, 2 sites****PFC avg. = 55.0%, range 50-60%, 2 sites**

*Dominant species (relative cover, frequency): Perotis rara (39, 50%), Bothriochloa decipiens var. cloncurrensis (33, 50%), Heteropogon contortus (23, 100%), Triodia longiceps (17, 50%), Aristida latifolia (17, 50%)*

*Frequent species (cover, frequency): GRAMINOIDs: Chrysopogon fallax (7, 100%), Heteropogon contortus (13, 100%), Aristida latifolia (10, 50%), Aristida pruinosa (1, 50%), Bothriochloa decipiens var. cloncurrensis (20, 50%), Dactyloctenium radulans (50%), Dichanthium sericeum subsp. polystachyum (2, 50%), Digitaria indet. (2, 50%), Enneapogon avenaceus (50%), Fimbristylis indet. (50%), Perotis rara (20, 50%), Setaria surgens (50%), Triodia longiceps (10, 50%)*

*FORBS: Achyranthes aspera (100%), Waltheria indica (100%), Abutilon otocarpum (50%), Acanthospermum hispidum\* (2, 50%), Boerhavia indet. (50%), Capparis lasiantha (50%), Cleome viscosa (50%), Crotalaria novae-hollandiae (2, 50%), Cucumis melo (50%), Indigofera colutea (50%), Indigofera hirsuta (50%), Malvastrum americanum (2, 50%), Malvastrum americanum var. americanum\* (50%), Melhania oblongifolia (50%), Phyllanthus indet. (50%), Pterocaulon serrulatum (50%), Sesbania benthamiana (50%), Sida rohlenae (50%), Xanthium indet. (50%)*

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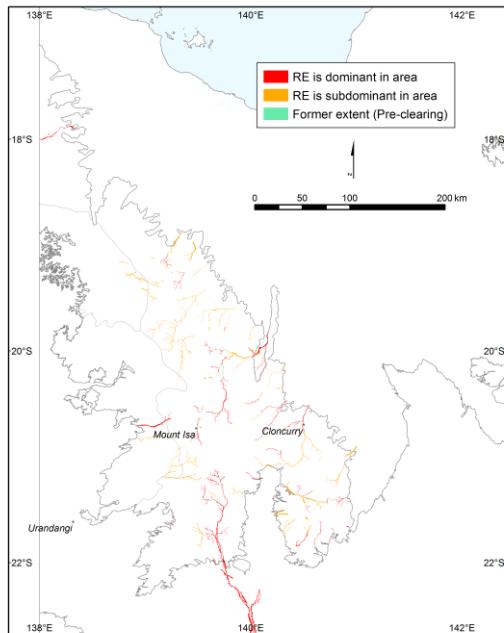
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.7a: Eucalyptus camaldulensis fringing woodland to closed forest with *Lophostemon grandiflorus* and *Melaleuca leucadendra* and/or *Melaleuca fluviatilis*



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 44,892 44,302 98.69%

Species recorded: Total: 136; woody: 43; ground: 102; Avg. spp./site: 25.1; std dev.: 10.1, 11 site(s)

Basal area: Avg./site: 10.9 m<sup>2</sup>/ha, range: 2.5 - 22 m<sup>2</sup>/ha, std. deviation: 5 m<sup>2</sup>/ha, 10 site(s)

Structural formation: Woodland: 45%; open-woodland: 18%; open-forest: 18%; closed-forest: 18%, 11 site(s)

Representative sites: 19379, 19398, 19399, 19489, 24281, 24320, 24409, 42064, 42083, 45375, 55856.

#### Stratum: Tree 1

Height avg. = 16.9m, range 11-29m, 11 sites

Crown cover avg. = 49.9%, range 15.0-100.0%, 11 sites

Dominant species (relative cover, frequency): *Melaleuca leucadendra* (57, 27%), *Eucalyptus camaldulensis* (55, 100%), *Melaleuca fluviatilis* (40, 27%), *Lophostemon grandiflorus* subsp. *riparius* (21, 64%), *Livistona rigida* (11, 27%)

Frequent species (cover, frequency): *Eucalyptus camaldulensis* (23, 100%), *Lophostemon grandiflorus* subsp. *riparius* (8, 64%), *Atalaya hemiglaucha* (1, 27%), *Livistona rigida* (7, 27%), *Melaleuca fluviatilis* (22, 27%), *Melaleuca leucadendra* (52, 27%), *Amyema sanguinea* var. *sanguinea* (9%), *Grevillea striata* (1, 9%), *Lysiphyllo cunninghamii* (4, 9%), *Melaleuca trichostachya* (9%), *Terminalia platyphylla* (2, 9%)

#### Stratum: Tree 2

Height avg. = 9.1m, range 5-16m, 8 sites

Crown cover avg. = 22.1%, range 8.0-55.0%, 8 sites

Dominant species (relative cover, frequency): *Melaleuca argentea* (78, 36%), *Lophostemon grandiflorus* subsp. *riparius* (49, 36%), *Eucalyptus camaldulensis* (28, 36%), *Atalaya hemiglaucha* (8, 27%)

Frequent species (cover, frequency): *Eucalyptus camaldulensis* (7, 36%), *Lophostemon grandiflorus* subsp. *riparius* (13, 36%), *Melaleuca argentea* (15, 36%), *Atalaya hemiglaucha* (2, 27%), *Acacia hemsleyi* (5, 9%), *Acacia holosericea* (9%), *Ficus aculeata* var. *aculeata* (5, 9%), *Livistona rigida* (10, 9%), *Melaleuca leucadendra* (10, 9%), *Tinospora smilacina* (2, 9%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Tree 3****Height avg. = 4.5m, range 4.5-4.5m, 2 sites****Crown cover avg. = 8.0%, range 8.0-8.0%, 2 sites**

*Frequent species (cover, frequency): Ficus opposita (6, 18%), Eucalyptus camaldulensis (9%), Livistona rigida (2, 9%), Lophostemon grandiflorus subsp. riparius (2, 9%), Melaleuca leucadendra (9%), Melaleuca trichostachya (1, 9%), Passiflora foetida\* (9%), Tinospora smilacina (9%)*

**Stratum: Shrub 1****Height avg. = 2.6m, range 1.8-4m, 11 sites****Crown cover avg. = 14.3%, range 0.0-55.0%, 11 sites**

*Dominant species (relative cover, frequency): Vitex benthamiana (59, 27%), Flueggea virosa subsp. melanthesoides (34, 45%), Acacia holosericea (29, 36%), Melaleuca argentea (25, 27%), Acacia hemsleyi (15, 55%)*

*Frequent species (cover, frequency): Acacia hemsleyi (3, 55%), Flueggea virosa subsp. melanthesoides (8, 45%), Acacia holosericea (1, 36%), Vachellia farnesiana\* (36%), Ficus opposita (27%), Melaleuca argentea (8, 27%), Vitex benthamiana (9, 27%), Clerodendrum floribundum (18%), Livistona rigida (18%), Sesbania benthamiana (18%), Vitex trifolia (20, 18%), Abutilon hannii (9%), Aeschynomene indica (1, 9%), Atalaya hemiglaucha (9%), Calotropis gigantea\* (9%), Carissa lanceolata (9%), Clitoria ternatea\* (4, 9%), Denhamia oleaster (1, 9%), Eremophila macdonnellii (1, 9%), Eucalyptus camaldulensis (2, 9%), Hibiscus meraukensis (1, 9%), Indigofera indet. (9%), Lysiphyllum cunninghamii (9%), Melaleuca bracteata (9%), Melaleuca dissitiflora (9%), Passiflora indet. (9%), Senna planitiicola (1, 9%), Terminalia canescens (1, 9%), Ventilago viminalis (1, 9%)*

**Stratum: Shrub 2****Height avg. = 1.2m, range 0.6-1.5m, 3 sites****Crown cover avg. = 2.0%, range 0.0-5.0%, 3 sites**

*Frequent species (cover, frequency): Vachellia farnesiana\* (3, 18%), Cleome viscosa (9%), Indigofera linifolia (9%), Sesbania benthamiana (2, 9%), Sesbania cannabina (1, 9%), Tephrosia brachyodon var. longifolia (9%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.3m, range 0.1-0.75m, 11 sites****PFC avg. = 20.5%, range 1-64%, 11 sites**

Dominant species (relative cover, frequency): *Echinochloa colona*\* (18, 55%), *Cenchrus setigerus*\* (18, 27%), *Cenchrus pennisetiformis*\* (16, 55%), *Heteropogon contortus* (10, 64%), *Xanthium occidentale*\* (8, 82%)

Frequent species (cover, frequency): **GRAMINOIDs:** *Heteropogon contortus* (1, 64%), *Cenchrus pennisetiformis*\* (4, 55%), *Echinochloa colona*\* (7, 55%), *Eragrostis elongata* (36%), *Cenchrus setigerus*\* (7, 27%), *Chloris virgata*\* (1, 27%), *Aristida holathera* var. *holathera* (1, 18%), *Brachyachne convergens* (1, 18%), *Cyperus conicus* var. *conicus* (1, 18%), *Cyperus javanicus* (18%), *Digitaria bicornis* (18%), *Digitaria ciliaris*\* (18%), *Echinochloa turneriana* (3, 18%), *Enteropogon ramosus* (1, 18%), *Eulalia aurea* (1, 18%), *Aristida biglandulosa* (1, 9%), *Aristida contorta* (9%), *Aristida pruinosa* (9%), *Bothriochloa bladhii* (14, 9%), *Bothriochloa decipiens* var. *cloncurrensis* (9%), *Bothriochloa* indet. (9%), *Chloris inflata*\* (9%), *Chloris pectinata* (9%), *Cynodon dactylon*\* (16, 9%), *Cynodon dactylon* var. *dactylon*\* (14, 9%), *Cyperus betchei* subsp. *commiscens* (1, 9%), *Cyperus dactylotes* (1, 9%), *Cyperus iria* (9%), *Cyperus perangustus* (9%), *Dactyloctenium radulans* (9%), *Dichanthium annulatum*\* (9%), *Dichanthium fecundum* (9%), *Eragrostis cumingii* (9%), *Eragrostis fallax* (2, 9%), *Eragrostis* indet. (9%), *Eragrostis leptostachya* (9%), *Eragrostis minor*\* (9%), *Eragrostis speciosa* (1, 9%), *Eragrostis stagnalis* (9%), *Eragrostis tenuifolia*\* (9%), *Juncus continuus* (1, 9%), *Melinis repens*\* (9%), *Urochloa piligera* (9%), *Urochloa praetervisa* (9%)  
**FORBS:** *Xanthium occidentale*\* (1, 82%), *Achyranthes aspera* (55%), *Cleome viscosa* (1, 45%), *Euphorbia hirta*\* (36%), *Ammannia multiflora* (1, 27%), *Ipomoea plebeia* (27%), *Acanthospermum hispidum*\* (1, 18%), *Alternanthera denticulata* (18%), *Alternanthera pungens*\* (18%), *Indigofera linifolia* (18%), *Ipomoea muelleri* (18%), *Malvastrum americanum* (2, 18%), *Senna planititcola* (18%), *Sesbania benthamiana* (18%), *Sida rohlenae* (1, 18%), *Vigna* indet. (18%), *Vigna lanceolata* (18%), *Waltheria indica* (18%), *Abutilon oxycarpum* (9%), *Aeschynomene indica* (9%), *Alternanthera angustifolia* (9%), *Alternanthera denticulata* var. *micrantha* (5, 9%), *Alternanthera* indet. (9%), *Blumea integrifolia* (9%), *Boerhavia pubescens* (9%), *Corchorus tridens* (9%), *Crotalaria medicaginea* (9%), *Crotalaria novae-hollandiae* (9%), *Crotalaria novae-hollandiae* subsp. *novae-hollandiae* (1, 9%), *Cucumis argenteus* (9%), *Cucumis melo* (9%), *Datura inoxia*\* (9%), *Euphorbia* indet. (9%), *Galactia tenuiflora* var. *lucida* (9%), *Glycine canescens* (1, 9%), *Hibiscus meraukensis* (9%), *Hybanthus aurantiacus* (1, 9%), *Indigofera tinctoria*\* (9%), *Ipomoea* indet. (9%), *Livistona rigida* (9%), *Momordica balsamina*\* (9%), *Oldenlandia galiooides* (9%), *Passiflora* indet. (9%), *Phyllanthus maderaspatensis* var. *angustifolius* (1, 9%), *Phyllanthus virgatus* (9%), *Plumbago zeylanica* (9%), *Ricinus communis*\* (9%), *Sida cordifolia*\* (2, 9%), *Sida hackettiana* (9%), *Sida* indet. (9%), *Sida rohlenae* subsp. *rohlenae* (9%), *Sida* sp. (Musselbrook M.B.Thomas+ MRS437) (9%), *Sida spinosa*\* (1, 9%), *Spermacoce* indet. (9%), *Tephrosia brachyodon* var. *cloncurrensis* (2, 9%), *Tephrosia brachyodon* var. *longifolia* (9%), *Trianthema pilosa* (1, 9%), *Wahlenbergia gracilis* (1, 9%)

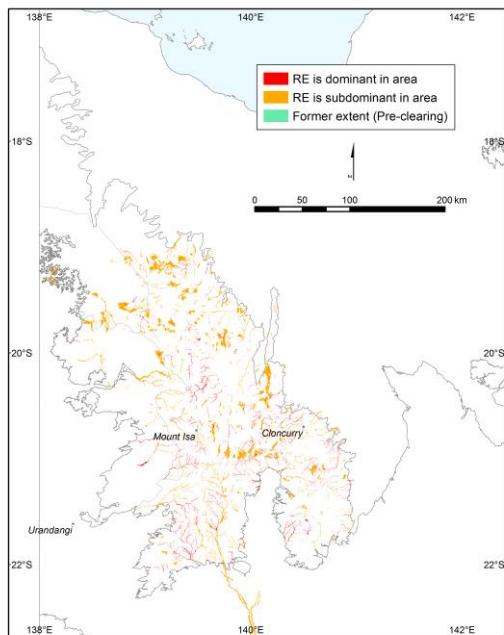
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.7b: *Eucalyptus camaldulensis* fringing woodland with *Lophostemon grandiflorus* and *Melaleuca bracteata* and/or *Melaleuca dissitiflora*



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 86,842 86,239 99.31%

Species\_recorded: Total: 123; woody: 26; ground: 101; Avg. spp./site: 29.8; std dev.: 9.2, 6 site(s)

Basal area: Avg./site: 7.3 m<sup>2</sup>/ha, range: 4.3 - 10 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 6 site(s)

Structural formation: Open-woodland: 50%; woodland: 17%; open-forest: 17%; low woodland: 17%, 6 site(s)

Representative\_sites: 19306, 19315, 19333, 19382, 42118, 42133.

#### Stratum: Tree 1

Height avg. = 13.0m, range 8-21m, 6 sites

Crown cover avg. = 27.8%, range 15.0-50.0%, 6 sites

Dominant species (relative cover, frequency): *Eucalyptus camaldulensis* (90, 100%)

Frequent species (cover, frequency): *Eucalyptus camaldulensis* (24, 100%), *Corymbia terminalis* (33%), *Atalaya hemiglaucha* (17%), *Corymbia aparrerinja* (17%), *Eucalyptus leucophloia* subsp. *euroa* (17%), *Eucalyptus leucophylla* (1, 17%), *Grevillea striata* (17%), *Lophostemon grandiflorus* subsp. *riparius* (25, 17%), *Vachellia farnesiana*\* (17%), *Ventilago viminalis* (17%)

#### Stratum: Tree 2

Height avg. = 5.2m, range 3.5-7m, 3 sites

Crown cover avg. = 4.0%, range 0.0-10.0%, 3 sites

Frequent species (cover, frequency): *Acacia hemsleyi* (2, 17%), *Acacia indet.* (17%), *Atalaya hemiglaucha* (5, 17%), *Hakea arborescens* (5, 17%), *Terminalia aridicola* (17%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Tree 3****Height avg. = 2.5m, 1 site****Crown cover avg. = 1.0%, 1 site***Frequent species (cover, frequency): Atalaya hemiglaucha (1, 17%)*

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**Stratum: Shrub 1****Height avg. = 2.1m, range 1.2-3m, 6 sites****Crown cover avg. = 12.5%, range 0.0-52.0%, 6 sites***Dominant species (relative cover, frequency): Acacia hemsleyi (37, 50%), Sesbania benthamiana (31, 83%), Melaleuca bracteata (29, 33%), Santalum lanceolatum (2, 33%)**Frequent species (cover, frequency): Sesbania benthamiana (1, 83%), Acacia hemsleyi (10, 50%), Melaleuca bracteata (10, 33%), Santalum lanceolatum (33%), Abutilon hannii (17%), Acacia holosericea (17%), Acacia monticola (17%), Eremophila longifolia (17%), Gossypium australe (17%), Melaleuca dissitiflora (15, 17%), Tephrosia brachyodon var. longifolia (17%), Vachellia farnesiana\* (3, 17%)*

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**Stratum: Shrub 2****Height avg. = 1.4m, range 1.2-1.5m, 2 sites****Crown cover avg. = 1.0%, range 0.0-2.0%, 2 sites***Frequent species (cover, frequency): Carissa lanceolata (17%), Gossypium australe (17%), Tephrosia indet. (2, 17%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Ground****Height avg. = 0.8m, range 0.7-1m, 6 sites****PFC avg. = 18.2%, range 1-30%, 6 sites**

*Dominant species (relative cover, frequency): Bothriochloaewartiana (22, 33%), Tephrosia brachyodon var. longifolia (21, 33%), Heteropogon contortus (14, 100%), Cenchrus pennisetiformis\* (12, 67%), Cleome viscosa (8, 50%)*

*Frequent species (cover, frequency): GRAMINOIDs: Heteropogon contortus (3, 100%), Eragrostis elongata (1, 83%), Cenchrus pennisetiformis\* (3, 67%), Melinis repens\* (1, 67%), Eulalia aurea (2, 50%), Bothriochloaewartiana (6, 33%), Enteropogon ramosus (2, 33%), Sehima nervosum (2, 33%), Themeda triandra (1, 33%), Aristida biglandulosa (17%), Aristida calycina var. praealta (1, 17%), Cenchrus setigerus\* (17%), Chloris divaricata (17%), Chloris inflata\* (1, 17%), Chloris virgata\* (1, 17%), Chrysopogon fallax (1, 17%), Cyperus bifax (1, 17%), Cyperus conicus var. conicus (17%), Cyperus holoschoenus (17%), Cyperus iria (17%), Cyperus ixiocarpus (3, 17%), Cyperus perangustus (17%), Cyperus vaginatus (10, 17%), Dichanthium fecundum (1, 17%), Digitaria bicornis (17%), Digitaria ciliaris\* (17%), Echinochloa colona\* (17%),*

*Enneapogon lindleyanus (17%), Enteropogon indet. (1, 17%), Eragrostis indet. (17%), Eragrostis speciosa (1, 17%), Eriachne obtusa (17%), Fimbristylis microcarya (17%), Leptochloa indet. (17%), Schizachyrium indet. (1, 17%), Setaria surgens (17%), Triodia longiceps (4, 17%), Triodia pungens (17%), Urochloa indet. (17%)*

*FORBS: Cleomeviscosa (1, 50%), Acanthospermum hispidum\* (33%), Euphorbia hirta\* (33%), Hibiscus meraukensis (33%), Indigofera colutea (33%), Indigofera linifolia (33%), Malvastrum americanum (33%), Nelsonia campestris (33%), Pluchea dentex (33%), Sida rohlenae subsp. rohlenae (33%), Tephrosia brachyodon var. longifolia (6, 33%), Tridax procumbens\* (1, 33%), Waltheria indica (33%), Xanthium occidentale\* (1, 33%), Acacia hammondii (17%), Aeschynomene indica (17%), Alternanthera denticulata (17%), Alternanthera indet. (17%), Alternanthera sp. (Mt Isa R.L.Speccht+ 49) (17%), Ammannia multiflora (17%), Atriplex nummularia (17%), Boerhavia burbridgeana (17%), Boerhavia sp. (St George A.Hill AQ399299) (17%), Centipeda minima (17%), Cheilanthes indet. (17%), Cheilanthes sieberi subsp. sieberi (17%), Corymbia terminalis (17%), Crotalaria aridicola subsp. glabrata (17%), Crotalaria medicaginea (17%), Crotalaria montana (17%), Crotalaria montana var. exserta (17%), Cucumis melo (17%), Galactia indet. (17%), Goodenia lunata (17%), Heliotropium cunninghamii (17%), Heliotropium tenuifolium (17%), Hybanthus aurantiacus (17%), Indigofera hirsuta (17%), Indigofera linnaei (17%), Ipomoea muelleri (1, 17%), Ipomoea plebeia (17%), Ipomoea polymorpha (17%), Ludwigia octovalvis (1, 17%), Melaleuca dissitiflora (4, 17%), Microstachys chamaelea (17%), Ocimum caryophyllum (17%), Oldenlandia galiooides (17%), Phyllanthus indet. (17%), Pluchea indet. (17%), Pluchea rubelliflora (17%), Polycarphaea breviflora (17%), Pterocaulon serrulatum (17%), Ptilotus fusiformis (17%), Scaevola indet. (17%), Scoparia dulcis\* (17%), Terminalia aridicola (17%), Trichodesma zeylanicum (17%), Vigna indet. (17%), Vigna lanceolata var. lanceolata (17%), Vitex benthamiana (17%), Wahlenbergia indet. (1, 17%), Xenostegia tridentata (17%)*

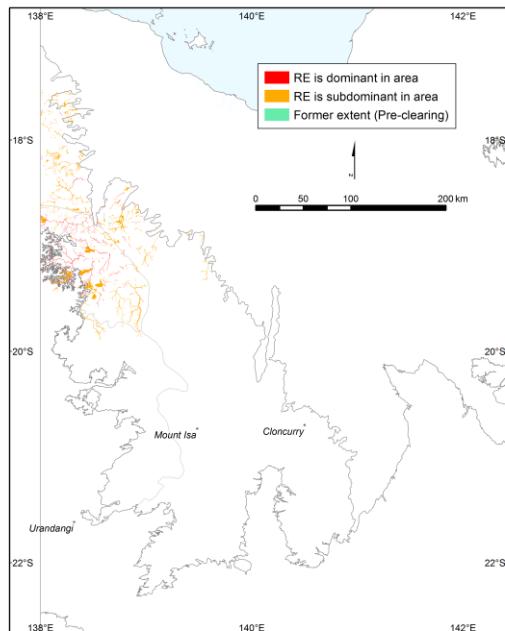
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.7f: *Eucalyptus camaldulensis* woodland on channels and levees (north)



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 28,373      28,316      99.80%

**Species recorded:** Total: 53; woody: 13; ground: 40; Avg. spp./site: 24.7; std dev.: 6.2, 3 site(s)

**Basal area:** Avg./site: 4.0 m<sup>2</sup>/ha, range: 2.5 - 6 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 3 site(s)

**Structural formation:** Woodland: 100%, 3 site(s)

**Representative sites:** 19466, 40124, 42071.

#### Stratum: Tree 1

**Height avg. = 21.0m, range 20-22m, 3 sites**

**Crown cover avg. = 32.7%, range 30.0-38.0%, 3 sites**

*Dominant species (relative cover, frequency): Eucalyptus camaldulensis (84, 100%), Lophostemon grandiflorus subsp. riparius (47, 33%)*

*Frequent species (cover, frequency): Eucalyptus camaldulensis (27, 100%), Lophostemon grandiflorus subsp. riparius (18, 33%)*

#### Stratum: Tree 2

**Height avg. = 9.0m, range 8-10m, 2 sites**

**Crown cover avg. = 22.5%, range 5.0-40.0%, 2 sites**

*Dominant species (relative cover, frequency): Eucalyptus camaldulensis (100, 33%), Terminalia bursarina (75, 33%), Lophostemon grandiflorus subsp. riparius (25, 33%)*

*Frequent species (cover, frequency): Eucalyptus camaldulensis (5, 33%), Lophostemon grandiflorus subsp. riparius (10, 33%), Terminalia bursarina (30, 33%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 3.0m, range 2.5-3.5m, 3 sites****Crown cover avg. = 10.7%, range 5.0-20.0%, 3 sites**

Dominant species (relative cover, frequency): *Acacia hammondii* (71, 33%), *Acacia hemsleyi* (54, 67%), *Vitex benthamiana* (25, 33%), *Vachellia farnesiana*\* (19, 67%), *Flueggea virosa* subsp. *melanthesoides* (18, 67%)

Frequent species (cover, frequency): *Acacia hemsleyi* (5, 67%), *Flueggea virosa* subsp. *melanthesoides* (3, 67%), *Vachellia farnesiana*\* (2, 67%), *Acacia hammondii* (5, 33%), *Eucalyptus camaldulensis* (1, 33%), *Ficus opposita* (33%), *Lysiphyllum cunninghamii* (33%), *Sesbania benthamiana* (3, 33%), *Vitex benthamiana* (5, 33%)

**Stratum: Shrub 2****Height avg. = 1.5m, range 1.5-1.5m, 2 sites****Crown cover avg. = 9.5%, range 1.0-18.0%, 2 sites**

Dominant species (relative cover, frequency): *Sesbania benthamiana* (64, 67%), *Vitex trifolia* var. *trifolia* (56, 33%), *Tephrosia brachyodon* var. *longifolia* (17, 33%)

Frequent species (cover, frequency): *Sesbania benthamiana* (3, 67%), *Tephrosia brachyodon* var. *longifolia* (3, 33%), *Vitex trifolia* var. *trifolia* (10, 33%)

**Stratum: Ground****Height avg. = 0.7m, range 0.5-1m, 3 sites****PFC avg. = 48.3%, range 24-86%, 3 sites**

Dominant species (relative cover, frequency): *Aristida holathera* var. *holathera* (74, 33%), *Eulalia aurea* (28, 67%), *Chionachne cyathopoda* (23, 100%), *Chrysopogon fallax* (17, 33%), *Cyperus betchei* subsp. *commiscens* (12, 33%)

Frequent species (cover, frequency): GRAMINOIDs: *Chionachne cyathopoda* (13, 100%), *Sarga plumosum* (4, 100%), *Eragrostis tenellula* (67%), *Eulalia aurea* (10, 67%), *Heteropogon contortus* (4, 67%), *Aristida holathera* var. *holathera* (20, 33%), *Cenchrus pennisetiformis*\* (33%), *Chrysopogon fallax* (15, 33%), *Cyperus betchei* subsp. *commiscens* (10, 33%), *Cyperus dactyloides* (33%), *Cyperus holoschoenus* (33%), *Cyperus* indet. (2, 33%), *Dichanthium fecundum* (2, 33%), *Enneapogon lindleyanus* (2, 33%), *Eragrostis confertiflora* (33%), *Setaria apiculata* (33%)

FORBS: *Indigofera linifolia* (100%), *Alternanthera nodiflora* (67%), *Cleome viscosa* (67%), *Melochia pyramidata*\* (67%), *Vigna lanceolata* (67%), *Xanthium occidentale*\* (2, 67%), *Abutilon hannii* (33%), *Achyranthes aspera* (33%), *Asteraceae* indet. (33%), *Bonamia* indet. (33%), *Convolvulaceae* indet. (33%), *Cucumis melo* (33%), *Evolvulus alsinoides* var. *vilosicalyx* (33%), *Indigofera colutea* (33%), *Passiflora foetida*\* (33%), *Phyllanthus maderaspatensis* (33%), *Phyllanthus virgatus* (33%), *Rhynchosia minima* (33%), *Scaevola* indet. (33%), *Senna planitiicola* (33%), *Sida trichopoda* (33%), *Tephrosia* indet. (33%), *Waltheria indica* (33%), *Xenostegia tridentata* (33%)

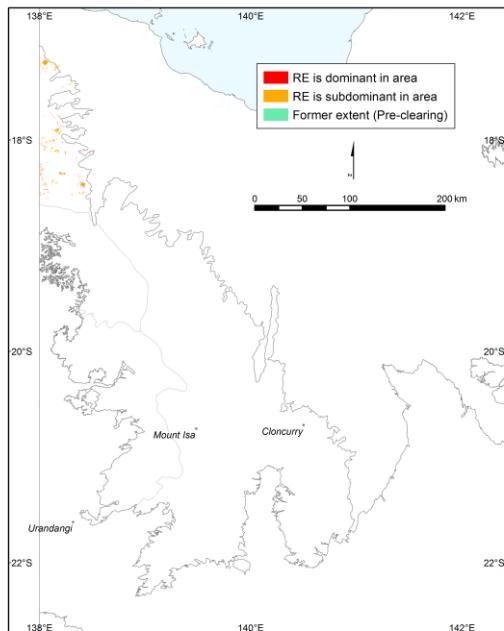
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.3.7g: Eucalyptus camaldulensis woodland in old sandstone gorges.



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 2,721 2,721 100.00%

**Species recorded:** Total: 32; woody: 13; ground: 19; Avg. spp./site: 32.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 3.0 m<sup>2</sup>/ha, range: 3.0 - 3 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Woodland: 100%, 1 site(s)

**Representative sites:** 40244.

#### Stratum: Tree 1

**Height avg. = 10.0m, 1 site**

**Crown cover avg. = 24.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus camaldulensis (92, 100%), Eucalyptus miniata (8, 100%)*

*Frequent species (cover, frequency): Eucalyptus camaldulensis (22, 100%), Eucalyptus miniata (2, 100%)*

#### Stratum: Shrub 1

**Height avg. = 2.3m, 1 site**

**Crown cover avg. = 75.0%, 1 site**

*Dominant species (relative cover, frequency): Tephrosia indet. (46, 100%), Melaleuca viridiflora (46, 100%), Acacia latifolia (7, 100%)*

*Frequent species (cover, frequency): Acacia hammondii (100%), Acacia latifolia (5, 100%), Acacia plectocarpa subsp. tanumbirinensis (100%), Dodonaea lanceolata var. lanceolata (100%), Melaleuca viridiflora (35, 100%), Tephrosia indet. (35, 100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 1.1m, 1 site****Crown cover avg. = 2.0%, 1 site**

*Dominant species (relative cover, frequency): Acacia alleniana (83, 100%), Sida macropoda (4, 100%), Sida hackettiana (4, 100%), Senna magnifolia (4, 100%), Breynia oblongifolia (4, 100%)*

*Frequent species (cover, frequency): Acacia alleniana (2, 100%), Breynia oblongifolia (100%), Senna magnifolia (100%), Sida hackettiana (100%), Sida macropoda (100%)*

**Stratum: Ground****Height avg. = 0.4m, 1 site****PFC avg. = 57.0%, 1 site**

*Dominant species (relative cover, frequency): Triodia bitextura (34, 100%), Paspalidium indet. (26, 100%), Fimbristylis tristachya (9, 100%), Blumea integrifolia (9, 100%), Eragrostis cumingii (9, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Cymbopogon obtectus (1, 100%), Cyperus aquatilis (100%), Cyperus cuspidatus (100%), Cyperus portae-tartari (100%), Digitaria breviglumis (3, 100%), Eragrostis cumingii (5, 100%), Fimbristylis tristachya (5, 100%), Lipocarpha microcephala (100%), Paspalidium indet. (15, 100%), Scleria indet. (100%), Triodia bitextura (20, 100%)*

*FORBS: Blumea integrifolia (5, 100%), Blumea saxatilis (1, 100%), Cajanus acutifolius (100%), Commelina agrostophylla (2, 100%), Ludwigia peploides subsp. montevidensis (100%), Nelsonia campestris (100%), Phyllanthus aridus (100%), Stemodia lythrifolia (100%)*

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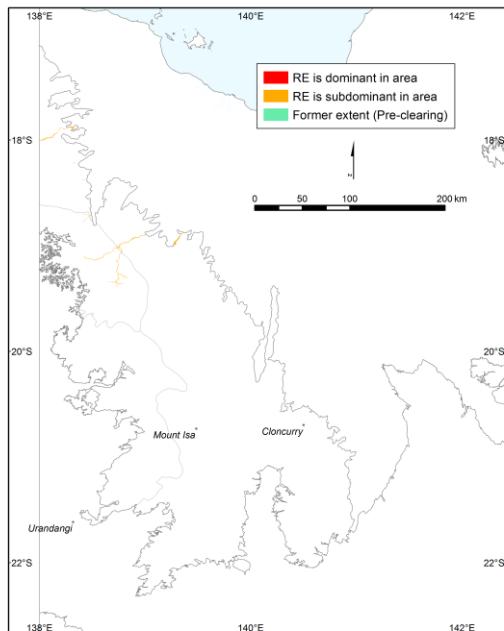
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.9a: Fringing closed forest on perennial watercourses and associated alluvium



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 3,290      3,277      99.61%

**Species recorded:** Total: 30; woody: 20; ground: 11; Avg. spp./site: 30.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 22.3 m<sup>2</sup>/ha, range: 22.3 - 22 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Closed-forest: 100%, 1 site(s)

**Representative sites:** 40535.

#### Stratum: Tree 1

**Height avg. = 26.0m, 1 site**

**Crown cover avg. = 100.0%, 1 site**

*Dominant species (relative cover, frequency): Nauclea orientalis (43, 100%), Livistona rigida (26, 100%), Ficus racemosa (19, 100%), Melaleuca fluviatilis (12, 100%)*

*Frequent species (cover, frequency): Corymbia bella (100%), Eucalyptus camaldulensis (100%), Ficus aculeata var. aculeata (100%), Ficus racemosa (22, 100%), Livistona rigida (30, 100%), Melaleuca fluviatilis (14, 100%), Nauclea orientalis (50, 100%), Vachellia nilotica\* (100%)*

#### Stratum: Tree 2

**Height avg. = 13.0m, 1 site**

**Crown cover avg. = 3.0%, 1 site**

*Dominant species (relative cover, frequency): Atalaya hemiglaucha (50, 100%), Melaleuca fluviatilis (25, 100%), Vachellia nilotica\* (3, 100%), Timonius timon var. timon (3, 100%), Terminalia hadleyana subsp. carpentariae (3, 100%)*

*Frequent species (cover, frequency): Acacia hemsleyi (100%), Atalaya hemiglaucha (2, 100%), Cordia dichotoma (100%), Corymbia terminalis (100%), Gymnanthera oblonga (100%), Lophostemon grandiflorus subsp. riparius (100%), Lysiphylgium cunninghamii (100%), Melaleuca fluviatilis (1, 100%), Melia azedarach (100%), Terminalia hadleyana subsp. carpentariae (100%), Timonius timon var. timon (100%), Vachellia nilotica\* (100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

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**Stratum: Shrub 1****Height avg. = 1.5m, 1 site****Crown cover avg. = 10.0%, 1 site**

Dominant species (relative cover, frequency): *Flueggea virosa* subsp. *melanthesoides* (98, 100%), *Cordia dichotoma* (1, 100%), *Acacia hemsleyi* (1, 100%)

Frequent species (cover, frequency): *Acacia hemsleyi* (100%), *Cordia dichotoma* (100%), *Flueggea virosa* subsp. *melanthesoides* (10, 100%)

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**Stratum: Ground****Height avg. = 0.5m, 1 site****PFC avg. = 3.0%, 1 site**

Dominant species (relative cover, frequency): *Livistona rigida* (67, 100%), *Xanthium occidentale*\* (3, 100%), *Sida acuta*\* (3, 100%), *Physalis angulata*\* (3, 100%), *Phragmites australis* (3, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Cyperus javanicus* (100%), *Phragmites australis* (100%)

FORBS: *Bidens bipinnata*\* (100%), *Cardiospermum halicacabum* var. *halicacabum*\* (100%), *Cleome viscosa* (100%), *Euphorbia hirta*\* (100%), *Livistona rigida* (2, 100%), *Melochia pyramidata*\* (100%), *Physalis angulata*\* (100%), *Sida acuta*\* (100%), *Xanthium occidentale*\* (100%)

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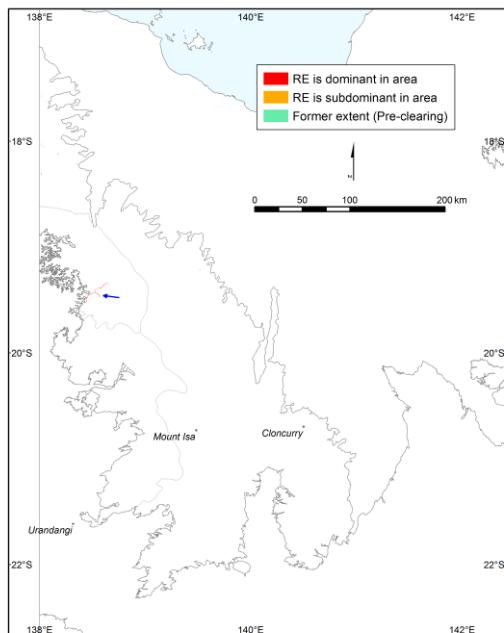
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.3.9b: Fringing woodland of *Melaleuca leucadendra*, *Lophostemon grandiflorus*, *Eucalyptus camaldulensis* and *Livistona rigida*



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 722 722 100.00%

Species recorded: Total: 29; woody: 17; ground: 14; Avg. spp./site: 29.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 9.0 m<sup>2</sup>/ha, range: 9.0 - 9 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Woodland: 100%, 1 site(s)

Representative sites: 19469.

#### Stratum: Tree 1

Height avg. = 27.0m, 1 site

Crown cover avg. = 35.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia bella* (57, 100%), *Melaleuca fluviatilis* (43, 100%)

Frequent species (cover, frequency): *Corymbia bella* (20, 100%), *Eucalyptus camaldulensis* (100%), *Melaleuca fluviatilis* (15, 100%)

#### Stratum: Tree 2

Height avg. = 13.0m, 1 site

Crown cover avg. = 40.0%, 1 site

Dominant species (relative cover, frequency): *Livistona rigida* (50, 100%), *Lophostemon grandiflorus* subsp. *riparius* (38, 100%), *Melia azedarach* (13, 100%)

Frequent species (cover, frequency): *Livistona rigida* (20, 100%), *Lophostemon grandiflorus* subsp. *riparius* (15, 100%), *Melia azedarach* (5, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Tree 3****Height avg. = 5.0m, 1 site****Crown cover avg. = 35.0%, 1 site***Dominant species (relative cover, frequency): Melaleuca bracteata (99, 100%)**Frequent species (cover, frequency): Clitoria ternatea\* (100%), Melaleuca bracteata (35, 100%), Passiflora foetida\* (100%)***Stratum: Shrub 1****Height avg. = 2.2m, 1 site****Crown cover avg. = 6.0%, 1 site***Dominant species (relative cover, frequency): Flueggea virosa subsp. melanthesoides (77, 100%), Grewia retusifolia (15, 100%), Parkinsonia aculeata\* (2, 100%), Lysiphylgium cunninghamii (2, 100%), Ficus opposita (2, 100%)**Frequent species (cover, frequency): Bridelia indet. (100%), Carissa lanceolata (100%), Ficus opposita (100%), Flueggea virosa subsp. melanthesoides (5, 100%), Grewia retusifolia (1, 100%), Lysiphylgium cunninghamii (100%), Parkinsonia aculeata\* (100%)***Stratum: Ground****Height avg. = 0.7m, 1 site****PFC avg. = 8.0%, 1 site***Dominant species (relative cover, frequency): Heteropogon contortus (33, 100%), Poaceae indet. (22, 100%), Dichanthium fecundum (22, 100%), Chrysopogon fallax (11, 100%), Vachellia farnesiana\* (1, 100%)**Frequent species (cover, frequency): GRAMINOIDs: Chrysopogon fallax (1, 100%), Cyperus vaginatus (100%), Dichanthium fecundum (2, 100%), Heteropogon contortus (3, 100%), Poaceae indet. (2, 100%)**FORBS: Acacia hemsleyi (100%), Achyranthes aspera (100%), Bidens bipinnata\* (100%), Euphorbia hirta\* (100%), Malvastrum americanum (100%), Phyllanthus virgatus (100%), Rhynchosia minima (100%), Sida acuta\* (100%), Vachellia farnesiana\* (100%)*

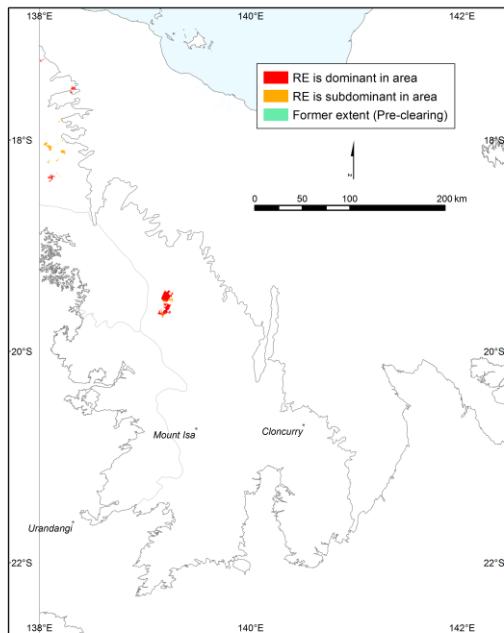

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.1: Eucalyptus miniata woodland on red earths on laterised plateaus



**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 15,314 15,314 100.00%

**Species recorded:** Total: 53; woody: 16; ground: 37; Avg. spp./site: 29.0; std dev.: 3.0, 2 site(s)

**Basal area:** Avg./site: 5.1 m<sup>2</sup>/ha, range: 3.3 - 7 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 2 site(s)

**Structural formation:** Woodland: 50%; open-woodland: 50%, 2 site(s)

**Representative sites:** 19433, 40566.

#### Stratum: Tree 1

**Height avg. = 15.5m, range 12-19m, 2 sites**

**Crown cover avg. = 25.5%, range 14.0-37.0%, 2 sites**

*Dominant species (relative cover, frequency): Eucalyptus miniata (93, 100%), Corymbia capricornia (14, 50%)*

*Frequent species (cover, frequency): Eucalyptus miniata (25, 100%), Corymbia capricornia (2, 50%)*

#### Stratum: Tree 2

**Height avg. = 7.5m, range 6-9m, 2 sites**

**Crown cover avg. = 10.5%, range 7.0-14.0%, 2 sites**

*Dominant species (relative cover, frequency): Eucalyptus miniata (53, 100%), Corymbia ferruginea subsp. ferruginea (47, 50%), Corymbia capricornia (29, 50%), Erythrophleum chlorostachys (18, 50%)*

*Frequent species (cover, frequency): Eucalyptus miniata (6, 100%), Corymbia capricornia (2, 50%), Corymbia ferruginea subsp. ferruginea (8, 50%), Erythrophleum chlorostachys (3, 50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 1****Height avg. = 2.9m, range 2.8-3m, 2 sites****Crown cover avg. = 26.0%, range 8.0-44.0%, 2 sites**

Dominant species (relative cover, frequency): *Alphitonia excelsa* (67, 50%), *Acacia drepanocarpa* subsp. *drepanocarpa* (27, 50%), *Acacia hammondii* (4, 50%)

Frequent species (cover, frequency): *Acacia drepanocarpa* subsp. *drepanocarpa* (12, 50%), *Acacia hammondii* (2, 50%), *Alphitonia excelsa* (30, 50%), *Bossiaea bossiaeoides* (50%), *Clerodendrum floribundum* (50%), *Corymbia ferruginea* subsp. *ferruginea* (50%), *Erythrophleum chlorostachys* (50%), *Grevillea mimosoides* (50%), *Petalostigma pubescens* (50%), *Santalum lanceolatum* (50%)

**Stratum: Shrub 2****Height avg. = 1.1m, range 1-1.2m, 2 sites****Crown cover avg. = 23.0%, range 10.0-36.0%, 2 sites**

Dominant species (relative cover, frequency): *Dodonaea hispidula* var. *hispidula* (63, 100%), *Acacia ancistrocarpa* (44, 50%), *Petalostigma pubescens* (28, 50%), *Acacia shirleyi* (1, 50%)

Frequent species (cover, frequency): *Dodonaea hispidula* var. *hispidula* (21, 100%), *Acacia ancistrocarpa* (8, 50%), *Acacia hammondii* (50%), *Acacia shirleyi* (50%), *Bossiaea bossiaeoides* (50%), *Dodonaea barklyana* (50%), *Petalostigma pubescens* (5, 50%)

**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.6m, 2 sites****PFC avg. = 54.0%, range 32-76%, 2 sites**

Dominant species (relative cover, frequency): *Triodia bitextura* (77, 100%), *Schizachyrium fragile* (7, 100%), *Setaria apiculata* (6, 50%), *Zornia prostrata* var. *prostrata* (6, 50%), *Corchorus sericeus* subsp. *densiflorus* (6, 50%)

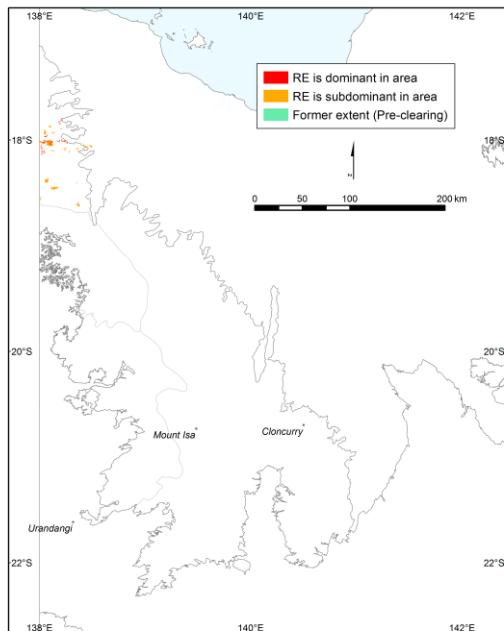
Frequent species (cover, frequency): GRAMINOIDs: *Schizachyrium fragile* (5, 100%), *Triodia bitextura* (40, 100%), *Aristida holathera* var. *holathera* (50%), *Aristida inaequiglumis* (2, 50%), *Chrysopogon fallax* (2, 50%), *Eragrostis confertiflora* (50%), *Fimbristylis neilsonii* (1, 50%), *Scleria rugosa* (50%), *Setaria apiculata* (5, 50%), *Thaumastochloa pubescens* (1, 50%)

FORBS: *Acacia torulosa* (50%), *Boerhavia* indet. (50%), *Cajanus marmoratus* (50%), *Chamaecrista symonii* (50%), *Corchorus sericeus* subsp. *densiflorus* (2, 50%), *Crotalaria* indet. (50%), *Crotalaria ramosissima* (50%), *Desmodium muelleri* (50%), *Erythroxylum ellipticum* (50%), *Euphorbia* indet. (50%), *Euphorbia mitchelliana* var. *mitchelliana* (50%), *Euphorbia petala* (50%), *Euphorbia schultzii* var. *comans* (50%), *Evolvulus alsinoides* var. *decumbens* (50%), *Heliotropium leptaleum* (50%), *Hibiscus burtonii* (50%), *Indigofera linifolia* (50%), *Marsdenia* indet. (50%), *Melhania oblongifolia* (50%), *Petalostigma banksii* (50%), *Phyllanthus virgatus* (50%), *Polycarpaea corymbosa* (50%), *Portulaca bicolor* (50%), *Portulaca pilosa*\* (50%), *Sauvagesia* indet. (50%), *Tephrosia* indet. (50%), *Zornia prostrata* var. *prostrata* (5, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**1.5.10a: Mixed shrubland dominated by Acacia spp. and Melaleuca spp. on older sandy alluvium**

D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 4,441 4,441 100.00%

**Species recorded:** Total: 54; woody: 13; ground: 44; Avg. spp./site: 31.5; std dev.: 0.5, 2 site(s)

**Basal area:** Avg./site: 1.0 m<sup>2</sup>/ha, range: 1.0 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Tall shrubland: 100%, 2 site(s)

**Representative sites:** 40324, 40385.

**Stratum: Emergent**

**Height avg. = 6.3m, range 4.5-8m, 2 sites**

**Crown cover avg. = 0.5%, range 0.0-1.0%, 2 sites**

*Dominant species (relative cover, frequency): Melaleuca nervosa (83, 50%), Eucalyptus pruinosa subsp. pruinosa (50, 50%), Eucalyptus leucophloia subsp. euroa (50, 50%), Melaleuca viridiflora (8, 50%), Corymbia polycarpa (8, 50%)*

*Frequent species (cover, frequency): Corymbia polycarpa (50%), Eucalyptus leucophloia subsp. euroa (50%), Eucalyptus pruinosa subsp. pruinosa (50%), Melaleuca nervosa (1, 50%), Melaleuca viridiflora (50%)*

**Stratum: Shrub 1**

**Height avg. = 3.3m, range 2.5-4m, 2 sites**

**Crown cover avg. = 39.0%, range 34.0-44.0%, 2 sites**

*Dominant species (relative cover, frequency): Acacia hammondii (87, 100%), Melaleuca viridiflora (15, 50%), Petalostigma banksii (12, 50%)*

*Frequent species (cover, frequency): Acacia hammondii (33, 100%), Jacksonia lateritica (50%), Melaleuca nervosa (50%), Melaleuca viridiflora (5, 50%), Petalostigma banksii (4, 50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 2****Height avg. = 1.6m, range 1.2-2m, 2 sites****Crown cover avg. = 14.0%, range 1.0-27.0%, 2 sites**

Dominant species (relative cover, frequency): *Melaleuca viridiflora* (69, 100%), *Petalostigma quadriloculare* (29, 50%), *Melaleuca nervosa* (15, 50%), *Jacksonia odontoclada* (8, 50%), *Grevillea dryandri* subsp. *dryandri* (8, 50%)

Frequent species (cover, frequency): *Fimbristylis sphaerocephala* (50%), *Melaleuca viridiflora* (8, 100%), *Acacia calligera* (50%), *Grevillea dryandri* subsp. *dryandri* (50%), *Jacksonia odontoclada* (50%), *Melaleuca nervosa* (4, 50%), *Petalostigma quadriloculare* (8, 50%)

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.5m, 2 sites****PFC avg. = 80.5%, range 74-87%, 2 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (43, 50%), *Triodia bitextura* (40, 100%), *Chrysopogon fallax* (18, 100%), *Thaumastochloa major* (8, 50%), *Stylium adenophorum* (6, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Chrysopogon fallax* (13, 100%), *Fimbristylis sphaerocephala* (100%), *Schizachyrium fragile* (4, 100%), *Triodia bitextura* (35, 100%), *Aristida hygrometrica* (50%), *Eragrostis cumingii* (2, 50%), *Eriachne melicacea* (2, 50%), *Eriachne obtusa* (1, 50%), *Eriachne* sp. (Dugald River B.K.Simon+ 3007) (50%), *Eulalia aurea* (3, 50%), *Fimbristylis dichotoma* (50%), *Mnesithea formosa* (50%), *Paspalidium rarum* (50%), *Rhynchospora pterochaeta* (50%), *Scleria* indet. (50%), *Thaumastochloa major* (7, 50%), *Triodia pungens* (30, 50%)

FORBS: *Murdannia graminea* (100%), *Blumea diffusa* (50%), *Blumea integrifolia* (1, 50%), *Bonamia media* (50%), *Buchnera linearis* (50%), *Buchnera ramosissima* (50%), *Cullen plumosum* (50%), *Drosera burmanni* (50%), *Drosera finlaysoniana* (50%), *Euphorbia* indet. (50%), *Grevillea dryandri* subsp. *dryandri* (50%), *Hybanthus aurantiacus* (50%), *Iotasperma australiense* (1, 50%), *Kohautia australiensis* (50%), *Merremia incisa* (50%), *Mitrasacme* indet. (50%), *Phyllanthus* indet. (50%), *Polycarpaea* indet. (50%), *Polygala longifolia* (50%), *Polygala pendulina* (50%), *Polymeria ambigua* (50%), *Polymeria lanata* (50%), *Senna* indet. (50%), *Stackhousia intermedia* (50%), *Streptoglossa decurrens* (50%), *Stylium adenophorum* (5, 50%), *Stylium* indet. (50%)

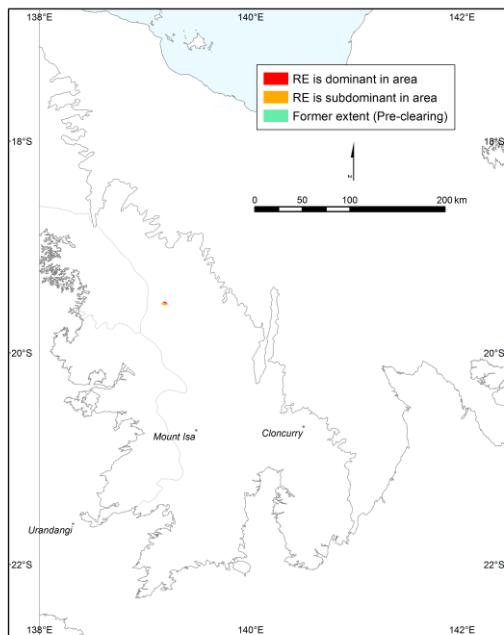
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.10b: Mixed swampy shrubland with emergent *Eucalyptus pruinosa* on the edge of Tertiary plateaus



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 599 599 100.00%

Species recorded: Total: 34; woody: 7; ground: 27; Avg. spp./site: 34.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Open-scrub: 100%, 1 site(s)

Representative sites: 19435.

#### Stratum: Emergent

Height avg. = 3.5m, 1 site

Crown cover avg. = 10.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (80, 100%), *Melaleuca stenostachya* (20, 100%)

Frequent species (cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (8, 100%), *Melaleuca stenostachya* (2, 100%)

#### Stratum: Shrub 1

Height avg. = 1.5m, 1 site

Crown cover avg. = 75.0%, 1 site

Dominant species (relative cover, frequency): *Melaleuca viridiflora* (47, 100%), *Acacia torulosa* (33, 100%), *Petalostigma quadriloculare* (11, 100%), *Acacia limbata* (7, 100%), *Dodonaea physocarpa* (3, 100%)

Frequent species (cover, frequency): *Acacia limbata* (5, 100%), *Acacia torulosa* (25, 100%), *Dodonaea physocarpa* (2, 100%), *Melaleuca viridiflora* (35, 100%), *Petalostigma quadriloculare* (8, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

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**Stratum: Ground****Height avg. = 0.4m, 1 site****PFC avg. = 57.0%, 1 site**

Dominant species (relative cover, frequency): *Triodia bitextura* (84, 100%), *Chrysopogon fallax* (8, 100%), *Eulalia aurea* (3, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida pruinosa* (100%), *Chrysopogon fallax* (5, 100%), *Eragrostis cumingii* (100%), *Eulalia aurea* (2, 100%), *Paspalidium rarum* (100%), *Schizachyrium fragile* (100%), *Scleria rugosa* (100%), *Triodia bitextura* (50, 100%)

FORBS: *Blumea indet.* (100%), *Buchnera linearis* (100%), *Carissa lanceolata* (100%), *Cassytha indet.* (100%), *Convolvulaceae indet.* (100%), *Drosera burmanni* (100%), *Drosera finlaysoniana* (100%), *Goodenia gracilis* (100%), *Grevillea dryandri subsp. dryandri* (100%), *Grevillea wickhamii subsp. aprica* (100%), *Iphigenia indica* (100%), *Oldenlandia galiooides* (100%), *Phyllanthus minutiflorus* (100%), *Polygala longifolia* (100%), *Stackhousia indet.* (100%), *Stylium floodii* (100%), *Tephrosia leptoclada* (100%), *Thysanotus chinensis* (100%), *Zornia muriculata subsp. angustata* (100%)

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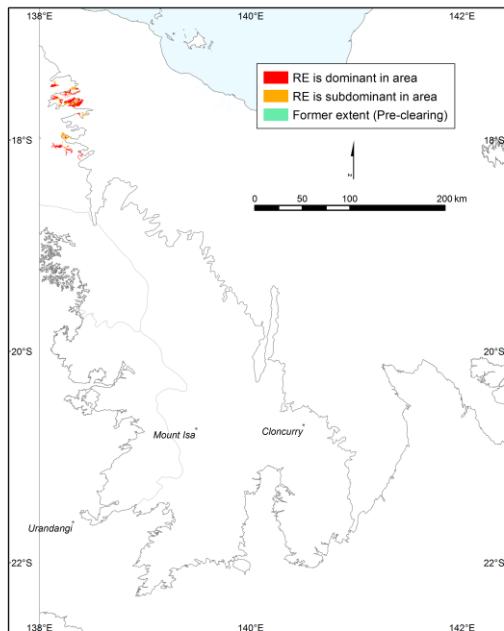
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.5.11: Melaleuca citrolens and/or Eucalyptus pruinosa low open woodland on sandy plains



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 15,306 15,285 99.86%

Species recorded: Total: 42; woody: 13; ground: 31; Avg. spp./site: 25.0; std dev.: 6.0, 2 site(s)

Basal area: Avg./site: 1.8 m<sup>2</sup>/ha, range: 1.3 - 2 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative sites: 40164, 42755.

#### Stratum: Tree 1

Height avg. = 4.8m, range 4.5-5m, 2 sites

Crown cover avg. = 11.0%, range 7.0-15.0%, 2 sites

Dominant species (relative cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (58, 100%), *Melaleuca citrolens* (40, 100%), *Melaleuca viridiiflora* (1, 50%), *Terminalia canescens* (1, 50%), *Eucalyptus leucophloia* subsp. *euroa* (1, 50%)

Frequent species (cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (7, 100%), *Melaleuca citrolens* (5, 100%), *Eucalyptus leucophloia* subsp. *euroa* (50%), *Melaleuca viridiiflora* (50%), *Terminalia canescens* (50%)

#### Stratum: Tree 2

Height avg. = 2.5m, 1 site

Crown cover avg. = 2.0%, 1 site

Dominant species (relative cover, frequency): *Melaleuca citrolens* (67, 50%), *Eucalyptus pruinosa* subsp. *pruinosa* (33, 50%)

Frequent species (cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (1, 50%), *Melaleuca citrolens* (2, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 2.0m, range 1.5-2.5m, 2 sites****Crown cover avg. = 1.5%, range 1.0-2.0%, 2 sites**

Dominant species (relative cover, frequency): *Petalostigma banksii* (91, 50%), *Terminalia canescens* (83, 50%), *Denhamia cunninghamii* (9, 50%), *Melaleuca citrolens* (8, 50%), *Eucalyptus pruinosa* subsp. *pruinosa* (8, 50%)

Frequent species (cover, frequency): *Denhamia cunninghamii* (50%), *Eucalyptus pruinosa* subsp. *pruinosa* (50%), *Melaleuca citrolens* (50%), *Petalostigma banksii* (1, 50%), *Terminalia canescens* (1, 50%)

**Stratum: Shrub 2****Height avg. = 0.7m, range 0.6-0.8m, 2 sites****Crown cover avg. = 4.5%, range 1.0-8.0%, 2 sites**

Dominant species (relative cover, frequency): *Carissa lanceolata* (57, 100%), *Petalostigma banksii* (24, 50%), *Dodonaea physocarpa* (12, 50%), *Acacia hammondii* (12, 50%), *Melaleuca citrolens* (10, 100%)

Frequent species (cover, frequency): *Carissa lanceolata* (2, 100%), *Melaleuca citrolens* (1, 100%), *Acacia hammondii* (1, 50%), *Corchorus sericeus* (50%), *Denhamia cunninghamii* (50%), *Dodonaea physocarpa* (1, 50%), *Flueggea virosa* subsp. *melanthesoides* (50%), *Grevillea pteridifolia* (50%), *Petalostigma banksii* (2, 50%), *Terminalia canescens* (50%)

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.4m, 2 sites****PFC avg. = 55.5%, range 51-60%, 2 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (50, 100%), *Schizachyrium fragile* (34, 100%), *Chrysopogon* indet. (10, 50%), *Acacia hammondii* (8, 50%), *Chrysopogon fallax* (4, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Eragrostis cumingii* (1, 100%), *Eriachne ciliata* (100%), *Schizachyrium fragile* (20, 100%), *Triodia pungens* (28, 100%), *Aristida hygrometrica* (50%), *Bulbostylis barbata* (50%), *Chrysopogon fallax* (2, 50%), *Chrysopogon* indet. (6, 50%), *Cyperus orgadophilus* (50%), *Enneapogon lindleyanus* (50%), *Eragrostis tenellula* (50%), *Eriachne mucronata* (50%), *Fimbristylis* indet. (2, 50%), *Mnesithea formosa* (50%)

FORBS: *Tephrosia leptoclada* (100%), *Acacia hammondii* (4, 50%), *Blumea integrifolia* (50%), *Bonamia* indet. (50%), *Buchnera ramosissima* (50%), *Crotalaria brevis* (50%), *Gomphrena* indet. (50%), *Indigofera linifolia* (50%), *Ipomoea* indet. (50%), *Marsdenia viridiflora* subsp. *tropica* (50%), *Murdannia graminea* (50%), *Oldenlandia galiooides* (50%), *Oldenlandia mitrasacmoides* (50%), *Petalostigma banksii* (50%), *Polycarphaea corymbosa* (50%), *Zornia adenophora* (50%), *Zornia muriculata* (50%)

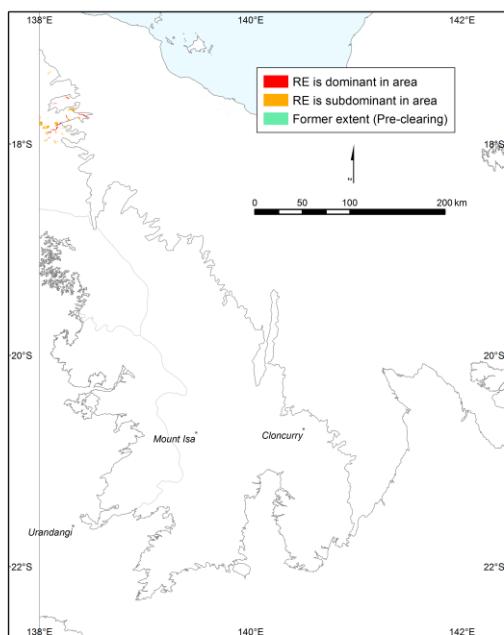
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**1.5.11x1: Eucalyptus chlorophylla, Melaleuca viridiflora and Melaleuca citrolens woodland**


**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 3,327      3,327      100.00%

**Species recorded:** Total: 33; woody: 13; ground: 23; Avg. spp./site: 33.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 2.8 m<sup>2</sup>/ha, range: 2.8 - 3 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low woodland: 100%, 1 site(s)

**Representative sites:** 60715.

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**Stratum: Tree 1**

**Height avg. = 8.0m, 1 site**

**Crown cover avg. = 29.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus chlorophylla (65, 100%), Melaleuca viridiflora var. viridiflora (21, 100%), Melaleuca citrolens (14, 100%)*

*Frequent species (cover, frequency): Corymbia polycarpa (100%), Eucalyptus chlorophylla (19, 100%), Melaleuca citrolens (4, 100%), Melaleuca viridiflora var. viridiflora (6, 100%), Tinospora smilacina (100%)*

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**Stratum: Tree 2**

**Height avg. = 3.5m, 1 site**

**Crown cover avg. = 4.0%, 1 site**

*Dominant species (relative cover, frequency): Melaleuca viridiflora var. viridiflora (49, 100%), Eucalyptus chlorophylla (49, 100%), Santalum lanceolatum (2, 100%)*

*Frequent species (cover, frequency): Eucalyptus chlorophylla (2, 100%), Melaleuca viridiflora var. viridiflora (2, 100%), Santalum lanceolatum (100%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 1.2m, 1 site****Crown cover avg. = 1.0%, 1 site**

*Dominant species (relative cover, frequency): Acacia hammondii (56, 100%), Terminalia hadleyana subsp. carpentariae (6, 100%), Terminalia canescens (6, 100%), Petalostigma quadriloculare (6, 100%), Melaleuca viridiflora var. viridiflora (6, 100%)*

*Frequent species (cover, frequency): Acacia hammondii (1, 100%), Carissa lanceolata (100%), Dodonaea oxyptera (100%), Flueggea virosa subsp. melanthesoides (100%), Melaleuca citrolens (100%), Melaleuca viridiflora var. viridiflora (100%), Petalostigma quadriloculare (100%), Terminalia canescens (100%), Terminalia hadleyana subsp. carpentariae (100%)*

**Stratum: Ground****Height avg. = 0.4m, 1 site****PFC avg. = 54.0%, 1 site**

*Dominant species (relative cover, frequency): Eriachne ciliata (25, 100%), Aristida ingrata (23, 100%), Triodia bitextura (14, 100%), Waltheria indica (11, 100%), Schizachyrium fragile (7, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Aristida holathera var. holathera (100%), Aristida hygrometrica (100%), Aristida ingrata (13, 100%), Chrysopogon fallax (4, 100%), Eragrostis indet. (100%), Eriachne ciliata (14, 100%), Eriachne obtusa (3, 100%), Eulalia aurea (100%), Schizachyrium fragile (4, 100%), Setaria surgens (1, 100%), Sporobolus australasicus (100%), Triodia bitextura (8, 100%)*

*FORBS: Blumea indet. (100%), Carissa lanceolata (100%), Corchorus sericeus (100%), Evolvulus alsinoides (100%), Flueggea virosa subsp. melanthesoides (100%), Gomphrena lanata (100%), Hibiscus indet. (1, 100%), Portulaca bicolor (100%), Portulaca sp. (Rockhampton Downs S.T. Blake 17854) (100%), Pterocaulon indet. (100%), Waltheria indica (6, 100%)*

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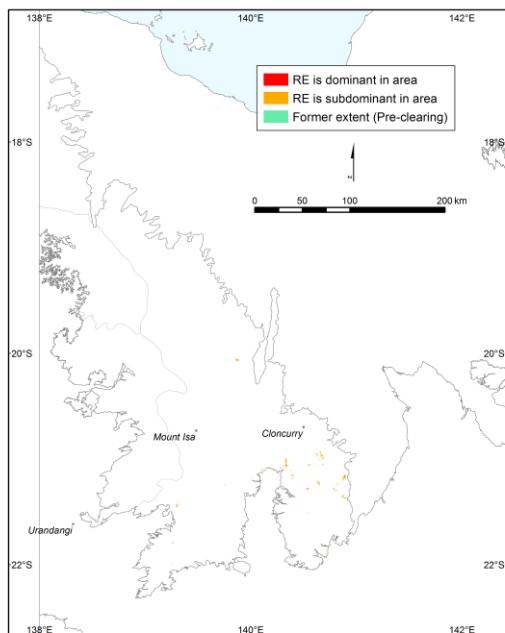
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.5.12: *Triodia longiceps* hummock grassland on older alluvium



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 1,967 1,919 97.57%

**Species recorded:** Total: 82; woody: 12; ground: 72; Avg. spp./site: 35.0; std dev.: 6.7, 3 site(s)

**Basal area:** 0

**Structural formation:** Hummock grassland: 100%, 3 site(s)

**Representative sites:** 19347, 19374, 59640.

#### Stratum: Emergent

**Height avg. = 5.0m, range 5-5m, 2 sites**

**Crown cover avg. = 1.7%, range 0.0-4.0%, 3 sites**

*Dominant species (relative cover, frequency):* *Corymbia terminalis* (91, 33%), *Acacia bivenosa* (67, 33%), *Vachellia bidwillii* (33, 33%), *Grevillea striata* (33, 33%), *Eucalyptus leucophylla* (33, 33%)

*Frequent species (cover, frequency):* *Acacia bivenosa* (3, 33%), *Acacia chisholmii* (33%), *Atalaya hemiglaucha* (33%), *Capparis loranthifolia* var. *loranthifolia* (33%), *Corymbia terminalis* (1, 33%), *Eremophila longifolia* (33%), *Eucalyptus leucophloia* subsp. *euroa* (1, 33%), *Eucalyptus leucophylla* (33%), *Grevillea striata* (33%), *Senna artemisioides* subsp. *oligophylla* (33%), *Senna glutinosa* subsp. *pruinosa* (33%), *Vachellia bidwillii* (33%)

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 1.1m, range 0.5-1.5m, 3 sites****PFC avg. = 48.7%, range 34-75%, 3 sites**

Dominant species (relative cover, frequency): *Triodia longiceps* (81, 100%), *Tripogon loliiformis* (8, 33%), *Dichanthium fecundum* (5, 33%), *Brachyachne convergens* (5, 33%), *Trianthema triquetra* (4, 67%)

Frequent species (cover, frequency): GRAMINOIDs: *Enneapogon polypylus* (100%), *Sporobolus australasicus* (1, 100%), *Triodia longiceps* (44, 100%), *Aristida latifolia* (67%), *Chloris virgata*\* (67%), *Dactyloctenium radulans* (1, 67%), *Sporobolus actinocladus* (1, 67%), *Aristida contorta* (33%), *Aristida holathera* var. *holathera* (33%), *Aristida longicollis* (33%)

*Brachyachne convergens* (2, 33%), *Bulbostylis barbata* (33%), *Cenchrus pennisetiformis*\* (2, 33%), *Cymbopogon bombycinus* (33%), *Dichanthium fecundum* (2, 33%), *Dichanthium sericeum* subsp. *humilius* (33%), *Digitaria ctenantha* (33%), *Echinochloa turneriana* (33%), *Enneapogon avenaceus* (33%), *Eragrostis* indet. (33%), *Eriachne pulchella* (33%), *Fimbristylis bisumbellata* (33%), *Fimbristylis dichotoma* (1, 33%), *Paspalidium rarum* (33%), *Perotis rara* (33%), *Tripogon loliiformis* (3, 33%)

FORBS: *Portulaca oleracea*\* (100%), *Cleome viscosa* (1, 67%), *Euphorbia tannensis* (67%), *Evolvulus alsinoides* var. *vilosicalyx* (67%), *Ipomoea coptica* (67%), *Pterocaulon serrulatum* (67%), *Ptilotus fusiformis* (67%), *Salsola australis* (67%), *Sida* indet. (67%), *Trianthema triquetra* (3, 67%), *Abutilon hannii* (33%), *Achyranthes aspera* (33%), *Aeschynomene indica* (33%), *Alternanthera angustifolia* (33%), *Atalaya hemiglaauca* (33%), *Blumea saxatilis* (33%), *Boerhavia* indet. (33%), *Bonamia media* (33%), *Bonamia pannosa* (33%), *Carissa lanceolata* (33%), *Commelina ensifolia* (33%), *Corchorus trilocularis* (33%), *Crotalaria medicaginea* (33%), *Evolvulus alsinoides* (33%), *Goodenia vilmoriniae* (33%), *Gossypium australe* (33%), *Heliotropium cunninghamii* (33%), *Heliotropium tenuifolium* (33%), *Indigofera colutea* (33%), *Indigofera hirsuta* (33%), *Indigofera linnaei* (33%), *Neptunia gracilis* (33%), *Phyllanthus* indet. (33%), *Ptilotus extenuatus* (33%), *Rhynchosia* indet. (1, 33%), *Senna artemisioides* subsp. *oligophylla* (33%), *Senna planitiicola* (33%), *Sida fibulifera* (33%), *Sida spinosa*\* (33%), *Solanum esuriale* (33%), *Solanum* indet. (33%), *Solanum quadriloculatum* (33%), *Solanum succosum* (33%), *Tribulus terrestris* (33%), *Trichodesma zeylanicum* (33%), *Vigna* indet. (33%)

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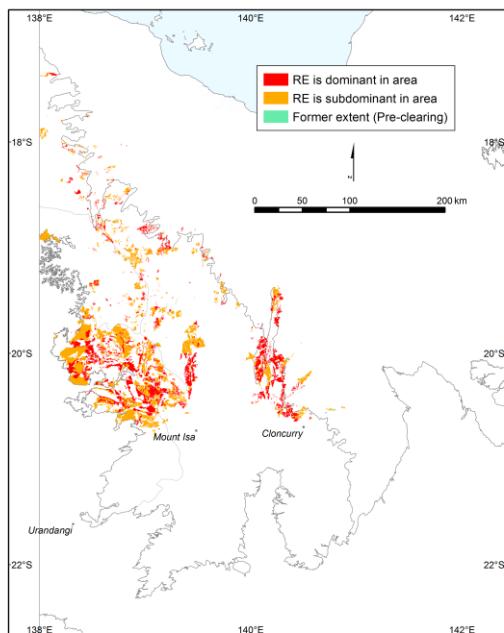
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.5.13: Eucalyptus pruinosa low open woodland on older alluvial and residual soils



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 318,467 317,149 99.59%

**Species recorded:** Total: 262; woody: 66; ground: 213; Avg. spp./site: 31.1; std dev.: 12.8, 25 site(s)

**Basal area:** Avg./site: 1.9 m<sup>2</sup>/ha, range: 0.5 - 5 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 23 site(s)

**Structural formation:** Low open-woodland: 92%; low woodland: 8%, 25 site(s)

**Representative sites:** 19397, 19402, 19426, 19428, 19431, 19432, 23402, 23437, 24282, 40570, 40880, 42078, 42127, 42148, 42162, 42163, 42177, 42185, 42187, 42191, 42695, 42776, 59638, 60794, 60795.

#### Stratum: Tree 1

**Height avg. = 6.2m, range 4-9m, 25 sites**

**Crown cover avg. = 10.7%, range 3.0-22.0%, 25 sites**

*Dominant species (relative cover, frequency): Eucalyptus pruinosa subsp. pruinosa (90, 92%)*

*Frequent species (cover, frequency): Eucalyptus pruinosa subsp. pruinosa (10, 92%), Corymbia terminalis (1, 20%), Acacia cambagei (1, 12%), Atalaya hemiglaucha (1, 8%), Corymbia aparrerinja (3, 8%), Ventilago viminalis (1, 8%), Acacia elachantha (4%), Corymbia grandifolia subsp. grandifolia (6, 4%), Denhamia cunninghamii (4%), Dolichandrone heterophylla (4%), Eremophila bignoniiflora (4%), Eucalyptus chlorophylla (4%), Eucalyptus leucophloia subsp. euroa (2, 4%), Eucalyptus leucophylla (4%), Eucalyptus leucophylla x E. pruinosa (5, 4%), Eucalyptus odontocarpa (3, 4%), Hakea lorea subsp. lorea (1, 4%), Lysiphylgium cunninghamii (4%), Melaleuca citrolens (4%), Psydrax indet. (4%)*

#### Stratum: Tree 2

**Height avg. = 3.9m, range 3-5m, 7 sites**

**Crown cover avg. = 4.6%, range 1.0-7.0%, 7 sites**

*Frequent species (cover, frequency): Atalaya hemiglaucha (2, 12%), Eucalyptus pruinosa subsp. pruinosa (4, 12%), Acacia sericophylla (2, 8%), Acacia adsurgens (2, 4%), Capparis umbonata (4%), Corymbia grandifolia subsp. grandifolia (4%), Ehretia saligna (2, 4%), Grevillea striata (1, 4%), Hakea indet. (3, 4%), Melaleuca viridiflora (4%), Tinospora indet. (1, 4%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 2.0m, range 1-4m, 25 sites****Crown cover avg. = 8.7%, range 0.0-41.0%, 25 sites**

Dominant species (relative cover, frequency): *Acacia chisholmii* (69, 32%), *Carissa lanceolata* (40, 60%), *Eucalyptus pruinosa* subsp. *pruinosa* (21, 24%), *Gossypium australe* (19, 32%), *Flueggea virosa* subsp. *melanthesoides* (17, 24%)

Frequent species (cover, frequency): *Carissa lanceolata* (2, 60%), *Atalaya hemiglaucha* (1, 40%), *Acacia chisholmii* (14, 32%), *Gossypium australe* (1, 32%), *Eucalyptus pruinosa* subsp. *pruinosa* (1, 24%), *Flueggea virosa* subsp. *melanthesoides* (1, 24%), *Acacia elachantha* (5, 20%), *Eremophila longifolia* (20%), *Acacia holosericea* (1, 16%), *Acacia tenuissima* (4, 12%), *Capparis lasiantha* (12%), *Vachellia farnesiana\** (12%), *Ventilago viminalis* (12%), *Acacia adsurgens* (3, 8%), *Acacia indet.* (4, 8%), *Denhamia cunninghamii* (8%), *Senna artemisioides* subsp. *oligophylla* (8%), *Senna planitiicola* (8%), *Acacia cowleana* (1, 4%), *Acacia excelsa* (4%), *Acacia orthocarpa* (4%), *Corymbia grandifolia* subsp. *grandifolia* (4%), *Corymbia terminalis* (4%), *Cynanchum brevipedicellatum* (4%), *Dodonaea physocarpa* (4%), *Dolichandrone heterophylla* (4%), *Ehretia saligna* (4%), *Eremophila bignoniiflora* (4%), *Eremophila latrobei* (2, 4%), *Flueggea indet.* (4%), *Grevillea indet.* (4%), *Grevillea striata* (4%), *Hakea lorea* subsp. *lorea* (4%), *Lysiana spathulata* subsp. *spathulata* (4%), *Lysiphyllo cunninghamii* (4%), *Marsdenia viridiflora* subsp. *tropica* (4%), *Melaleuca citrolens* (4%), *Melaleuca viridiflora* (4%), *Owenia acidula* (4%), *Psydrax indet.* (4%), *Santalum lanceolatum* (4%), *Senna artemisioides* subsp. *helmsii* (4%), *Senna glutinosa* subsp. *pruinosa* (1, 4%), *Wrightia saligna* (4%)

**Stratum: Shrub 2****Height avg. = 1.1m, range 0.2-1.5m, 11 sites****Crown cover avg. = 6.2%, range 0.0-25.0%, 11 sites**

Frequent species (cover, frequency): *Atalaya hemiglaucha* (1, 20%), *Carissa lanceolata* (6, 20%), *Flueggea virosa* subsp. *melanthesoides* (1, 20%), *Gossypium australe* (1, 12%), *Dodonaea physocarpa* (1, 8%), *Ehretia saligna* (8%), *Senna artemisioides* subsp. *oligophylla* (2, 8%), *Senna planitiicola* (8%), *Vachellia farnesiana\** (3, 8%), *Acacia chisholmii* (2, 4%), *Acacia elachantha* (1, 4%), *Acacia holosericea* (4%), *Acacia sericophylla* (4%), *Alternanthera indet.* (4%), *Capparis lasiantha* (4%), *Cleome viscosa* (4%), *Clerodendrum indet.* (4%), *Crotalaria medicaginea* (4%), *Cucumis argenteus* (4%), *Cynanchum brevipedicellatum* (4%), *Eremophila indet.* (4%), *Eremophila latrobei* (10, 4%), *Eremophila longifolia* (2, 4%), *Euphorbia mitchelliana* (4%), *Ptilotus obovatus* (4%), *Salsola australis* (4%), *Santalum lanceolatum* (1, 4%), *Senna artemisioides* subsp. *helmsii* (2, 4%), *Senna notabilis* (4%), *Solanum quadriloculatum* (4%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.6m, range 0.3-1m, 24 sites****PFC avg. = 60.5%, range 12-96%, 25 sites**

Dominant species (relative cover, frequency): *Eulalia aurea* (23, 64%), *Triodia pungens* (23, 48%), *Aristida inaequiglumis* (20, 28%), *Aristida ingrata* (15, 24%), *Sehima nervosum* (11, 32%)

Frequent species (cover, frequency): GRAMINOIDs: *Chrysopogon fallax* (4, 76%), *Eulalia aurea* (17, 64%), *Sporobolus australasicus* (3, 52%), *Aristida pruinosa* (7, 48%), *Triodia pungens* (11, 48%), *Bothriochloa erartiana* (5, 44%), *Themeda triandra* (4, 44%), *Enneapogon polypylus* (3, 40%), *Aristida latifolia* (2, 36%), *Sehima nervosum* (7, 32%), *Aristida contorta* (4, 28%), *Aristida inaequiglumis* (14, 28%), *Panicum decompositum* (1, 28%), *Aristida ingrata* (7, 24%), *Digitaria brownii* (1, 24%), *Bulbostylis barbata* (20%), *Dichanthium fecundum* (10, 20%), *Schizachyrium fragile* (2, 20%), *Cenchrus pennisetiformis*\* (16%), *Dactyloctenium radulans* (16%), *Dichanthium sericeum* subsp. *polystachyum* (14, 16%), *Enneapogon lindleyanus* (1, 16%), *Mnesithea formosa* (16%), *Aristida holathera* var. *holathera* (1, 12%), *Enneapogon robustissimus* (1, 12%), *Eriachne armitii* (3, 12%), *Eriachne mucronata* (7, 12%), *Fimbristylis dichotoma* (12%), *Heteropogon contortus* (13, 12%), *Panicum laevinode* (1, 12%), *Sporobolus caroli* (1, 12%), *Themeda avenacea* (4, 12%), *Triodia longiceps* (22, 12%), *Bothriochloa* indet. (3, 8%), *Cymbopogon bombycinus* (2, 8%), *Enneapogon nigricans* (5, 8%), *Enneapogon purpurascens* (7, 8%), *Enteropogon ramosus* (3, 8%), *Eragrostis* indet. (8%), *Eragrostis tenellula* (8, 8%), *Fimbristylis bisumbellata* (1, 8%), *Iseilema macratherum* (8%), *Paraneurachne muelleri* (2, 8%), *Tragus australianus* (1, 8%), *Tripogon loliiformis* (8%)

FORBS: *Melhania oblongifolia* (48%), *Cleome viscosa* (44%), *Sida fibulifera* (44%), *Indigofera linifolia* (36%), *Evolvulus alsinoides* var. *vilosocalyx* (28%), *Indigofera linnaei* (24%), *Portulaca oleracea*\* (1, 24%), *Alternanthera* indet. (20%), *Boerhavia* indet. (20%), *Bonamia media* (20%), *Crotalaria medicaginea* (20%), *Heliotropium tenuifolium* (20%), *Pterocaulon serrulatum* (20%), *Salsola australis* (1, 20%), *Solanum quadriloculatum* (20%), *Abutilon* indet. (16%), *Abutilon otocarpum* (16%), *Achyranthes aspera* (16%), *Capparis lasiantha* (16%), *Evolvulus alsinoides* (1, 16%), *Gomphrena* indet. (16%), *Neptunia dimorphantha* (1, 16%), *Polycarphaea corymbosa* (16%), *Pterocaulon* indet. (16%), *Ptilotus fusiformis* (16%), *Streptoglossa decurrens* (16%), *Abutilon hannii* (12%), *Atalaya hemiglaucia* (12%), *Corchorus sidoides* (12%), *Euphorbia* indet. (12%), *Hybanthus* indet. (12%), *Malvastrum americanum* (2, 12%), *Rhynchosia minima* (1, 12%), *Senna planititica* (12%), *Waltheria indica* (12%), *Abutilon arenarium* (8%), *Abutilon leucopetalum* (8%), *Alternanthera* sp. (Mt Isa R.L.Speccht+ 49) (8%), *Blumea tenella* (1, 8%), *Boerhavia paludosa* (1, 8%), *Convolvulaceae* indet. (8%), *Euphorbia coghlani* (8%), *Evolvulus alsinoides* var. *decumbens* (8%), *Gomphrena lanata* (2, 8%), *Goodenia lunata* (8%), *Gossypium australe* (8%), *Heliotropium cunninghamii* (8%), *Indigofera colutea* (8%), *Indigofera hirsuta* (1, 8%), *Maireana villosa* (8%), *Neptunia gracilis* (8%), *Phyllanthus* indet. (8%), *Phyllanthus maderaspatensis* (8%), *Polymeria ambigua* (3, 8%), *Portulaca* indet. (8%), *Ptilotus schwartzii* (8%), *Rhynchosia minima* var. *australis* (10, 8%), *Rostellularia adscendens* (8%), *Senna notabilis* (8%), *Sida cleisocalyx* (1, 8%), *Sida trichopoda* (8%), *Solanum succosum* (8%), *Vigna* indet. (8%)

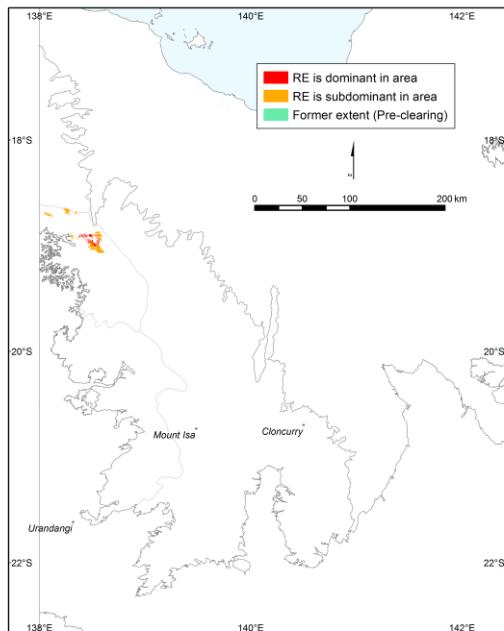
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.14a: Corymbia aparrerinja open woodland on sandy red earths overlying limestones



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 6,416 6,416 100.00%

**Species recorded:** Total: 43; woody: 15; ground: 28; Avg. spp./site: 43.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 1.3 m<sup>2</sup>/ha, range: 1.3 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Open-woodland: 100%, 1 site(s)

**Representative sites:** 40539.

#### Stratum: Tree 1

**Height avg. = 11.0m, 1 site**

**Crown cover avg. = 14.0%, 1 site**

*Dominant species (relative cover, frequency): Corymbia aparrerinja (100, 100%)*

*Frequent species (cover, frequency): Corymbia aparrerinja (14, 100%)*

#### Stratum: Tree 2

**Height avg. = 5.0m, 1 site**

**Crown cover avg. = 8.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus pruinosa subsp. pruinosa (100, 100%)*

*Frequent species (cover, frequency): Eucalyptus pruinosa subsp. pruinosa (8, 100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 2.2m, 1 site****Crown cover avg. = 5.0%, 1 site**

*Dominant species (relative cover, frequency): Eremophila longifolia (91, 100%), Ventilago viminalis (2, 100%), Psydrax attenuata (2, 100%), Denhamia cunninghamii (2, 100%), Atalaya hemiglaucha (2, 100%)*

*Frequent species (cover, frequency): Acacia chisholmii (100%), Atalaya hemiglaucha (100%), Denhamia cunninghamii (100%), Eremophila longifolia (5, 100%), Psydrax attenuata (100%), Ventilago viminalis (100%)*

**Stratum: Shrub 2****Height avg. = 1.0m, 1 site****Crown cover avg. = 1.0%, 1 site**

*Dominant species (relative cover, frequency): Ventilago viminalis (8, 100%), Senna artemisioides subsp. helmsii (8, 100%), Lysiphyllo cunnighamii (8, 100%), Grewia retusifolia (8, 100%), Flueggea virosa subsp. melanthesoides (8, 100%)*

*Frequent species (cover, frequency): Acacia chisholmii (100%), Atalaya hemiglaucha (100%), Capparis indet. (100%), Capparis lasiantha (100%), Carissa lanceolata (100%), Denhamia cunninghamii (100%), Eremophila longifolia (100%), Flueggea virosa subsp. melanthesoides (100%), Grewia retusifolia (100%), Lysiphyllo cunnighamii (100%), Senna artemisioides subsp. helmsii (100%), Ventilago viminalis (100%)*

**Stratum: Ground****Height avg. = 0.6m, 1 site****PFC avg. = 71.0%, 1 site**

*Dominant species (relative cover, frequency): Dichanthium secundum (42, 100%), Eulalia aurea (35, 100%), Chrysopogon fallax (14, 100%), Aristida pruinosa (3, 100%), Enneapogon polypillus (3, 100%)*

*Frequent species (cover, frequency): GRAMINOID: Aristida pruinosa (2, 100%), Bulbostylis barbata (100%), Chrysopogon fallax (10, 100%), Dichanthium secundum (30, 100%), Enneapogon polypillus (2, 100%), Eragrostis cumingii (100%), Eulalia aurea (25, 100%), Panicum laevinode (100%), Sehima nervosum (100%), Sporobolus australasicus (100%), Themeda triandra (100%)*

*FORBS: Abutilon hannii (100%), Alternanthera indet. (100%), Buchnera asperata (100%), Cleome viscosa (100%), Euphorbia biconvexa (100%), Evolvulus alsinoides var. villosicalyx (100%), Gomphrena lanata (100%), Gossypium australe (100%), Indigofera colutea (100%), Ipomoea plebeia (100%), Jasminum molle (100%), Marsdenia viridiflora subsp. tropica (100%), Melhania oblongifolia (100%), Polycarphaea breviflora (100%), Pterocaulon serrulatum (100%), Rhynchosia minima (100%), Solanum succosum (100%)*

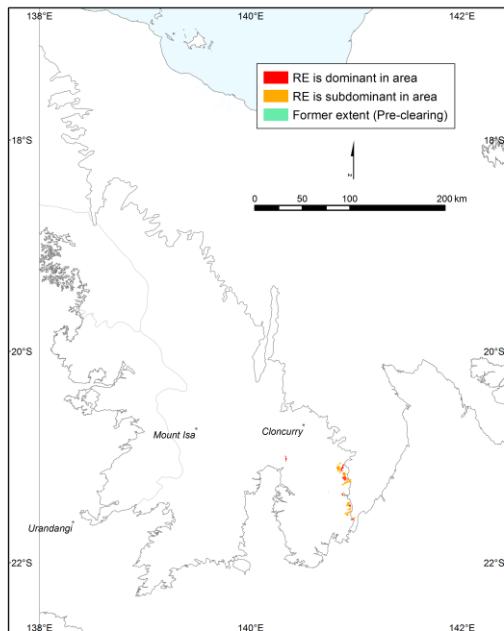
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.14b: *Corymbia aparrerinja* open woodland on sandy soil



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 4,871 4,629 95.03%

Species recorded: Total: 59; woody: 15; ground: 45; Avg. spp./site: 33.0; std dev.: 0.0, 2 site(s)

Basal area: Avg./site: 1.0 m<sup>2</sup>/ha, range: 0.8 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Open-woodland: 50%; low open-woodland: 50%, 2 site(s)

Representative sites: 19500, 55454.

#### Stratum: Tree 1

Height avg. = 10.8m, range 8-13.5m, 2 sites

Crown cover avg. = 14.0%, range 12.0-16.0%, 2 sites

Dominant species (relative cover, frequency): *Corymbia aparrerinja* (79, 100%), *Acacia excelsa* subsp. *angusta* (30, 50%), *Atalaya hemiglauc*a (6, 50%), *Grevillea striata* (1, 50%), *Eucalyptus leucophylla* (1, 50%)

Frequent species (cover, frequency): *Corymbia aparrerinja* (11, 100%), *Corymbia terminalis* (100%), *Acacia cambagei* (50%), *Acacia excelsa* subsp. *angusta* (5, 50%), *Atalaya hemiglauc*a (1, 50%), *Eucalyptus leucophylla* (50%), *Eucalyptus pruinosa* subsp. *pruinosa* (50%), *Grevillea striata* (50%), *Terminalia aridicola* (50%)

#### Stratum: Tree 2

Height avg. = 3.5m, range 3-4m, 2 sites

Crown cover avg. = 4.0%, range 2.0-6.0%, 2 sites

Dominant species (relative cover, frequency): *Corymbia aparrerinja* (100, 50%), *Grevillea striata* (95, 50%), *Atalaya hemiglauc*a (5, 50%)

Frequent species (cover, frequency): *Atalaya hemiglauc*a (50%), *Corymbia aparrerinja* (6, 50%), *Grevillea striata* (2, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.5m, range 1.5-1.5m, 2 sites****Crown cover avg. = 2.0%, range 0.0-4.0%, 2 sites**

Dominant species (relative cover, frequency): *Carissa lanceolata* (49, 50%), *Cynanchum brevipedicellatum* (25, 50%), *Corchorus sericeus* subsp. *sericeus* (25, 50%), *Acacia hemignosta* (25, 50%), *Acacia colei* var. *colei* (25, 50%)

Frequent species (cover, frequency): *Acacia chisholmii* (50%), *Acacia colei* var. *colei* (50%), *Acacia hemignosta* (50%), *Atalaya hemiglaucia* (1, 50%), *Carissa lanceolata* (2, 50%), *Corchorus sericeus* subsp. *sericeus* (50%), *Cynanchum brevipedicellatum* (50%), *Grevillea striata* (1, 50%)

**Stratum: Ground****Height avg. = 0.5m, range 0.5-0.5m, 2 sites****PFC avg. = 71.0%, range 60-82%, 2 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (29, 100%), *Eriachne obtusa* (18, 50%), *Crotalaria novae-hollandiae* subsp. *novae-hollandiae* (16, 50%), *Polymeria lanata* (13, 50%), *Aristida holathera* var. *holathera* (12, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida holathera* var. *holathera* (8, 100%), *Aristida inaequiglumis* (3, 100%), *Chrysopogon fallax* (2, 100%), *Triodia pungens* (20, 100%), *Aristida contorta* (2, 50%), *Aristida pruinosa* (4, 50%), *Bothriochloa erartiana* (10, 50%), *Bulbostylis barbata* (50%), *Cenchrus pennisetiformis*\* (50%), *Cenchrus setigerus*\* (50%), *Digitaria brownii* (5, 50%), *Enneapogon polyphyllus* (50%), *Eragrostis basedowii* (50%), *Eragrostis speciosa* (50%), *Eriachne obtusa* (15, 50%), *Eulalia aurea* (10, 50%), *Fimbristylis caespitosa* (50%), *Fimbristylis dichotoma* (50%), *Heteropogon contortus* (2, 50%), *Oxychloris scariosa* (10, 50%), *Panicum decompositum* (50%), *Paraneurachne muelleri* (50%), *Tripogon loliiformis* (50%), *Urochloa indet.* (50%)

FORBS: *Evolvulus alsinoides* var. *decumbens* (100%), *Sida platycalyx* (1, 100%), *Alternanthera indet.* (50%), *Bonamia media* (50%), *Boronia indet.* (50%), *Crotalaria novae-hollandiae* subsp. *novae-hollandiae* (10, 50%), *Goodenia triodiophila* (50%), *Heliotropium tenuifolium* (50%), *Hibiscus sturtii* var. *sturtii* (50%), *Hybanthus aurantiacus* (50%), *Indigofera colutea* (50%), *Indigofera linifolia* (50%), *Phyllanthus indet.* (50%), *Polymeria lanata* (8, 50%), *Sida rohlenae* subsp. *rohlenae* (50%), *Solanum quadriloculatum* (50%), *Spermacoce indet.* (50%), *Streptoglossa decurrens* (50%), *Vigna lanceolata* var. *lanceolata* (50%), *Waltheria indica* (50%), *Zornia prostrata* var. *prostrata* (50%)

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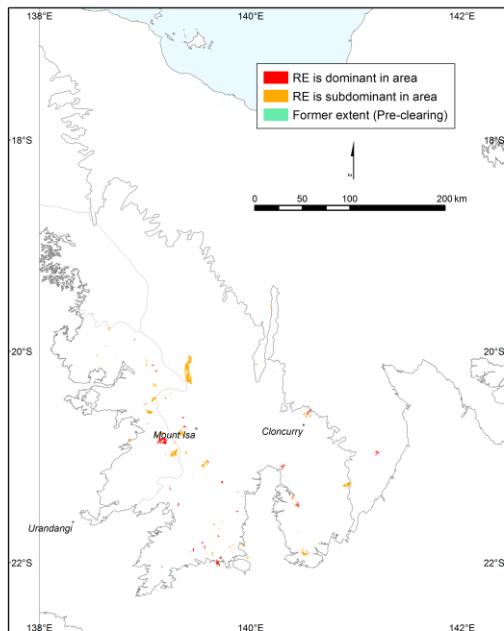
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.5.15: Aristida contorta annual grasslands on hard setting red soils



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 13,841 13,836 99.96%

Species recorded: Total: 65; woody: 11; ground: 54; Avg. spp./site: 27.0; std dev.: 5.1, 3 site(s)

Basal area: 0

Structural formation: Tussock grassland: 33%; sparse-tussock grassland: 33%; open-tussock grassland: 33%, 3 site(s)

Representative sites: 23447, 40868, 42075.

#### Stratum: Emergent

Height avg. = 4.9m, range 3.2-6.5m, 2 sites

Crown cover avg. = 1.0%, range 0.0-2.0%, 2 sites

Dominant species (relative cover, frequency): *Atalaya hemiglaucha* (29, 33%), *Grevillea striata* (23, 67%), *Corymbia terminalis* (23, 67%), *Ventilago viminalis* (17, 33%), *Corymbia aparrerinja* (17, 33%)

Frequent species (cover, frequency): *Carissa lanceolata* (67%), *Corymbia terminalis* (1, 67%), *Grevillea striata* (1, 67%), *Acacia aneura* (33%), *Acacia holosericea* (33%), *Acacia indet.* (33%), *Atalaya hemiglaucha* (1, 33%), *Capparis lasiantha* (33%), *Corymbia aparrerinja* (33%), *Eremophila latrobei* subsp. *glabra* (33%), *Ventilago viminalis* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.3m, range 0.25-0.4m, 3 sites****PFC avg. = 35.7%, range 21-57%, 3 sites**

*Dominant species (relative cover, frequency): Aristida contorta (50, 100%), Aristida inaequiglumis (21, 67%), Eulalia aurea (17, 33%), Aristida helicophylla (10, 33%), Sclerolaena lanicuspis (8, 33%)*

*Frequent species (cover, frequency): GRAMINOIDs: Aristida contorta (18, 100%), Aristida inaequiglumis (10, 67%), Bothriochloa erartiana (2, 67%), Enneapogon polyphyllus (2, 67%), Perotis rara (67%), Sporobolus australasicus (67%), Aristida helicophylla (2, 33%), Aristida ingrata (33%), Aristida latifolia (1, 33%), Astrebla pectinata (33%), Brachyachne convergens (33%), Bulbostylis barbata (33%), Cenchrus ciliaris\* (1, 33%), Chrysopogon fallax (1, 33%), Digitaria indet. (33%), Eragrostis eriopoda (1, 33%), Eriachne armitii (2, 33%), Eriachne mucronata (33%), Eulalia aurea (5, 33%), Triodia pungens (1, 33%)*

*FORBS: Abutilon otocarpum (67%), Cleome viscosa (67%), Senna planitiicola (67%), Sida cleisocalyx (2, 67%), Sida platycalyx (1, 67%), Solanum quadriloculatum (67%), Amaranthus cochleitepalus (33%), Boerhavia indet. (33%), Crotalaria medicaginea (33%), Crotalaria novae-hollandiae (33%), Cucumis argenteus (33%), Euphorbia papillata var. papillata (33%), Evolvulus alsinoides var. villosicalyx (33%), Gossypium australe (33%), Heliotropium styotrichum (33%), Hibiscus meraukensis (33%), Ipomoea muelleri (33%), Maireana georgei (33%), Maireana triptera (33%), Melhania oblongifolia (33%), Phyllanthus maderaspatensis (33%), Polycarphaea breviflora (33%), Portulaca indet. (33%), Pterocaulon indet. (33%), Pterocaulon serrulatum (33%), Pterocaulon serrulatum var. velutinum (33%), Ptilotus macrocephalus (33%), Ptilotus schwartzii (33%), Salsola australis (33%), Sarcotoechia indet. (33%), Sclerolaena lanicuspis (5, 33%), Senna notabilis (33%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (33%), Waltheria indica (33%)*

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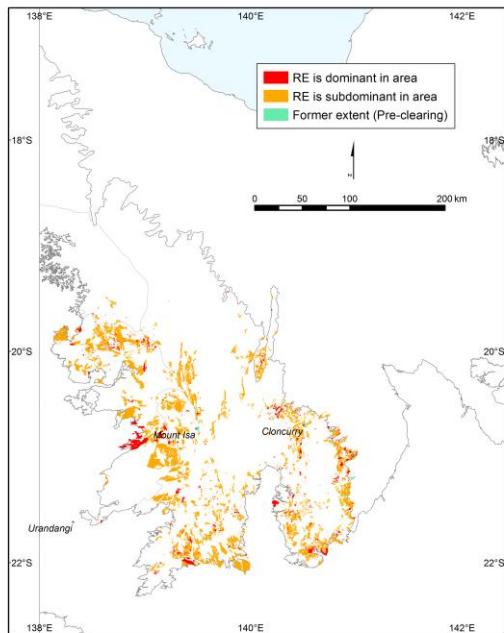
**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.5.16: *Acacia cambagei* low woodlands on red earths



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 179,425 176,441 98.34%

**Species recorded:** Total: 102; woody: 17; ground: 85; Avg. spp./site: 19.3; std dev.: 8.9, 8 site(s)

**Basal area:** Avg./site: 3.1 m<sup>2</sup>/ha, range: 0.5 - 7 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 8 site(s)

**Structural formation:** Low open-woodland: 50%; low woodland: 38%; woodland: 13%, 8 site(s)

**Representative sites:** 19331, 19351, 19529, 42121, 42132, 45332, 55615, 59594.

#### Stratum: Tree 1

**Height avg. = 6.4m, range 4.5-10m, 8 sites**

**Crown cover avg. = 24.3%, range 5.0-54.3%, 8 sites**

*Dominant species (relative cover, frequency):* *Acacia cambagei* (94, 100%), *Atalaya hemiglaucha* (1, 25%)

*Frequent species (cover, frequency):* *Acacia cambagei* (24, 100%), *Atalaya hemiglaucha* (25%), *Acacia excelsa* subsp. *angusta* (13%), *Corymbia aparrerinja* (13%), *Grevillea striata* (6, 13%)

#### Stratum: Tree 2

**Height avg. = 4.1m, range 3.5-5m, 4 sites**

**Crown cover avg. = 2.5%, range 1.0-4.0%, 4 sites**

*Dominant species (relative cover, frequency):* *Atalaya hemiglaucha* (40, 25%), *Grevillea striata* (35, 25%)

*Frequent species (cover, frequency):* *Atalaya hemiglaucha* (2, 25%), *Grevillea striata* (1, 25%), *Acacia aneura* (1, 13%), *Acacia cambagei* (3, 13%), *Acacia excelsa* subsp. *angusta* (13%), *Corymbia aparrerinja* (1, 13%)

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.8m, range 1-3.5m, 7 sites****Crown cover avg. = 6.3%, range 0.0-19.0%, 7 sites**

*Dominant species (relative cover, frequency): Grevillea striata (73, 25%), Acacia cambagei (57, 25%), Eremophila mitchellii (41, 50%), Carissa lanceolata (3, 25%)*

*Frequent species (cover, frequency): Eremophila mitchellii (4, 50%), Acacia cambagei (2, 25%), Carissa lanceolata (25%), Grevillea striata (1, 25%), Cynanchum brevipedicellatum (13%), Eremophila latrobei (1, 13%), Lysiana subfalcata (13%), Senna artemisioides (3, 13%), Senna artemisioides subsp. helmsii (10, 13%), Senna artemisioides subsp. oligophylla (4, 13%), Senna glutinosa subsp. pruinosa (1, 13%), Senna indet. (1, 13%)*

**Stratum: Shrub 2****Height avg. = 0.7m, 1 site****Crown cover avg. = 1.0%, 1 site**

*Frequent species (cover, frequency): Eremophila mitchellii (1, 13%), Eremophila obovata subsp. glabriuscula (13%), Senna artemisioides subsp. helmsii (13%)*

**Stratum: Ground****Height avg. = 0.5m, range 0.15-1.2m, 8 sites****PFC avg. = 24.5%, range 3-47%, 8 sites**

*Dominant species (relative cover, frequency): Triodia longiceps (71, 25%), Tripogon loliiformis (47, 25%), Sporobolus actinocladus (24, 50%), Aristida contorta (22, 63%), Fimbristylis dichotoma (14, 25%)*

*Frequent species (cover, frequency): GRAMINOIDs: Aristida contorta (8, 63%), Enneapogon polyphyllus (1, 50%), Sporobolus actinocladus (2, 50%), Sporobolus australasicus (38%), Triodia pungens (3, 38%), Aristida pruinosa (25%), Chrysopogon fallax (3, 25%), Eulalia aurea (1, 25%), Fimbristylis dichotoma (7, 25%), Sporobolus caroli (25%), Triodia longiceps (22, 25%), Tripogon loliiformis (7, 25%), Aristida inaequiglumis (13%), Aristida latifolia (13%), Astrebla pectinata (13%), Cenchrus pennisetiformis\* (13%), Chloris virgata\* (1, 13%), Dactyloctenium radulans (13%), Digitaria brownii (13%), Diplachne fusca var. muelleri (13%), Enneapogon indet. (13%), Enneapogon nigricans (13%), Enteropogon acicularis (1, 13%), Enteropogon ramosus (13%), Eragrostis desertorum (13%), Eragrostis indet. (13%), Eragrostis pilosa\* (13%), Eriachne mucronata (2, 13%), Fimbristylis bisumbellata (13%), Mnesithea formosa (1, 13%), Oxychloris scariosa (13%), Paraneurachne muelleri (13%), Paspalidium distans (10, 13%), Paspalidium rarum (13%), Schizachyrium indet. (13%), Triodia molesta (5, 13%)*

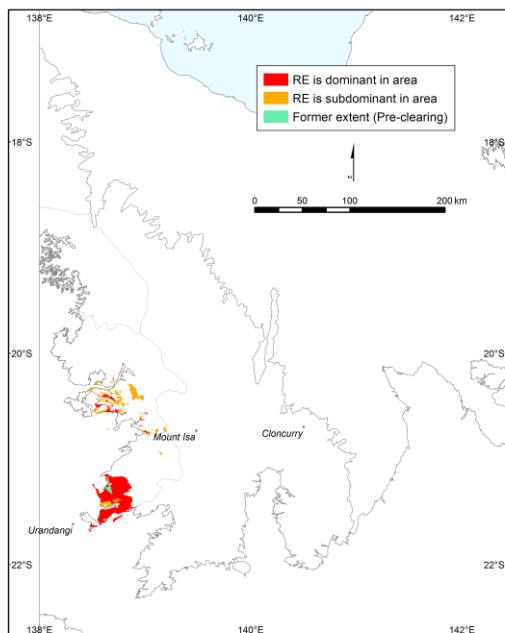
*FORBS: Portulaca oleracea\* (63%), Portulaca pilosa\* (38%), Sclerolaena eriacantha (38%), Cleome viscosa (25%), Hibiscus brachysiphonius (25%), Salsola australis (25%), Sida indet. (25%), Sida platycalyx (1, 25%), Solanum quadriloculatum (25%), Trianthema triquetra (25%), Acacia chisholmii (13%), Acacia ligulata (13%), Achyranthes aspera (1, 13%), Alternanthera angustifolia (13%), Amaranthus indet. (13%), Atriplex humifusa (13%), Boerhavia paludosa (13%), Bonamia media (13%), Calandrinia indet. (13%), Calandrinia ptychosperma (13%), Calandrinia sperrularina (13%), Chenopodium desertorum subsp. anidiophyllum (13%), Crotalaria brevis (13%), Enchytraea tomentosa var. tomentosa (2, 13%), Euphorbia drummondii (13%), Euphorbia petala (13%), Evolvulus alsinoides (13%), Evolvulus alsinoides var. villosum (13%), Gomphrena lanata (13%), Hibiscus sturtii var. sturtii (13%), Maireana georgei (10, 13%), Maireana integra (13%), Maireana triptera (15, 13%), Maireana villosa (13%), Neptunia dimorphantha (13%), Polycarpaea corymbosa (13%), Ptilotus fusiformis (13%), Ptilotus nobilis subsp. nobilis (13%), Sclerolaena cornishiana (13%), Sclerolaena glabra (13%), Sclerolaena lanicuspis (1, 13%), Sida cleisocalyx (13%), Sida everistiana (13%), Sida fibulifera (13%), Sida goniocarpa (13%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (13%), Solanum esuriale (13%), Tribulus terrestris (13%), Waltheria indica (13%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.17: *Corymbia terminalis* low open woodland on sandy red earth plains



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 91,835 88,443 96.31%

Species recorded: Total: 93; woody: 34; ground: 61; Avg. spp./site: 26.6; std dev.: 2.9, 5 site(s)

Basal area: Avg./site: 2.2 m<sup>2</sup>/ha, range: 1.0 - 5 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 4 site(s)

Structural formation: Low open-woodland: 80%; woodland: 20%, 5 site(s)

Representative sites: 19417, 40865, 42161, 45309, 57435.

#### Stratum: Tree 1

Height avg. = 7.8m, range 5-11m, 5 sites

Crown cover avg. = 17.8%, range 9.0-36.0%, 5 sites

Dominant species (relative cover, frequency): *Corymbia terminalis* (71, 80%), *Corymbia aparrerinja* (43, 60%), *Atalaya hemiglaucha* (9, 40%), *Grevillea striata* (7, 60%)

Frequent species (cover, frequency): *Corymbia terminalis* (10, 80%), *Corymbia aparrerinja* (14, 60%), *Grevillea striata* (1, 60%), *Atalaya hemiglaucha* (1, 40%), *Acacia aneura* (20%), *Acacia sericophylla* (20%), *Eucalyptus microtheca* (3, 20%), *Eucalyptus pruinosa* subsp. *pruinosa* (2, 20%), *Hakea chordophylla* (20%)

#### Stratum: Tree 2

Height avg. = 3.5m, 1 site

Crown cover avg. = 8.0%, 1 site

Frequent species (cover, frequency): *Acacia sericophylla* (2, 20%), *Atalaya hemiglaucha* (1, 20%), *Hakea lorea* subsp. *lorea* (5, 20%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 2.3m, range 0.9-3.5m, 5 sites****Crown cover avg. = 15.0%, range 1.0-27.0%, 5 sites**

*Dominant species (relative cover, frequency): Acacia tenuissima (39, 40%), Eremophila longifolia (7, 40%), Acacia adsurgens (4, 40%), Atalaya hemiglaucha (4, 40%)*

*Frequent species (cover, frequency): Acacia adsurgens (40%), Acacia tenuissima (1, 40%), Atalaya hemiglaucha (40%), Eremophila longifolia (40%), Acacia ancistrocarpa (20%), Acacia chisholmii (20, 20%), Acacia cowleana (20%), Acacia holosericea (20%), Acacia orthocarpa (2, 20%), Acacia stipuligera (5, 20%), Capparis lasiantha (20%), Carissa lanceolata (3, 20%), Ehretia saligna (1, 20%), Eremophila latrobei (20%), Eremophila latrobei subsp. latrobei (1, 20%), Gossypium australe (20%), Senna artemisioides subsp. helmsii (20%), Senna artemisioides subsp. zygophylla (20%), Tinospora smilacina (20%)*

**Stratum: Shrub 2****Height avg. = 1.2m, range 0.5-2.2m, 3 sites****Crown cover avg. = 5.3%, range 0.0-11.8%, 3 sites**

*Frequent species (cover, frequency): Acacia elachantha (20%), Acacia indet. (20%), Acacia melleodora (2, 20%), Acacia stipuligera (2, 20%), Eremophila obovata subsp. obovata (6, 20%), Gossypium australe (20%), Senna artemisioides (20%), Senna artemisioides subsp. oligophylla (3, 20%)*

**Stratum: Ground****Height avg. = 0.5m, range 0.4-1m, 5 sites****PFC avg. = 49.2%, range 20-86%, 5 sites**

*Dominant species (relative cover, frequency): Triodia pungens (65, 100%), Aristida hygrometrica (13, 40%), Paraneurachne muelleri (8, 40%), Eragrostis eriopoda (5, 40%), Aristida inaequiglumis (5, 60%)*

*Frequent species (cover, frequency): GRAMINOIDs: Triodia pungens (32, 100%), Aristida holathera var. holathera (1, 60%), Aristida inaequiglumis (2, 60%), Aristida hygrometrica (11, 40%), Dactyloctenium radulans (40%), Eragrostis eriopoda (2, 40%), Paraneurachne muelleri (3, 40%), Aristida contorta (20%), Aristida indet. (4, 20%), Aristida pruinosa (3, 20%), Bothriochloa decipiens var. cloncurrensis (2, 20%), Bulbostylis barbata (1, 20%), Cyperus conicus (20%), Digitaria brownii (2, 20%), Digitaria ctenantha (20%), Enneapogon nigricans (20%), Enneapogon polypyillus (20%), Enneapogon robustissimus (20%), Eragrostis indet. (20%), Eriachne mucronata (20%), Fimbristylis dichotoma (20%), Fimbristylis neilsonii (20%), Paspalidium rarum (20%)*

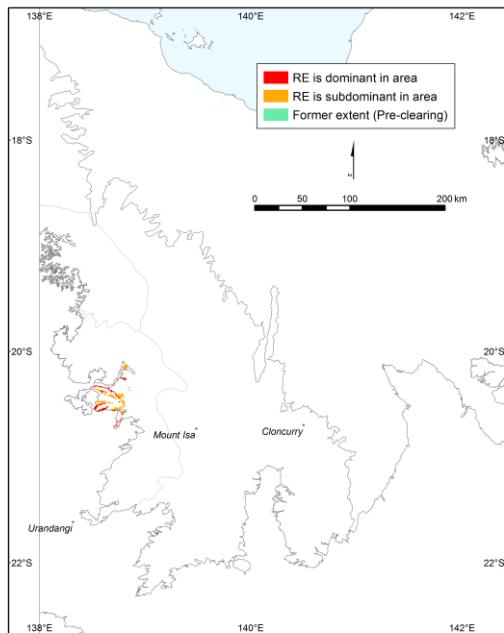
*FORBS: Indigofera linifolia (60%), Abutilon hannii (40%), Achyranthes aspera (1, 40%), Cleome viscosa (40%), Euphorbia tannensis (40%), Evolvulus alsinoides (40%), Gomphrena lanata (40%), Gossypium australe (1, 40%), Melhania oblongifolia (40%), Portulaca indet. (40%), Sida platycalyx (1, 40%), Alternanthera indet. (20%), Boerhavia indet. (20%), Bonamia indet. (20%), Cajanus marmoratus (15, 20%), Calandrinia indet. (20%), Calotis xanthosioidea (20%), Crotalaria indet. (3, 20%), Crotalaria medicaginea (20%), Crotalaria novae-hollandiae (3, 20%), Euphorbia indet. (1, 20%), Euphorbia tannensis subsp. eremophila (20%), Evolvulus alsinoides var. decumbens (20%), Evolvulus alsinoides var. villosicalyx (20%), Heliotropium indet. (20%), Indigofera linnaei (20%), Malvastrum americanum (20%), Portulaca pilosa\* (20%), Ptilotus indet. (20%), Sauvagesia indet. (20%), Sclerolaena indet. (20%), Sida rohlenae subsp. rohlenae (20%), Solanum indet. (20%), Spermacoce indet. (20%), Streptoglossa odora (20%), Stylidium floodii (20%), Trianthema pilosa (20%), Zornia albiflora (20%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.18: *Corymbia capricornia* low open woodland on red sands around low metamorphic hills



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 9,520 9,520 100.00%

Species recorded: Total: 34; woody: 9; ground: 25; Avg. spp./site: 34.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative sites: 42175.

#### Stratum: Tree 1

Height avg. = 8.0m, 1 site

Crown cover avg. = 5.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia capricornia* (96, 100%), *Melaleuca viridiiflora* (2, 100%), *Corymbia aparrerinja* (2, 100%)

Frequent species (cover, frequency): *Corymbia aparrerinja* (100%), *Corymbia capricornia* (5, 100%), *Melaleuca viridiiflora* (100%)

#### Stratum: Shrub 1

Height avg. = 4.0m, 1 site

Crown cover avg. = 8.0%, 1 site

Dominant species (relative cover, frequency): *Grevillea wickhamii* subsp. *aprifica* (25, 100%), *Acacia sericophylla* (25, 100%), *Acacia retivenea* subsp. *retivenea* (25, 100%), *Acacia monticola* (25, 100%)

Frequent species (cover, frequency): *Acacia monticola* (2, 100%), *Acacia retivenea* subsp. *retivenea* (2, 100%), *Acacia sericophylla* (2, 100%), *Grevillea wickhamii* subsp. *aprifica* (2, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 2****Height avg. = 1.0m, 1 site****Crown cover avg. = 11.0%, 1 site***Dominant species (relative cover, frequency): Acacia indet. (99, 100%), Gossypium australe (1, 100%)**Frequent species (cover, frequency): Acacia indet. (10, 100%), Gossypium australe (100%)*

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**Stratum: Ground****Height avg. = 1.0m, 1 site****PFC avg. = 78.0%, 1 site***Dominant species (relative cover, frequency): Triodia pungens (87, 100%), Polymeria ambigua (4, 100%), Ipomoea muelleri (1, 100%), Cyperus conicus var. conicus (1, 100%), Cyperus indet. (1, 100%)**Frequent species (cover, frequency): GRAMINOIDs: Aristida inaequiglumis (100%), Cyperus conicus var. conicus (1, 100%), Cyperus indet. (1, 100%), Paraneurachne muelleri (100%), Triodia pungens (70, 100%)**FORBS: Abutilon otocarpum (100%), Bonamia media (100%), Crotalaria novae-hollandiae (100%), Euphorbia australis var. subtomentosa (100%), Euphorbia tannensis (100%), Evolvulus alsinoides var. villosicalyx (100%), Galactia sp. (Andoom A.Morton 1149) (100%), Goodenia indet. (100%), Heliotropium cunninghamii (1, 100%), Ipomoea muelleri (1, 100%), Polycarpaea corymbosa (100%), Polymeria ambigua (3, 100%), Pterocaulon serrulatum (100%), Ptilotus fusiformis (100%), Senna notabilis (100%), Solanum quadriloculatum (100%), Solanum succosum (1, 100%), Stylidium floodii (100%), Tephrosia virens (1, 100%), Waltheria indica (100%)*

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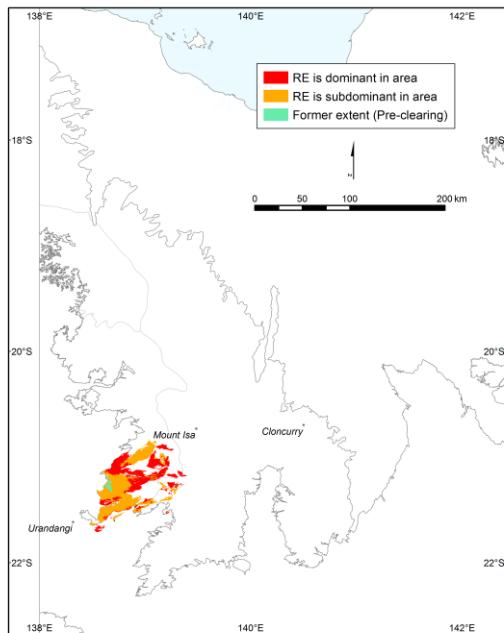
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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### 1.5.19: Acacia georginae and A. aneura low woodland on sandy red plains



**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 134,288 131,880 98.21%

**Species recorded:** Total: 77; woody: 27; ground: 52; Avg. spp./site: 19.8; std dev.: 5.2, 6 site(s)

**Basal area:** Avg./site: 5.0 m<sup>2</sup>/ha, range: 5.0 - 5 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 2 site(s)

**Structural formation:** Low open-woodland: 50%; low woodland: 33%; low open-forest: 17%, 6 site(s)

**Representative sites:** 45306, 45310, 45311, 45313, 45314, 57397.

#### Stratum: Tree 1

**Height avg. = 5.8m, range 3.5-8m, 6 sites**

**Crown cover avg. = 37.2%, range 9.8-58.0%, 6 sites**

*Dominant species (relative cover, frequency): Acacia georginae (71, 83%), Acacia aneura (53, 50%)*

*Frequent species (cover, frequency): Acacia georginae (23, 83%), Acacia aneura (20, 50%), Acacia aneura var. *tenuis* (38, 17%), Atalaya hemiglaucha (17%), Ventilago viminalis (17%)*

#### Stratum: Shrub 1

**Height avg. = 1.8m, range 1-2.5m, 6 sites**

**Crown cover avg. = 7.3%, range 2.9-27.0%, 6 sites**

*Dominant species (relative cover, frequency): Acacia georginae (51, 33%), Senna artemisioides subsp. oligophylla (32, 67%), Eremophila latrobei subsp. latrobei (20, 50%), Eremophila longifolia (10, 33%), Carissa lanceolata (8, 50%)*

*Frequent species (cover, frequency): Senna artemisioides subsp. oligophylla (4, 67%), Carissa lanceolata (50%), Eremophila latrobei subsp. latrobei (1, 50%), Acacia georginae (3, 33%), Eremophila longifolia (33%), Acacia adsurgens (17%), Acacia ancistrocarpa (17%), Acacia aneura (17%), Acacia cowleana (17%), Acacia sericophylla (17%), Apophyllum anomalum (17%), Clerodendrum floribundum (17%), Cynanchum viminale subsp. australe (17%), Eremophila gilesii subsp. gilesii (17%), Eremophila latrobei subsp. glabra (1, 17%), Eremophila maculata (17%), Eremophila maculata subsp. maculata (17%), Eremophila obovata subsp. obovata (17%), Grevillea striata (17%), Santalum lanceolatum (17%), Senna artemisioides subsp. helmsii (17%), Senna artemisioides subsp. sturtii (17%), Senna planitiicola (17%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 2****Height avg. = 0.8m, 1 site****Crown cover avg. = 16.0%, 1 site**

*Frequent species (cover, frequency): Acacia georginae (2, 17%), Eremophila indet. (3, 17%), Senna artemisioides subsp. oligophylla (11, 17%)*

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.5m, 6 sites****PFC avg. = 13.8%, range 5-20%, 6 sites**

*Dominant species (relative cover, frequency): Aristida holathera var. holathera (31, 67%), Triodia pungens (28, 33%), Thyridolepis mitchelliana (27, 33%), Sclerolaena cornishiana (16, 50%), Eragrostis eriopoda (16, 33%)*

*Frequent species (cover, frequency): GRAMINOIDs: Aristida holathera var. holathera (4, 67%), Cenchrus pennisetiformis\* (50%), Enneapogon polypyllus (2, 50%), Aristida contorta (2, 33%), Aristida pruinosa (1, 33%), Eragrostis eriopoda (3, 33%), Thyridolepis mitchelliana (3, 33%), Triodia pungens (5, 33%), Alloteropsis semialata (3, 17%), Aristida inaequiglumis (17%), Aristida jerichoensis var. jerichoensis (10, 17%), Brachyachne convergens (17%), Digitaria brownii (17%), Enteropogon acicularis (5, 17%), Eragrostis indet. (17%), Eriachne mucronata (2, 17%), Eulalia aurea (17%), Fimbristylis bisumbellata (17%), Perotis rara (3, 17%), Sporobolus australasicus (17%)*

*FORBS: Sida platycalyx (1, 67%), Evolvulus alsinoides (50%), Sclerolaena cornishiana (3, 50%), Solanum quadriloculatum (50%), Abutilon otocarpum (33%), Alternanthera nodiflora (33%), Cleome viscosa (33%), Ipomoea muelleri (33%), Melhania oblongifolia (33%), Sida cardiophylla - S. macropoda (33%), Abutilon hannii (17%), Abutilon leucopetalum (17%), Boerhavia indet. (17%), Bonamia media (17%), Capparis lasiantha (17%), Enchylaena tomentosa var. tomentosa (17%), Eremophila latrobei subsp. glabra (17%), Euphorbia tannensis subsp. eremophila (17%), Heliotropium consimile (17%), Heliotropium tenuifolium (17%), Hibiscus sturtii var. sturtii (17%), Pluchea ferdinandi-muelleri (17%), Polycarpea spirostylis subsp. glabra (17%), Pterocaulon sphacelatum (17%), Ptilotus indet. (17%), Salsola australis (17%), Senna artemisioides subsp. oligophylla (17%), Sida rohlenae (17%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (17%), Sphaeranthus indicus (17%), Streptoglossa odora (17%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

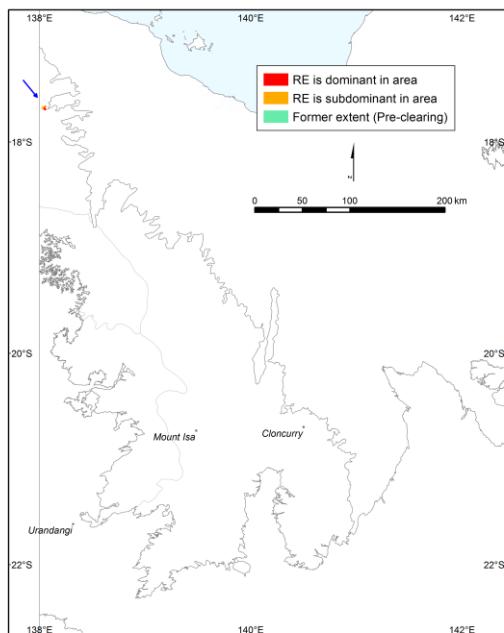
Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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### 1.5.1x2: Eucalyptus whitei low open woodland on sand plains



**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 771      771      100.00%

**Species recorded:** Total: 23; woody: 8; ground: 17; Avg. spp./site: 23.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 0.8 m<sup>2</sup>/ha, range: 0.8 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low open-woodland: 100%, 1 site(s)

**Representative sites:** 48034.

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#### Stratum: Tree 1

**Height avg. = 6.0m, 1 site**

**Crown cover avg. = 15.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus whitei (99, 100%), Eucalyptus leucophloia subsp. euroa (1, 100%), Acacia hammondii (1, 100%)*

*Frequent species (cover, frequency): Acacia hammondii (100%), Eucalyptus leucophloia subsp. euroa (100%), Eucalyptus whitei (15, 100%)*

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#### Stratum: Tree 2

**Height avg. = 3.0m, 1 site**

**Crown cover avg. = 2.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus whitei (83, 100%), Acacia hammondii (17, 100%)*

*Frequent species (cover, frequency): Acacia hammondii (100%), Eucalyptus whitei (1, 100%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 1.5m, 1 site****Crown cover avg. = 4.0%, 1 site**

Dominant species (relative cover, frequency): *Petalostigma quadriloculare* (63, 100%), *Eucalyptus whitei* (13, 100%), *Acacia hammondii* (13, 100%), *Terminalia canescens* (6, 100%), *Indigofera pratensis* (6, 100%)

Frequent species (cover, frequency): *Acacia hammondii* (100%), *Eucalyptus whitei* (100%), *Indigofera pratensis* (100%), *Petalostigma quadriloculare* (1, 100%), *Terminalia canescens* (100%)

**Stratum: Shrub 2****Height avg. = 0.8m, 1 site****Crown cover avg. = 5.0%, 1 site**

Dominant species (relative cover, frequency): *Petalostigma quadriloculare* (74, 100%), *Corchorus sericeus subsp. sericeus* (7, 100%), *Terminalia canescens* (4, 100%), *Indigofera pratensis* (4, 100%), *Eucalyptus whitei* (4, 100%)

Frequent species (cover, frequency): *Acacia hammondii* (100%), *Acacia wickhamii* (100%), *Corchorus sericeus subsp. sericeus* (100%), *Eucalyptus whitei* (100%), *Indigofera pratensis* (100%), *Petalostigma quadriloculare* (2, 100%), *Terminalia canescens* (100%)

**Stratum: Ground****Height avg. = 0.2m, 1 site****PFC avg. = 48.0%, 1 site**

Dominant species (relative cover, frequency): *Triodia bitextura* (81, 100%), *Schizachyrium fragile* (10, 100%), *Acacia wickhamii* (6, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Chrysopogon fallax* (100%), *Digitaria papposa* (100%), *Eriachne ciliata* (100%), *Eriachne melicacea* (100%), *Fimbristylis dichotoma* (100%), *Mnesithea formosa* (100%), *Panicum effusum* (100%), *Schizachyrium fragile* (5, 100%), *Triodia bitextura* (40, 100%)

FORBS: *Acacia wickhamii* (3, 100%), *Buchnera linearis* (100%), *Evolvulus alsinoides* (100%), *Grevillea dryandri subsp. dryandri* (100%), *Indigofera linifolia* (100%), *Oldenlandia mitrasacmoides* (100%), *Spermacoce latimarginata* (100%)

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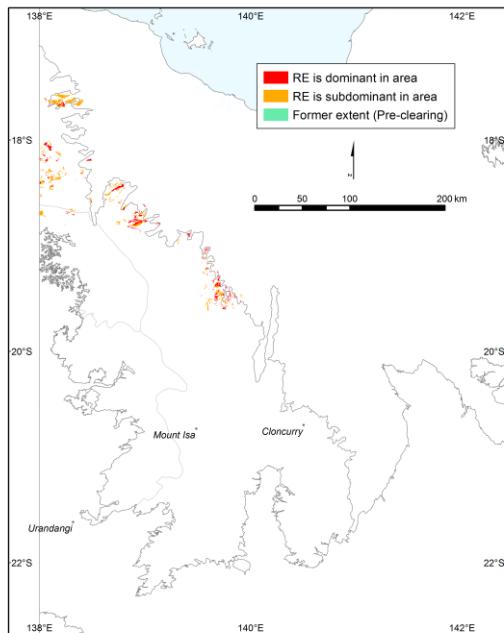
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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### 1.5.2a: Mixed eucalypt low-open woodland dominated by *Eucalyptus leucophloia* on sandy plains



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 31,627 31,573 99.83%

Species recorded: Total: 38; woody: 9; ground: 29; Avg. spp./site: 38.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 0.5 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative sites: 40508.

#### Stratum: Tree 1

Height avg. = 7.0m, 1 site

Crown cover avg. = 15.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (53, 100%), *Corymbia terminalis* (26, 100%), *Corymbia grandifolia* subsp. *grandifolia* (20, 100%), *Eucalyptus pruinosa* subsp. *pruinosa* (1, 100%)

Frequent species (cover, frequency): *Corymbia grandifolia* subsp. *grandifolia* (3, 100%), *Corymbia terminalis* (4, 100%), *Eucalyptus leucophloia* subsp. *euroa* (8, 100%), *Eucalyptus pruinosa* subsp. *pruinosa* (100%)

#### Stratum: Shrub 1

Height avg. = 2.0m, 1 site

Crown cover avg. = 3.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (65, 100%), *Terminalia canescens* (32, 100%), *Lysiphyllyum cunninghamii* (3, 100%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (2, 100%), *Lysiphyllyum cunninghamii* (100%), *Terminalia canescens* (1, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 2****Height avg. = 0.9m, 1 site****Crown cover avg. = 1.0%, 1 site**

*Dominant species (relative cover, frequency): Terminalia canescens (25, 100%), Petalostigma quadriloculare (25, 100%), Denhamia cunninghamii (25, 100%), Carissa lanceolata (25, 100%)*

*Frequent species (cover, frequency): Carissa lanceolata (100%), Denhamia cunninghamii (100%), Petalostigma quadriloculare (100%), Terminalia canescens (100%)*

**Stratum: Ground****Height avg. = 0.6m, 1 site****PFC avg. = 78.0%, 1 site**

*Dominant species (relative cover, frequency): Eriachne obtusa (19, 100%), Chrysopogon fallax (19, 100%), Eulalia aurea (13, 100%), Aristida hygrometrica (13, 100%), Eragrostis cumingii (13, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Aristida hygrometrica (10, 100%), Aristida inaequiglumis (5, 100%), Chrysopogon fallax (15, 100%), Cyperus conicus var. conicus (100%), Eragrostis cumingii (10, 100%), Eragrostis indet. (100%), Eriachne obtusa (15, 100%), Eulalia aurea (10, 100%), Fimbristylis dichotoma (3, 100%), Heteropogon contortus (2, 100%), Mnesithea formosa (100%), Perotis rara (100%), Schizachyrium fragile (1, 100%), Sporobolus australasicus (100%), Triodia pungens (5, 100%)*

*FORBS: Buchnera linearis (100%), Cleome viscosa (100%), Gomphrena canescens subsp. canescens (100%), Indigofera colutea (100%), Indigofera hirsuta (100%), Indigofera linifolia (100%), Kohautia australiensis (100%), Marsdenia viridiflora subsp. tropica (100%), Melhania oblongifolia (100%), Polycarpea corymbosa (100%), Polymeria ambigua (100%), Ptilotus fusiformis (100%), Spermacoce auriculata (100%), Stackhousia intermedia (100%)*

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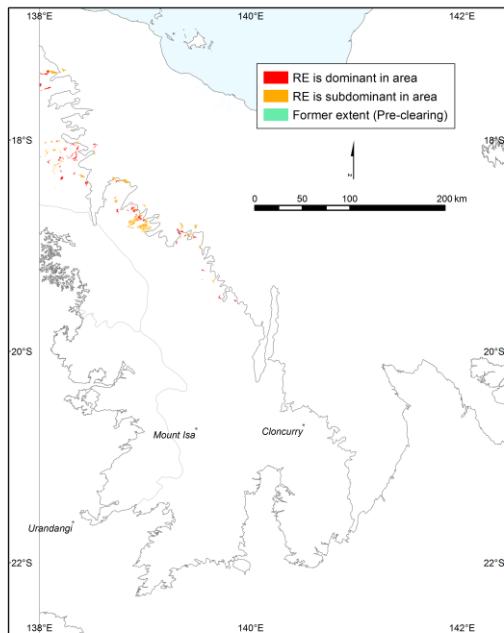
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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### 1.5.2b: Mixed eucalypt and melaleuca woodland on gravelly plains



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 16,803 16,802 99.99%

Species recorded: Total: 64; woody: 17; ground: 49; Avg. spp./site: 37.0; std dev.: 1.0, 2 site(s)

Basal area: Avg./site: 1.6 m<sup>2</sup>/ha, range: 1.0 - 2 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative sites: 40509, 59794.

#### Stratum: Tree 1

Height avg. = 9.0m, range 9-9m, 2 sites

Crown cover avg. = 10.0%, range 7.0-13.0%, 2 sites

Dominant species (relative cover, frequency): *Corymbia capricornia* (57, 100%), *Corymbia grandifolia* subsp. *grandifolia* (40, 100%), *Eucalyptus leucophloia* subsp. *euroa* (1, 50%), *Corymbia polycarpa* (1, 100%), *Corymbia ferruginea* subsp. *ferruginea* (1, 50%)

Frequent species (cover, frequency): *Corymbia capricornia* (6, 100%), *Corymbia grandifolia* subsp. *grandifolia* (5, 100%), *Corymbia polycarpa* (100%), *Corymbia ferruginea* subsp. *ferruginea* (50%), *Eucalyptus leucophloia* subsp. *euroa* (50%)

#### Stratum: Tree 2

Height avg. = 4.3m, range 3.5-5m, 2 sites

Crown cover avg. = 6.5%, range 2.0-11.0%, 2 sites

Dominant species (relative cover, frequency): *Melaleuca viridiflora* (66, 100%), *Terminalia canescens* (50, 50%), *Eucalyptus pruinosa* subsp. *pruinosa* (18, 50%)

Frequent species (cover, frequency): *Melaleuca viridiflora* (5, 100%), *Eucalyptus pruinosa* subsp. *pruinosa* (2, 50%), *Terminalia canescens* (1, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 1****Height avg. = 1.5m, range 1.2-1.7m, 2 sites****Crown cover avg. = 26.0%, range 1.0-51.0%, 2 sites**

Dominant species (relative cover, frequency): *Grevillea pteridifolia* (73, 50%), *Eucalyptus pruinosa* subsp. *pruinosa* (33, 50%), *Corymbia capricornia* (33, 50%), *Melaleuca viridiflora* (18, 100%), *Petalostigma banksii* (15, 50%)

Frequent species (cover, frequency): *Melaleuca viridiflora* (1, 100%), *Corymbia capricornia* (50%), *Eucalyptus pruinosa* subsp. *pruinosa* (50%), *Grevillea pteridifolia* (30, 50%), *Petalostigma banksii* (6, 50%), *Petalostigma quadriloculare* (50%), *Terminalia canescens* (1, 50%), *Wrightia saligna* (3, 50%)

**Stratum: Shrub 2****Height avg. = 0.9m, 1 site****Crown cover avg. = 24.0%, 1 site**

Dominant species (relative cover, frequency): *Melaleuca viridiflora* (36, 50%), *Petalostigma quadriloculare* (29, 50%), *Acacia calligera* (18, 50%), *Acacia hammondii* (15, 50%)

Frequent species (cover, frequency): *Acacia calligera* (5, 50%), *Acacia galloides* (50%), *Acacia hammondii* (4, 50%), *Corymbia capricornia* (50%), *Dodonaea barklyana* (50%), *Grevillea dryandri* subsp. *dryandri* (50%), *Melaleuca viridiflora* (10, 50%), *Petalostigma quadriloculare* (8, 50%)

**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.5m, 2 sites****PFC avg. = 65.0%, range 46-84%, 2 sites**

Dominant species (relative cover, frequency): *Triodia bitextura* (42, 50%), *Yakirra majuscula* (30, 50%), *Schizachyrium fragile* (24, 50%), *Eriachne ciliata* (23, 50%), *Eragrostis cumingii* (12, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida hygrometrica* (4, 100%), *Bulbostylis barbata* (100%), *Chrysopogon fallax* (3, 100%), *Eriachne obtusa* (6, 100%), *Aristida holathera* var. *holathera* (50%), *Aristida pruinosa* (50%), *Eragrostis cumingii* (10, 50%), *Eragrostis* indet. (50%), *Eriachne armitii* (2, 50%), *Eriachne ciliata* (11, 50%), *Eriachne* sp. (Dugald River B.K.Simon + 3007) (50%), *Fimbristylis dichotoma* (1, 50%), *Perotis rara* (2, 50%), *Rhynchospora pterochaeta* (50%), *Schizachyrium fragile* (20, 50%), *Schizachyrium* indet. (3, 50%), *Setaria surgens* (50%), *Triodia bitextura* (20, 50%), *Triodia pungens* (3, 50%), *Yakirra australiensis* var. *australiensis* (2, 50%), *Yakirra* indet. (5, 50%), *Yakirra majuscula* (25, 50%)  
FORBS: *Ptilotus fusiformis* (1, 100%), *Spermacoce auriculata* (100%), *Buchnera linearis* (50%), *Buchnera urticifolia* (50%), *Cleome viscosa* (50%), *Corchorus sericeus* (50%), *Crotalaria medicaginea* (50%), *Euphorbia* indet. (50%), *Evolvulus alsinoides* (50%), *Gomphrena* indet. (50%), *Heliotropium ballii* (50%), *Heliotropium* indet. (50%), *Hibiscus verdcourtii* (50%), *Indigofera colutea* (50%), *Indigofera hirsuta* (50%), *Indigofera linifolia* (50%), *Oldenlandia* indet. (50%), *Phyllanthus* indet. (50%), *Polycarpea corymbosa* (50%), *Polygala* indet. (50%), *Portulaca* indet. (50%), *Sida fibulifera* (50%), *Tephrosia* indet. (50%), *Terminalia canescens* (50%), *Waltheria indica* (50%), *Zornia* indet. (50%), *Zornia prostrata* (50%)

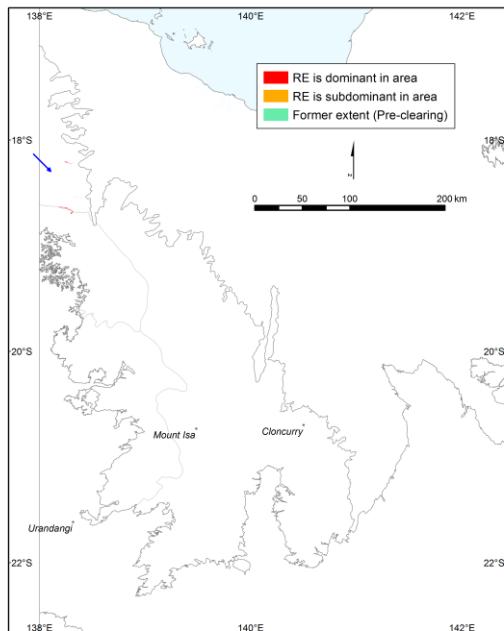
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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### 1.5.2c: Mixed low-woodland with *Corymbia polycarpa* on sandy plains



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 763 758 99.32%

**Species recorded:** Total: 45; woody: 16; ground: 29; Avg. spp./site: 45.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 4.8 m<sup>2</sup>/ha, range: 4.8 - 5 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low woodland: 100%, 1 site(s)

**Representative sites:** 40536.

#### Stratum: Tree 1

**Height avg. = 9.0m, 1 site**

**Crown cover avg. = 31.0%, 1 site**

*Dominant species (relative cover, frequency): Ventilago viminalis (32, 100%), Corymbia polycarpa (32, 100%), Atalaya hemiglaucha (22, 100%), Lysiphylloum cunninghamii (13, 100%)*

*Frequent species (cover, frequency): Atalaya hemiglaucha (7, 100%), Corymbia ferruginea subsp. ferruginea (100%), Corymbia polycarpa (10, 100%), Eucalyptus pruinosa subsp. pruinosa (100%), Lysiphylloum cunninghamii (4, 100%), Ventilago viminalis (10, 100%)*

#### Stratum: Tree 2

**Height avg. = 5.5m, 1 site**

**Crown cover avg. = 1.0%, 1 site**

*Dominant species (relative cover, frequency): Psydrax attenuata (33, 100%), Lysiphylloum cunninghamii (33, 100%), Atalaya hemiglaucha (33, 100%)*

*Frequent species (cover, frequency): Atalaya hemiglaucha (100%), Lysiphylloum cunninghamii (100%), Psydrax attenuata (100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 1****Height avg. = 3.0m, 1 site****Crown cover avg. = 16.0%, 1 site**

Dominant species (relative cover, frequency): *Petalostigma pubescens* (97, 100%), *Dodonaea stenophylla* (1, 100%), *Denhamia cunninghamii* (1, 100%), *Acacia torulosa* (1, 100%), *Acacia holosericea* (1, 100%)

Frequent species (cover, frequency): *Acacia holosericea* (100%), *Acacia torulosa* (100%), *Denhamia cunninghamii* (100%), *Dodonaea stenophylla* (100%), *Petalostigma pubescens* (15, 100%)

**Stratum: Shrub 2****Height avg. = 1.0m, 1 site****Crown cover avg. = 6.0%, 1 site**

Dominant species (relative cover, frequency): *Petalostigma pubescens* (53, 100%), *Flueggea virosa* subsp. *melanthesoides* (35, 100%), *Lysiphyllo cunnighamii* (2, 100%), *Gossypium australe* (2, 100%), *Dodonaea stenophylla* (2, 100%)

Frequent species (cover, frequency): *Acacia hammondii* (100%), *Acacia holosericea* (100%), *Atalaya hemiglaauca* (100%), *Dodonaea hispidula* var. *hispida* (100%), *Dodonaea stenophylla* (100%), *Flueggea virosa* subsp. *melanthesoides* (2, 100%), *Gossypium australe* (100%), *Lysiphyllo cunnighamii* (100%), *Petalostigma pubescens* (3, 100%)

**Stratum: Ground****Height avg. = 0.5m, 1 site****PFC avg. = 92.0%, 1 site**

Dominant species (relative cover, frequency): *Triodia pungens* (18, 100%), *Aristida inaequiglumis* (18, 100%), *Aristida ingrata* (18, 100%), *Enneapogon robustissimus* (18, 100%), *Chrysopogon fallax* (12, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida holathera* var. *holathera* (2, 100%), *Aristida hygrometrica* (100%), *Aristida inaequiglumis* (15, 100%), *Aristida ingrata* (15, 100%), *Bulbostylis barbata* (100%), *Chrysopogon fallax* (10, 100%), *Cymbopogon bombycinus* (100%), *Enneapogon robustissimus* (15, 100%), *Eriachne obtusa* (100%), *Schizachyrium indet.* (100%), *Setaria apiculata* (3, 100%), *Triodia pungens* (15, 100%), *Yakirra australiensis* var. *australiensis* (100%), *Yakirra majuscula* (3, 100%)

FORBS: *Alternanthera denticulata* var. *micrantha* (100%), *Capparis lasiantha* (100%), *Cleome viscosa* (100%), *Crotalaria medicaginea* (100%), *Galactia tenuiflora* (100%), *Gomphrena indet.* (100%), *Heliotropium tenuifolium* (100%), *Indigofera colutea* (100%), *Indigofera linifolia* (100%), *Jasminum molle* (2, 100%), *Marsdenia viridiflora* subsp. *tropica* (100%), *Melhania oblongifolia* (100%), *Phyllanthus fuernrohrii* (100%), *Rhynchosia minima* (100%), *Terminalia platyphylla* (100%)

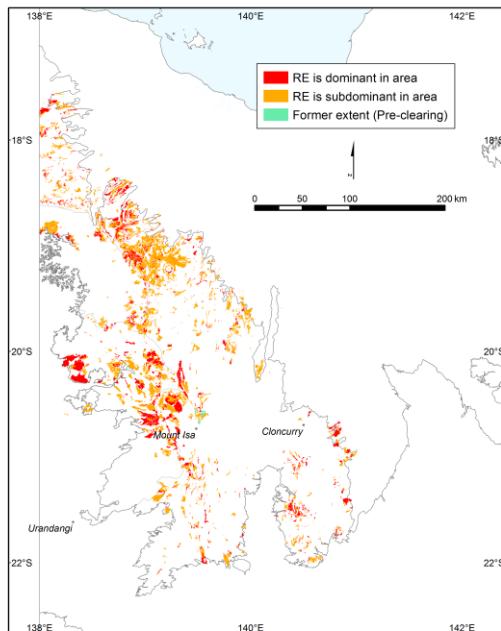
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.3: *Eucalyptus leucophloia* low open woodland to woodland on sandy and gravelly red soils



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 290,317 288,719 99.45%

Species recorded: Total: 240; woody: 72; ground: 188; Avg. spp./site: 27.7; std dev.: 11.3, 19 site(s)

Basal area: Avg./site: 2.2 m<sup>2</sup>/ha, range: 0.3 - 5 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 17 site(s)

Structural formation: Low open-woodland: 68%; low woodland: 16%; open-woodland: 11%; woodland: 5%, 19 site(s)

Representative sites: 19353, 19403, 19461, 19550, 23385, 23403, 24406, 40525, 40860, 42120, 42140, 43035, 43135, 43155, 45285, 45384, 48455, 55934, 60714.

#### Stratum: Tree 1

Height avg. = 7.2m, range 4-11m, 19 sites

Crown cover avg. = 16.0%, range 3.0-48.0%, 19 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (91, 100%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (15, 100%), *Corymbia terminalis* (2, 11%), *Eucalyptus normantonensis* (6, 11%), *Atalaya hemiglaauca* (5%), *Capparis lasiantha* (5%), *Corymbia capricornia* (4, 5%), *Eucalyptus leucophylla* (5%), *Eucalyptus pruinosa* subsp. *pruinosa* (5%), *Hakea chordophylla* (5%), *Melaleuca citrolens* (5%), *Petalostigma pubescens* (5%)

#### Stratum: Tree 2

Height avg. = 4.3m, range 4-4.5m, 2 sites

Crown cover avg. = 5.0%, range 1.0-9.0%, 2 sites

Frequent species (cover, frequency): *Acacia aneura* (1, 5%), *Eucalyptus leucophloia* subsp. *euroa* (9, 5%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 1****Height avg. = 1.6m, range 0.5-3m, 17 sites****Crown cover avg. = 4.7%, range 0.0-20.0%, 18 sites**

Dominant species (relative cover, frequency): *Acacia chisholmii* (66, 32%), *Acacia holosericea* (24, 26%), *Atalaya hemiglaucha* (19, 21%), *Denhamia cunninghamii* (17, 21%), *Acacia tenuissima* (15, 26%)

Frequent species (cover, frequency): *Mnesithea formosa* (5%), *Acacia chisholmii* (3, 32%), *Acacia holosericea* (1, 26%), *Acacia tenuissima* (26%), *Carissa lanceolata* (1, 26%), *Eucalyptus leucophloia* subsp. *euroa* (26%), *Terminalia canescens* (1, 26%), *Atalaya hemiglaucha* (21%), *Denhamia cunninghamii* (21%), *Gossypium australe* (21%), *Acacia gonoclada* (1, 16%), *Dodonaea physocarpa* (4, 16%), *Waltheria indica* (16%), *Acacia cowleana* (11%), *Acacia* indet. (3, 11%), *Eremophila longifolia* (1, 11%), *Flueggea virosa* subsp. *melanthesoides* (11%), *Grevillea dryandri* subsp. *dryandri* (11%), *Melaleuca citrolens* (1, 11%), *Santalum lanceolatum* (11%), *Tephrosia* indet. (11%), *Acacia adsurgens* (2, 5%), *Acacia citriodora* (5%), *Acacia elachantha* (5%), *Acacia galiooides* (5%), *Acacia hemsleyi* (5%), *Acacia hilliana* (20, 5%), *Acacia laccata* (5%), *Acacia leptocarpa* (5%), *Acacia ligulata* (5%), *Acacia melleodora* (5%), *Acacia monticola* (5%), *Alphitonia excelsa* (5%), *Apophyllum anomalum* (5%), *Breynia oblongifolia* (5%), *Cleome viscosa* (5%), *Corchorus sericeus* (2, 5%), *Corymbia capricornia* (5%), *Cucumis argenteus* (5%), *Ehretia saligna* (5%), *Eremophila latrobei* (5%), *Eremophila latrobei* subsp. *latrobei* (5%), *Eucalyptus normantonensis* (5%), *Grevillea parallela* (5%), *Grewia retusifolia* (5%), *Livistona rigida* (5%), *Petalostigma banksii* (5%), *Petalostigma pubescens* (5%), *Petalostigma quadriloculare* (5%), *Pterocaulon* indet. (5%), *Senna artemisioides* subsp. *oligophylla* (1, 5%), *Senna glutinosa* subsp. *luerssenii* (5%), *Senna glutinosa* subsp. *pruinosa* (5%), *Sida* indet. (5%), *Solanum echinatum* (5%), *Tephrosia delestangii* (5%), *Tephrosia* sp. (Barkly Downs S.L.Everist 3384) (5%), *Tephrosia virens* (5%), *Vachellia farnesiana*\* (5%)

**Stratum: Shrub 2****Height avg. = 1.0m, range 0.5-1.5m, 4 sites****Crown cover avg. = 2.8%, range 1.0-5.0%, 5 sites**

Frequent species (cover, frequency): *Carissa lanceolata* (16%), *Dodonaea physocarpa* (2, 11%), *Flueggea virosa* subsp. *melanthesoides* (11%), *Senna artemisioides* subsp. *oligophylla* (4, 11%), *Waltheria indica* (11%), *Acacia gonoclada* (5%), *Acacia hammondii* (5%), *Acacia hyaloneura* (5%), *Corchorus sericeus* (1, 5%), *Corymbia capricornia* (5%), *Denhamia cunninghamii* (5%), *Erythroxylum ellipticum* (5%), *Eucalyptus leucophloia* subsp. *euroa* (5%), *Gossypium australe* (5%), *Grevillea dryandri* subsp. *dryandri* (5%), *Grewia retusifolia* (5%), *Jasminum simplicifolium* subsp. *australiense* (5%), *Petalostigma quadriloculare* (5%), *Senna notabilis* (5%), *Seringia nephrosperma* (5%), *Sida* indet. (5%), *Sida spinosa*\* (5%)

**Stratum: Ground****Height avg. = 0.5m, range 0.2-1m, 18 sites****PFC avg. = 49.0%, range 12-85%, 19 sites**

Dominant species (relative cover, frequency): *Triodia longiceps* (81, 21%), *Triodia pungens* (64, 68%), *Schizachyrium fragile* (18, 26%), *Eulalia aurea* (13, 53%), *Aristida contorta* (12, 21%)

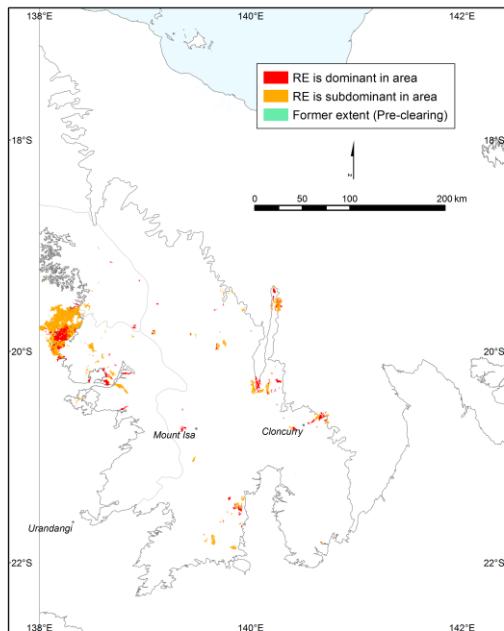
Frequent species (cover, frequency): GRAMINOIDs: *Triodia pungens* (34, 68%), *Eulalia aurea* (5, 53%), *Digitaria brownii* (1, 47%), *Bulbostylis barbata* (37%), *Mnesithea formosa* (1, 37%), *Enneapogon polypyllus* (2, 32%), *Sporobolus australasicus* (1, 32%), *Aristida pruinosa* (3, 26%), *Chrysopogon fallax* (1, 26%), *Eriachne mucronata* (2, 26%), *Fimbristylis dichotoma* (26%), *Heteropogon contortus* (1, 26%), *Paspalidium rarum* (26%), *Schizachyrium fragile* (7, 26%), *Aristida contorta* (1, 21%), *Aristida holathera* var. *holathera* (1, 21%), *Eragrostis cumingii* (21%), *Eriachne* sp. (Dugald River B.K.Simon+ 3007) (21%), *Triodia longiceps* (49, 21%), *Aristida hygrometrica* (1, 16%), *Aristida inaequiglumis* (5, 16%), *Bothriochloa erwartiana* (2, 16%), *Cymbopogon bombycinus* (16%), *Enneapogon lindleyanus* (16%), *Eriachne* indet. (16%), *Aristida ingrata* (4, 11%), *Cenchrus pennisetiformis*\* (11%), *Eragrostis exigua* (11%), *Eriachne ciliata* (11%), *Paraneurachne muelleri* (1, 11%), *Perotis rara* (11%), *Setaria surgens* (11%), *Themeda triandra* (11%), *Triodia bitextura* (19, 11%)

FORBS: *Evolvulus alsinoides* (37%), *Cleome viscosa* (32%), *Bonamia media* (21%), *Maireana villosa* (21%), *Polycarphaea corymbosa* (21%), *Portulaca oleracea*\* (21%), *Sida* sp. (Musselbrook M.B.Thomas+ MRS437) (1, 21%), *Waltheria indica* (21%), *Zornia muriculata* (21%), *Crotalaria montana* (16%), *Hibiscus sturtii* (16%), *Indigofera colutea* (16%), *Indigofera linifolia* (1, 16%), *Phyllanthus virgatus* (16%), *Sida fibulifera* (1, 16%), *Tephrosia leptoclada* (16%), *Acacia galiooides* (11%), *Alternanthera* indet. (11%), *Alternanthera nana* (11%), *Blumea saxatilis* (11%), *Boerhavia* indet. (11%), *Cassytha* indet. (3, 11%), *Crotalaria medicaginea* (11%), *Desmodium filiforme* (11%), *Euphorbia tannensis* subsp. *eremophila* (11%), *Evolvulus alsinoides* var. *decumbens* (11%), *Flueggea virosa* subsp. *melanthesoides* (11%), *Gossypium australe* (11%), *Melhania oblongifolia* (11%), *Murdannia graminea* (11%), *Phyllanthus carpentariae* (11%), *Polymeria* indet. (11%), *Portulaca pilosa*\* (11%), *Sclerolaena* indet. (11%), *Sida* indet. (11%), *Sida spinosa*\* (11%), *Solanum quadriloculatum* (11%), *Tephrosia* indet. (11%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**1.5.4a: Corymbia terminalis low open woodland on older alluvial and residual soils**

D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 60,310 60,016 99.51%

**Species recorded:** Total: 113; woody: 28; ground: 91; Avg. spp./site: 25.3; std dev.: 8.3, 8 site(s)

**Basal area:** Avg./site: 1.1 m<sup>2</sup>/ha, range: 0.5 - 2 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 5 site(s)

**Structural formation:** Low open-woodland: 100%, 8 site(s)

**Representative sites:** 19506, 23394, 40844, 40871, 40890, 40893, 45353, 45458.

**Stratum: Tree 1**

**Height avg. = 7.7m, range 6-9m, 8 sites**

**Crown cover avg. = 9.4%, range 4.0-15.0%, 8 sites**

*Dominant species (relative cover, frequency):* *Corymbia terminalis* (84, 100%), *Corymbia aparrerinja* (25, 25%), *Eucalyptus leucophloia* subsp. *euroa* (5, 25%), *Eucalyptus leucophylla* (1, 38%)

*Frequent species (cover, frequency):* *Corymbia terminalis* (8, 100%), *Eucalyptus leucophylla* (38%), *Corymbia aparrerinja* (1, 25%), *Eucalyptus leucophloia* subsp. *euroa* (25%), *Atalaya hemiglauca* (13%), *Capparis umbonata* (13%), *Eucalyptus pruinosa* subsp. *pruinosa* (1, 13%), *Ventilago viminalis* (5, 13%)

**Stratum: Tree 2**

**Height avg. = 5.5m, 1 site**

**Crown cover avg. = 5.0%, 1 site**

*Frequent species (cover, frequency):* *Atalaya hemiglauca* (1, 13%), *Corymbia terminalis* (4, 13%), *Eucalyptus pruinosa* subsp. *pruinosa* (13%)

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.5m, range 0.8-1.8m, 8 sites****Crown cover avg. = 2.3%, range 0.6-7.0%, 8 sites**

Dominant species (relative cover, frequency): *Senna artemisioides* subsp. *helmsii* (56, 25%), *Gossypium australe* (39, 38%), *Carissa lanceolata* (31, 75%), *Atalaya hemiglauca* (13, 25%), *Acacia chisholmii* (7, 38%)

Frequent species (cover, frequency): *Carissa lanceolata* (1, 75%), *Acacia chisholmii* (38%), *Gossypium australe* (2, 38%), *Atalaya hemiglauca* (25%), *Senna artemisioides* subsp. *helmsii* (25%), *Acacia acradenia* (13%), *Acacia excelsa* subsp. *angusta* (13%), *Acacia tenuissima* (13%), *Acacia victoriae* (13%), *Cleome viscosa* (13%), *Corymbia aparrerinja* (1, 13%), *Corymbia terminalis* (13%), *Eremophila longifolia* (13%), *Eucalyptus pruinosa* subsp. *pruinosa* (13%), *Flueggea* indet. (13%), *Grevillea striata* (13%), *Hakea arborescens* (13%), *Hakea chordophylla* (13%), *Salsola australis* (13%), *Trichodesma zeylanicum* (13%), *Vachellia bidwillii* (13%), *Vachellia farnesiana*\* (1, 13%)

**Stratum: Shrub 2****Height avg. = 0.7m, range 0.55-0.8m, 2 sites****Crown cover avg. = 8.0%, range 1.0-15.0%, 2 sites**

Frequent species (cover, frequency): *Aerva javanica*\* (15, 13%), *Senna notabilis* (13%), *Vachellia farnesiana*\* (13%)

**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.8m, 8 sites****PFC avg. = 46.4%, range 10-70%, 8 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (74, 25%), *Sehima nervosum* (43, 38%), *Aristida latifolia* (34, 38%), *Enneapogon nigricans* (8, 25%), *Eulalia aurea* (8, 25%)

Frequent species (cover, frequency): GRAMINOIDs: *Chrysopogon fallax* (63%), *Cenchrus pennisetiformis*\* (2, 50%), *Enneapogon polypyllus* (1, 50%), *Sporobolus australasicus* (1, 50%), *Aristida contorta* (4, 38%), *Aristida latifolia* (17, 38%), *Aristida pruinosa* (1, 38%), *Sehima nervosum* (25, 38%), *Themeda triandra* (2, 38%), *Enneapogon nigricans* (5, 25%), *Eulalia aurea* (5, 25%), *Mnesithea formosa* (3, 25%), *Triodia pungens* (26, 25%), *Aristida holathera* var. *holathera* (13%), *Aristida inaequiglumis* (10, 13%), *Aristida* indet. (5, 13%), *Aristida ingrata* (10, 13%), *Bothriochloa ewartiana* (4, 13%), *Bulbostylis barbata* (13%), *Cenchrus ciliaris*\* (20, 13%), *Chloris pectinata* (13%), *Dactyloctenium radulans* (13%), *Dichanthium secundum* (10, 13%), *Enneapogon purpurascens* (15, 13%), *Eragrostis cumingii* (2, 13%), *Eragrostis pilosa*\* (5, 13%), *Eriachne mucronata* (13%), *Fimbristylis* indet. (13%), *Heteropogon contortus* (3, 13%), *Iseilema* indet. (13%), *Panicum decompositum* (13%), *Schizachyrium* indet. (13%), *Sporobolus actinocladus* (13%), *Sporobolus caroli* (13%), *Urochloa* indet. (13%)

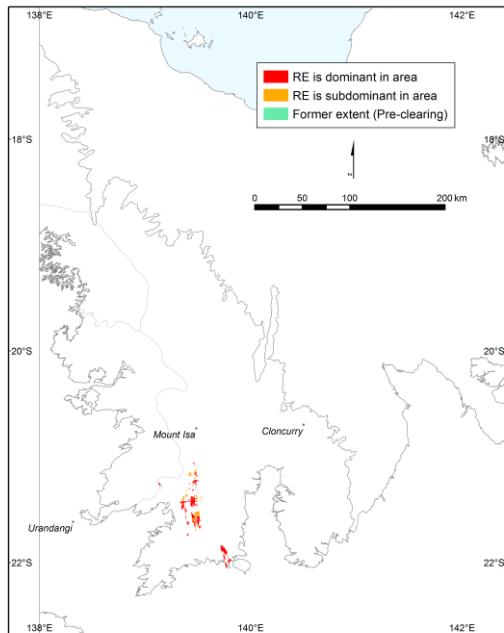
FORBS: *Pterocaulon serrulatum* (1, 63%), *Indigofera linifolia* (50%), *Boerhavia* indet. (38%), *Evolvulus alsinoides* var. *villosicalyx* (38%), *Heliotropium tenuifolium* (38%), *Indigofera linnaei* (3, 38%), *Portulaca* indet. (38%), *Rhynchosia minima* (38%), *Sida fibulifera* (38%), *Streptoglossa decurrents* (38%), *Streptoglossa odora* (38%), *Trichodesma zeylanicum* (38%), *Abutilon hannii* (25%), *Achyranthes aspera* (25%), *Cleome viscosa* (2, 25%), *Salsola australis* (25%), *Abutilon* indet. (13%), *Abutilon otocarpum* (13%), *Aeschynomene indica* (13%), *Alternanthera* sp. (Mt Isa R.L.Specht+ 49) (13%), *Capparis umbonata* (13%), *Crotalaria novae-hollandiae* (13%), *Cullen balsamicum* (13%), *Euphorbia australis* var. *subtomentosa* (13%), *Euphorbia coghlani* (13%), *Euphorbia papillata* (13%), *Euphorbia tannensis* subsp. *eremophila* (13%), *Evolvulus alsinoides* (13%), *Gossypium australe* (13%), *Heliotropium* indet. (13%), *Hibiscus sturtii* var. *sturtii* (13%), *Hybanthus aurantiacus* (13%), *Indigofera colutea* (13%), *Marsilea* indet. (13%), *Melhania oblongifolia* (13%), *Neptunia dimorphantha* (13%), *Neptunia* indet. (13%), *Polycarpea corymbosa* (13%), *Ptilotus* indet. (13%), *Ptilotus obovatus* (13%), *Ptilotus schwartzii* (13%), *Rhynchosia minima* var. *minima* (13%), *Sclerolaena lanicuspis* (13%), *Senna notabilis* (13%), *Senna planiticola* (13%), *Sida cleisocalyx* (3, 13%), *Sida* indet. (13%), *Sida* sp. (Musselbrook M.B.Thomas+ MRS437) (13%), *Sida spinosa*\* (13%), *Solanum* indet. (13%), *Solanum succosum* (13%), *Tephrosia phaeosperma* var. (Westmoreland S.Melville 967) (13%), *Tephrosia supina* (13%), *Waltheria indica* (13%), *Xanthium occidentale*\* (13%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.4c: Eucalyptus leucophylla and mixed eucalypt species low open mallee woodland on plains and valley bottoms



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 18,150 18,150 100.00%

Species recorded: Total: 20; woody: 9; ground: 11; Avg. spp./site: 20.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 0.8 m<sup>2</sup>/ha, range: 0.8 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative sites: 55577.

#### Stratum: Tree 1

Height avg. = 5.0m, 1 site

Crown cover avg. = 14.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (57, 100%), *Eucalyptus gamophylla* (43, 100%)

Frequent species (cover, frequency): *Eucalyptus gamophylla* (6, 100%), *Eucalyptus leucophylla* (8, 100%)

#### Stratum: Shrub 1

Height avg. = 1.2m, 1 site

Crown cover avg. = 8.0%, 1 site

Dominant species (relative cover, frequency): *Eremophila latrobei* subsp. *latrobei* (37, 100%), *Acacia tenuissima* (37, 100%), *Owenia acidula* (19, 100%), *Senna artemisioides* subsp. *filifolia* (2, 100%), *Capparis lasiantha* (2, 100%)

Frequent species (cover, frequency): *Acacia elachantha* (100%), *Acacia tenuissima* (2, 100%), *Atalaya hemiglaucha* (100%), *Capparis lasiantha* (100%), *Eremophila latrobei* subsp. *latrobei* (2, 100%), *Owenia acidula* (1, 100%), *Senna artemisioides* subsp. *filifolia* (100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Ground****Height avg. = 0.4m, 1 site****PFC avg. = 29.0%, 1 site**

Dominant species (relative cover, frequency): *Triodia pungens* (84, 100%), *Cenchrus pennisetiformis\** (10, 100%), *Eragrostis eriopoda* (3, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida inaequiglumis* (100%), *Aristida pruinosa* (100%), *Bothriochloa ewartiana* (100%), *Cenchrus pennisetiformis\** (3, 100%), *Digitaria brownii* (100%), *Eragrostis eriopoda* (1, 100%), *Triodia pungens* (25, 100%)

FORBS: *Hibiscus burtonii* (100%), *Maireana indet.* (100%), *Ptilotus obovatus* (100%), *Sida fibulifera* (100%)

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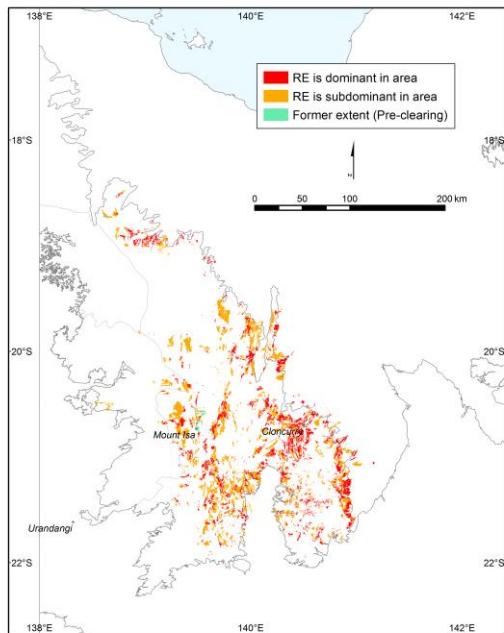
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.5.4d: Eucalyptus leucophylla low open woodland with Corymbia terminalis on red earths



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 277,192 273,837 98.79%

Species\_recorded: Total: 182; woody: 46; ground: 149; Avg. spp./site: 26.6; std dev.: 9.7, 17 site(s)

Basal area: Avg./site: 2.0 m<sup>2</sup>/ha, range: 0.5 - 6 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 11 site(s)

Structural formation: Low open-woodland: 88%; open-woodland: 6%; low woodland: 6%, 17 site(s)

Representative\_sites: 19302, 19343, 19393, 19395, 19475, 19509, 23424, 40531, 42056, 42139, 42141, 45294, 45319, 45325, 45349, 45368, 45474.

#### Stratum: Tree 1

Height avg. = 6.3m, range 4-11.5m, 17 sites

Crown cover avg. = 10.5%, range 2.9-38.0%, 17 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (73, 100%), *Corymbia terminalis* (20, 71%), *Atalaya hemiglaucha* (11, 35%)

Frequent species (cover, frequency): *Eucalyptus leucophylla* (8, 100%), *Corymbia terminalis* (2, 71%), *Atalaya hemiglaucha* (1, 35%), *Corymbia aparrerinja* (1, 18%), *Acacia cambagei* (1, 12%), *Eucalyptus leucophloia* subsp. *euroa* (1, 12%), *Acacia elachantha* (3, 6%), *Acacia sericophylla* (5, 6%), *Corymbia grandifolia* subsp. *grandifolia* (6%), *Denhamia cunninghamii* (6%), *Grevillea striata* (1, 6%), *Hakea lorea* subsp. *loreia* (6%)

#### Stratum: Tree 2

Height avg. = 3.7m, range 2-5m, 3 sites

Crown cover avg. = 10.0%, range 5.0-20.0%, 3 sites

Frequent species (cover, frequency): *Acacia elachantha* (2, 6%), *Acacia sericophylla* (2, 6%), *Atalaya hemiglaucha* (5, 6%), *Denhamia cunninghamii* (1, 6%), *Melaleuca viridiiflora* (20, 6%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.8m, range 1.5-2.5m, 17 sites****Crown cover avg. = 7.7%, range 0.6-20.0%, 17 sites**

*Dominant species (relative cover, frequency): Acacia chisholmii (40, 47%), Carissa lanceolata (30, 82%), Atalaya hemiglaucha (26, 29%), Gossypium australe (11, 53%), Vachellia farnesiana\* (8, 29%)*

*Frequent species (cover, frequency): Carissa lanceolata (2, 82%), Gossypium australe (53%), Acacia chisholmii (3, 47%), Atalaya hemiglaucha (2, 29%), Vachellia farnesiana\* (29%), Senna artemisioides subsp. helmsii (24%), Eremophila longifolia (1, 18%), Flueggea virosa subsp. melanthesoides (18%), Acacia adsurgens (12%), Acacia elachantha (8, 12%), Acacia melleodora (11, 12%), Acacia sericophylla (12%), Denhamia cunninghamii (1, 12%), Eremophila latrobei subsp. latrobei (12%), Eremophila mitchellii (2, 12%), Grevillea striata (1, 12%), Senna artemisioides subsp. oligophylla (12%), Acacia cambagei (6%), Acacia excelsa subsp. angusta (6%), Acacia holosericea (6%), Acacia orthocarpa (6%), Acacia tenuissima (6%), Acacia victoriae (6%), Capparis lasiantha (6%), Cassytha indet. (3, 6%), Crotalaria novae-hollandiae (6%), Cucumis argenteus (6%), Eremophila latrobei (6%), Eremophila latrobei subsp. glabra (6%), Eucalyptus leucophylla (4, 6%), Hibiscus sturtii (6%), Lysiphyllo cunninghamii (6%), Santalum lanceolatum (6%), Senna glutinosa subsp. pruinosa (6%), Senna indet. (6%), Senna planititcola (6%)*

**Stratum: Shrub 2****Height avg. = 1.0m, range 0.9-1.1m, 3 sites****Crown cover avg. = 5.7%, range 0.0-15.0%, 3 sites**

*Frequent species (cover, frequency): Gossypium australe (12%), Acacia phlebocarpa (15, 6%), Acacia sericophylla (6%), Aerva javanica\* (6%), Atalaya hemiglaucha (6%), Carissa lanceolata (6%), Denhamia cunninghamii (6%), Dodonaea physocarpa (6%), Dolichandrone heterophylla (6%), Flueggea virosa subsp. melanthesoides (6%), Senna planitiicola (6%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.5m, range 0.25-1m, 17 sites****PFC avg. = 41.7%, range 2-74%, 17 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (49, 65%), *Triodia longiceps* (31, 24%), *Aristida pruinosa* (22, 24%), *Enneapogon polypyphillus* (14, 41%), *Cenchrus pennisetiformis\** (11, 47%)

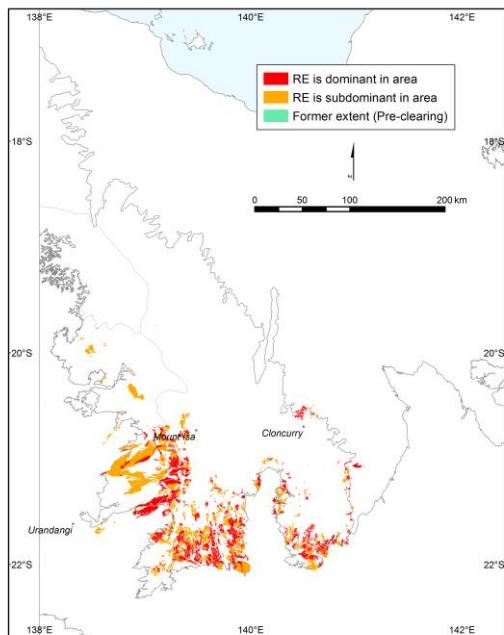
Frequent species (cover, frequency): **GRAMINOIDs:** *Triodia pungens* (16, 65%), *Aristida contorta* (2, 53%), *Cenchrus pennisetiformis\** (3, 47%), *Enneapogon polypyphillus* (7, 41%), *Chrysopogon fallax* (3, 35%), *Heteropogon contortus* (2, 35%), *Themeda triandra* (1, 35%), *Aristida latifolia* (3, 29%), *Aristida pruinosa* (15, 24%), *Eriachne mucronata* (1, 24%), *Sporobolus australasicus* (1, 24%), *Triodia longiceps* (20, 24%), *Bothriochloa ewartiana* (4, 18%), *Cymbopogon bombycinus* (18%), *Cymbopogon obtectus* (18%), *Dactyloctenium radulans* (18%), *Enneapogon lindleyanus* (1, 18%), *Eulalia aurea* (4, 18%), *Sporobolus actinocladus* (18%), *Aristida holathera* var. *holathera* (12%), *Aristida lazaridis* (12%), *Chloris virgata\** (1, 12%), *Digitaria indet.* (1, 12%), *Eriachne indet.* (20, 12%), *Triodia molesta* (33, 12%), *Aristida inaequiglumis* (6%), *Bothriochloa decipiens* var. *cloncurrensis* (10, 6%), *Bulbostylis barbata* (6%), *Cenchrus ciliaris\** (6%), *Chloris pectinata* (6%), *Cyperus conicus* var. *conicus* (5, 6%), *Dichanthium fecundum* (2, 6%), *Digitaria ammophila* (6%), *Digitaria brownii* (6%), *Enneapogon indet.* (5, 6%), *Eragrostis cumingii* (2, 6%), *Eragrostis elongata* (6%), *Eragrostis fallax* (22, 6%), *Eragrostis indet.* (1, 6%), *Eragrostis leptocarpa* (6%), *Eragrostis tenellula* (6%), *Fimbristylis bisumbellata* (3, 6%), *Fimbristylis indet.* (3, 6%), *Iseilema vaginiflorum* (6%), *Mnesithea formosa* (6%), *Oxychloris scariosa* (6%), *Panicum decompositum* (6%), *Panicum decompositum* var. *decompositum* (6%), *Perotis rara* (6%), *Sehima nervosum* (5, 6%), *Sporobolus caroli* (6%), *Tragus australianus* (6%)  
**FORBS:** *Solanum quadriloculatum* (1, 41%), *Heliotropium tenuifolium* (29%), *Melhania oblongifolia* (29%), *Salsola australis* (29%), *Sida sp.* (*Musselbrook M.B.Thomas+ MRS437*) (29%), *Cleome viscosa* (24%), *Euphorbia tannensis* subsp. *eremophila* (24%), *Evolvulus alsinoides* (24%), *Indigofera linifolia* (24%), *Sida indet.* (24%), *Alternanthera indet.* (18%), *Boerhavia indet.* (18%), *Bonamia media* (18%), *Cassytha capillaris* (18%), *Indigofera linnaei* (18%), *Malvastrum americanum* (18%), *Pterocaulon serrulatum* (18%), *Pterocaulon serrulatum* var. *serrulatum* (18%), *Sclerolaena cornishiana* (18%), *Sida fibulifera* (18%), *Trichodesma zeylanicum* var. *zeylanicum* (18%), *Waltheria indica* (18%), *Achyranthes aspera* (12%), *Aerva javanica\** (12%), *Alternanthera nana* (12%), *Capparis lasiantha* (12%), *Einadia nutans* subsp. *eremaea* (12%), *Euphorbia indet.* (12%), *Goodenia armittiana* (12%), *Gossypium australe* (12%), *Heliotropium indet.* (12%), *Hibiscus sturtii* (2, 12%), *Hybanthus aurantiacus* (12%), *Indigofera colutea* (12%), *Phyllanthus maderaspatensis* var. *angustifolius* (12%), *Portulaca oleracea\** (12%), *Portulaca pilosa\** (12%), *Ptilotus obovatus* (12%), *Streptoglossa odora* (12%), *Stylosanthes indet.* (12%), *Abutilon hannii* (6%), *Abutilon indet.* (6%), *Acacia holosericea* (6%), *Alternanthera nodiflora* (6%), *Boerhavia pubescens* (6%), *Carissa lanceolata* (6%), *Cassytha indet.* (3, 6%), *Chamaecrista absus* var. *absus* (6%), *Convolvulaceae indet.* (6%), *Convolvulus indet.* (6%), *Crotalaria medicaginea* (6%), *Cucumis argenteus* (6%), *Eremophila latrobei* (6%), *Eremophila longifolia* (6%), *Euphorbia schultzii* (6%), *Evolvulus alsinoides* var. *vilosicalyx* (6%), *Goodenia vilmoriniae* (6%), *Hakea lorea* subsp. *loreia* (6%), *Heliotropium haesum* (6%), *Hibiscus meraukensis* (6%), *Hibiscus sturtii* var. *sturtii* (6%), *Maireana indet.* (6%), *Malvastrum americanum* var. *americanum\** (6%), *Marsdenia indet.* (6%), *Marsdenia viridiflora* subsp. *tropica* (6%), *Melhania ovata* (6%), *Ocimum caryophyllum* (1, 6%), *Peripleura obovata* (6%), *Phyllanthus indet.* (6%), *Phyllanthus maderaspatensis* (6%), *Phyllanthus maderaspatensis* var. *maderaspatensis* (6%), *Polycarpaea corymbosa* (6%), *Polygala indet.* (6%), *Polymeria ambigua* (6%), *Psydrax attenuata* (6%), *Pterocaulon indet.* (6%), *Ptilotus fusiformis* (6%), *Rhynchosia minima* (6%), *Scaevola ovalifolia* (6%), *Senna artemisioides* subsp. *helmsii* (6%), *Senna oligoclada* (6%), *Senna planiticola* (6%), *Sida platycalyx* (6%), *Sida rohlenae* (6%), *Solanum ferociissimum* (1, 6%), *Solanum indet.* (6%), *Solanum succosum* (1, 6%), *Sphaeranthus indicus* (6%), *Streptoglossa decurrents* (6%), *Tephrosia brachyodon* (6%), *Tephrosia leptoclada* (6%), *Trianthema triquetra* (6%), *Tribulus terrestris* (6%), *Trichodesma zeylanicum* (6%), *Vigna lanceolata* (6%), *Xenostegia tridentata* (6%), *Zornia muriculata* (6%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.6c: *Atalaya hemiglaucia*, *Corymbia terminalis*, *Acacia cambagei* and/or *Grevillea striata* low open woodland on red earth plains



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 292,376 291,911 99.84%

Species recorded: Total: 95; woody: 26; ground: 73; Avg. spp./site: 28.2; std dev.: 12.1, 6 site(s)

Basal area: Avg./site: 0.8 m<sup>2</sup>/ha, range: 0.3 - 2 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 4 site(s)

Structural formation: Low open-woodland: 100%, 6 site(s)

Representative sites: 23409, 40863, 42126, 55474, 57354, 59641.

#### Stratum: Tree 1

Height avg. = 5.5m, range 5-6m, 5 sites

Crown cover avg. = 6.3%, range 3.0-12.0%, 6 sites

Dominant species (relative cover, frequency): *Atalaya hemiglaucia* (57, 100%), *Corymbia terminalis* (21, 67%), *Acacia aneura* (15, 50%), *Grevillea striata* (14, 50%), *Ventilago viminalis* (9, 83%)

Frequent species (cover, frequency): *Atalaya hemiglaucia* (4, 100%), *Ventilago viminalis* (83%), *Corymbia terminalis* (1, 67%), *Acacia aneura* (2, 50%), *Grevillea striata* (1, 50%), *Eucalyptus leucophylla* (33%), *Acacia cambagei* (17%), *Capparis lasiantha* (17%), *Corymbia aparrerinja* (17%), *Eucalyptus pruinosa* subsp. *pruinosa* (2, 17%), *Lysiana subfalcata* (17%)

#### Stratum: Tree 2

Height avg. = 3.5m, 1 site

Crown cover avg. = 1.0%, 1 site

Frequent species (cover, frequency): *Acacia elachantha* (17%), *Acacia sericophylla* (1, 17%), *Atalaya hemiglaucia* (1, 17%), *Eremophila longifolia* (17%), *Senna glutinosa* subsp. *glutinosa* (17%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.1m, range 0.7-1.5m, 5 sites****Crown cover avg. = 3.0%, range 0.0-8.0%, 6 sites**

Dominant species (relative cover, frequency): *Carissa lanceolata* (52, 100%), *Atalaya hemiglaucha* (41, 50%), *Gossypium australe* (24, 50%)

Frequent species (cover, frequency): *Carissa lanceolata* (2, 100%), *Atalaya hemiglaucha* (50%), *Gossypium australe* (50%), *Acacia cambagei* (17%), *Acacia chisholmii* (1, 17%), *Acacia excelsa* subsp. *angusta* (17%), *Acacia tenuissima* (17%), *Capparis lasiantha* (1, 17%), *Eremophila latrobei* (1, 17%), *Eremophila latrobei* subsp. *glabra* (17%), *Senna artemisioides* subsp. *oligophylla* (17%), *Senna artemisioides* subsp. *sturtii* (2, 17%), *Senna glutinosa* subsp. *pruinosa* (17%), *Vachellia farnesiana*\* (17%)

**Stratum: Ground****Height avg. = 0.4m, range 0.2-0.5m, 6 sites****PFC avg. = 34.5%, range 17-49%, 6 sites**

Dominant species (relative cover, frequency): *Aristida contorta* (46, 83%), *Eulalia aurea* (23, 50%), *Tripogon loliiformis* (13, 50%), *Aristida latifolia* (8, 33%), *Bothriochloa ewartiana* (7, 67%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida contorta* (17, 83%), *Bothriochloa ewartiana* (3, 67%), *Sporobolus australasicus* (1, 67%), *Chrysopogon fallax* (50%), *Eulalia aurea* (9, 50%), *Fimbristylis dichotoma* (50%), *Tripogon loliiformis* (2, 50%), *Aristida inaequiglumis* (3, 33%), *Aristida latifolia* (3, 33%), *Digitaria brownii* (1, 33%), *Enneapogon nigricans* (33%), *Enneapogon polypyllus* (2, 33%), *Aristida* indet. (10, 17%), *Aristida ingrata* (20, 17%), *Brachyachne convergens* (17%), *Bulbostylis barbata* (1, 17%), *Dactyloctenium radulans* (1, 17%), *Enneapogon avenaceus* (1, 17%), *Eragrostis cumingii* (17%), *Eragrostis xerophila* (3, 17%), *Eriachne armiflora* (5, 17%), *Eriachne mucronata* (1, 17%), *Eriachne pulchella* (17%), *Fimbristylis bisumbellata* (17%), *Paraneurachne muelleri* (1, 17%), *Paspalidium rarum* (17%), *Perotis rara* (17%), *Themeda triandra* (4, 17%), *Triodia pungens* (3, 17%)

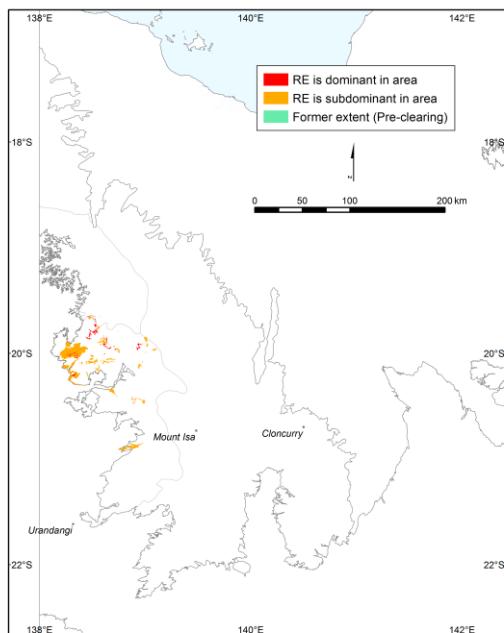
FORBS: *Sida cleisocalyx* (1, 67%), *Sida fibulifera* (1, 67%), *Solanum quadriloculatum* (67%), *Abutilon otocarpum* (50%), *Evolvulus alsinoides* var. *villosicalyx* (50%), *Sclerolaena cornishiana* (50%), *Sida platycalyx* (50%), *Boerhavia* indet. (33%), *Bonamia media* (33%), *Cleome viscosa* (33%), *Crotalaria medicaginea* (33%), *Gossypium australe* (33%), *Heliotropium cunninghamii* (33%), *Indigofera linnaei* (33%), *Ipomoea muelleri* (1, 33%), *Portulaca* indet. (33%), *Pterocaulon serrulatum* (1, 33%), *Salsola australis* (1, 33%), *Streptoglossa decurrens* (33%), *Corchorus trilocularis* (17%), *Crotalaria* indet. (17%), *Crotalaria novae-hollandiae* (1, 17%), *Enchytraea tomentosa* (17%), *Euphorbia bifida* (17%), *Euphorbia papillata* var. *papillata* (17%), *Euphorbia tannensis* (17%), *Evolvulus alsinoides* (17%), *Gomphrena* indet. (17%), *Goodenia fascicularis* (17%), *Heliotropium tanythrix* (17%), *Indigofera colutea* (17%), *Indigofera linifolia* (17%), *Marsdenia viridiflora* subsp. *tropica* (17%), *Portulaca oleracea*\* (17%), *Portulaca pilosa*\* (17%), *Pterocaulon* indet. (17%), *Pterocaulon serrulatum* var. *velutinum* (17%), *Ptilotus fusiformis* (17%), *Rhynchosia minima* (17%), *Senna notabilis* (17%), *Trichodesma zeylanicum* (17%), *Vigna lanceolata* (17%), *Waltheria indica* (17%), *Zornia muriculata* (17%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.5.6d: *Ventilago viminalis* low open woodland on loams on sand sheet margins



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 20,673 20,647 99.88%

Species recorded: Total: 42; woody: 10; ground: 32; Avg. spp./site: 42.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 1.8 m<sup>2</sup>/ha, range: 1.8 - 2 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 1 site(s)

Representative sites: 42159.

#### Stratum: Tree 1

Height avg. = 7.0m, 1 site

Crown cover avg. = 10.0%, 1 site

Dominant species (relative cover, frequency): *Ventilago viminalis* (50, 100%), *Grevillea striata* (20, 100%), *Eucalyptus pruinosa* subsp. *pruinosa* (20, 100%), *Atalaya hemiglaucha* (10, 100%), *Ehretia saligna* (1, 100%)

Frequent species (cover, frequency): *Atalaya hemiglaucha* (1, 100%), *Ehretia saligna* (100%), *Eucalyptus pruinosa* subsp. *pruinosa* (2, 100%), *Grevillea striata* (2, 100%), *Ventilago viminalis* (5, 100%)

#### Stratum: Tree 2

Height avg. = 2.0m, 1 site

Crown cover avg. = 2.0%, 1 site

Dominant species (relative cover, frequency): *Psydrax attenuata* (100, 100%)

Frequent species (cover, frequency): *Psydrax attenuata* (2, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.5m, 1 site****Crown cover avg. = 5.0%, 1 site**

*Dominant species (relative cover, frequency): Carissa lanceolata (57, 100%), Atalaya hemiglauca (38, 100%), Vachellia farnesiana\* (2, 100%), Owenia acidula (2, 100%), Gossypium australe (2, 100%)*

*Frequent species (cover, frequency): Atalaya hemiglauca (2, 100%), Carissa lanceolata (3, 100%), Gossypium australe (100%), Owenia acidula (100%), Vachellia farnesiana\* (100%)*

**Stratum: Ground****Height avg. = 1.0m, 1 site****PFC avg. = 84.0%, 1 site**

*Dominant species (relative cover, frequency): Aristida latifolia (24, 100%), Sida cleisocalyx (18, 100%), Eulalia aurea (18, 100%), Enneapogon polypyllus (12, 100%), Aristida pruinosa (6, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Aristida contorta (2, 100%), Aristida hygrometrica (1, 100%), Aristida latifolia (20, 100%), Aristida pruinosa (5, 100%), Austrochlois dichanthoides (2, 100%), Bothriochloa ewartiana (5, 100%), Chloris pectinata (100%), Chrysopogon fallax (1, 100%), Cyperus iria (100%), Enneapogon polypyllus (10, 100%), Eulalia aurea (15, 100%), Iseilema macratherum (100%), Panicum decompositum var. decompositum (100%), Paspalidium constrictum (100%), Sporobolus australasicus (100%), Themeda avenacea (100%), Tragus australianus (100%), Triodia pungens (2, 100%)*

*FORBS: Alternanthera denticulata var. micrantha (100%), Bonamia media (100%), Euphorbia indet. (100%), Glycine indet. (100%), Ipomoea muelleri (100%), Marsilea exarata (1, 100%), Melhania ovata (100%), Portulaca oleracea\* (100%), Salsola australis (1, 100%), Sclerolaena bicornis (1, 100%), Sida cleisocalyx (15, 100%), Sida fibulifera (2, 100%), Sida spinosa\* (100%), Solanum quadriloculatum (100%)*

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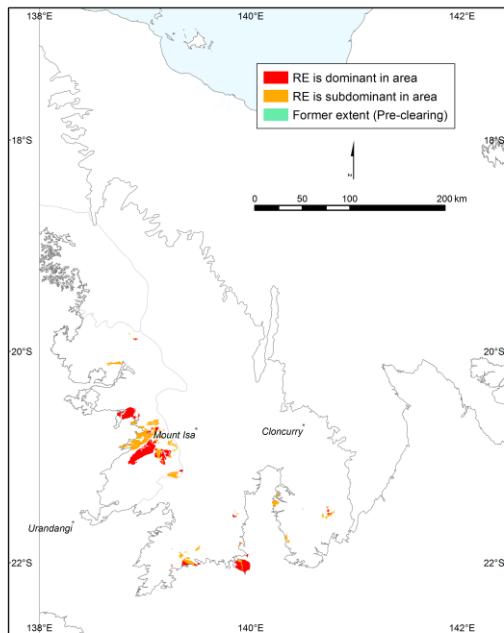
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.5.7: Acacia aneura low woodland on sandy red earth plains



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 60,571 60,550 99.96%

Species recorded: Total: 25; woody: 11; ground: 14; Avg. spp./site: 25.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 1.0 m<sup>2</sup>/ha, range: 1.0 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low woodland: 100%, 1 site(s)

Representative sites: 42124.

#### Stratum: Tree 1

Height avg. = 5.0m, 1 site

Crown cover avg. = 33.0%, 1 site

Dominant species (relative cover, frequency): *Acacia aneura* (91, 100%), *Eucalyptus leucophloia* subsp. *euroa* (9, 100%)

Frequent species (cover, frequency): *Acacia aneura* (30, 100%), *Eucalyptus leucophloia* subsp. *euroa* (3, 100%)

#### Stratum: Tree 2

Height avg. = 3.0m, 1 site

Crown cover avg. = 0.0%, 1 site

Dominant species (relative cover, frequency): *Grevillea striata* (50, 100%), *Acacia excelsa* (50, 100%)

Frequent species (cover, frequency): *Acacia excelsa* (100%), *Grevillea striata* (100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.5m, 1 site****Crown cover avg. = 15.0%, 1 site**

Dominant species (relative cover, frequency): *Senna artemisioides* subsp. *sturtii* (32, 100%), *Senna artemisioides* subsp. *oligophylla* (32, 100%), *Acacia chisholmii* (32, 100%), *Hakea chordophylla* (1, 100%), *Gossypium australe* (1, 100%)

Frequent species (cover, frequency): *Acacia chisholmii* (5, 100%), *Atalaya hemiglaaca* (100%), *Eremophila latrobei* (100%), *Gossypium australe* (100%), *Hakea chordophylla* (100%), *Senna artemisioides* subsp. *oligophylla* (5, 100%), *Senna artemisioides* subsp. *sturtii* (5, 100%)

**Stratum: Ground****Height avg. = 0.5m, 1 site****PFC avg. = 28.0%, 1 site**

Dominant species (relative cover, frequency): *Aristida latifolia* (18, 100%), *Aristida holathera* var. *holathera* (18, 100%), *Aristida contorta* (18, 100%), *Triodia pungens* (11, 100%), *Eragrostis desertorum* (11, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida contorta* (5, 100%), *Aristida holathera* var. *holathera* (5, 100%), *Aristida latifolia* (5, 100%), *Bothriochloa erwartiana* (1, 100%), *Digitaria brownii* (100%), *Enneapogon robustissimus* (2, 100%), *Eragrostis desertorum* (3, 100%), *Paraneurachne muelleri* (2, 100%), *Triodia pungens* (3, 100%)

FORBS: *Einadia nutans* (100%), *Maireana villosa* (100%), *Ptilotus obovatus* (100%), *Sida fibulifera* (1, 100%), *Sida platycalyx* (1, 100%)

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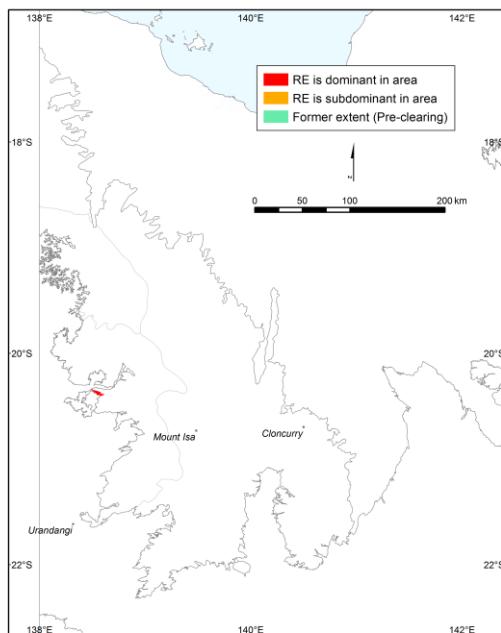
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.6.1: Mixed forblad with *Acacia stipuligera* on linear sand dunes and associated sandplains



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 2,771 2,771 100.00%

**Species recorded:** Total: 61; woody: 12; ground: 52; Avg. spp./site: 26.7; std dev.: 6.0, 3 site(s)

**Basal area:** Avg./site: 1.0 m<sup>2</sup>/ha, range: 1.0 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Shrubland: 33%; low open-woodland: 33%; forblad: 33%, 3 site(s)

**Representative sites:** 40862, 42137, 42180.

#### Stratum: Emergent

Height avg. = 11.0m, 1 site

Crown cover avg. = 0.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia terminalis* (50, 33%), *Corymbia aparrerinja* (50, 33%)

Frequent species (cover, frequency): *Corymbia aparrerinja* (33%), *Corymbia terminalis* (33%)

#### Stratum: Tree 1

Height avg. = 5.0m, 1 site

Crown cover avg. = 2.0%, 1 site

Dominant species (relative cover, frequency): *Ventilago viminalis* (95, 33%), *Capparis umbonata* (5, 33%)

Frequent species (cover, frequency): *Capparis umbonata* (33%), *Ventilago viminalis* (2, 33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 1.3m, range 1-1.5m, 2 sites****Crown cover avg. = 34.0%, range 8.0-60.0%, 2 sites**

Dominant species (relative cover, frequency): *Acacia stipuligera* (99, 33%), *Croton aridus* (62, 33%), *Atalaya hemiglaucha* (25, 33%), *Carissa lanceolata* (12, 33%), *Acacia sericophylla* (1, 33%)

Frequent species (cover, frequency): *Acacia chisholmii* (33%), *Acacia sericophylla* (33%), *Acacia stipuligera* (50, 33%), *Atalaya hemiglaucha* (2, 33%), *Carissa lanceolata* (1, 33%), *Croton aridus* (5, 33%), *Gastrolobium grandiflorum* (33%), *Senna artemisioides* (33%)

**Stratum: Ground****Height avg. = 0.5m, range 0.3-0.6m, 3 sites****PFC avg. = 56.7%, range 39-66%, 3 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (24, 67%), *Aristida holathera* var. *holathera* (14, 67%), *Crotalaria novae-hollandiae* subsp. *lasiophylla* (14, 100%), *Corynotheca micrantha* var. *divaricata* (13, 33%), *Eriachne obtusa* (13, 67%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida holathera* var. *holathera* (8, 67%), *Aristida hygrometrica* (3, 67%), *Eriachne obtusa* (7, 67%), *Triodia pungens* (10, 67%), *Aristida inaequiglumis* (33%), *Aristida ingrata* (1, 33%), *Dactyloctenium radulans* (33%), *Eragrostis eriopoda* (3, 33%), *Paraneurachne* indet. (1, 33%), *Schizachyrium fragile* (33%), *Urochloa holosericea* (33%), *Yakirra australiensis* (33%)

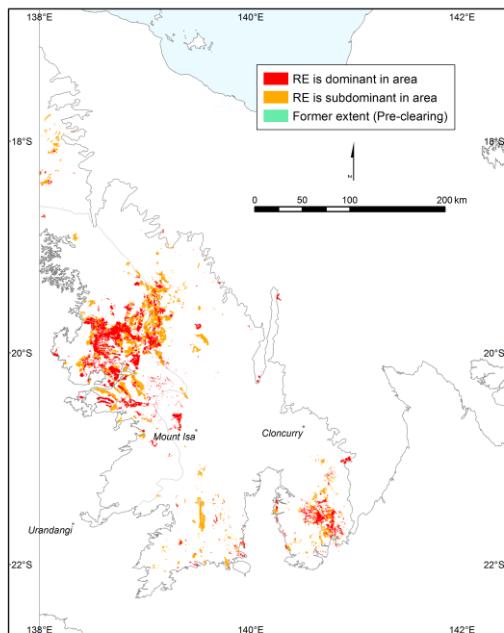
FORBS: *Crotalaria novae-hollandiae* subsp. *lasiophylla* (8, 100%), *Spermacoce auriculata* (2, 100%), *Trianthema pilosa* (4, 100%), *Euphorbia* indet. (1, 67%), *Microstachys chamaelea* (1, 67%), *Polymeria ambigua* (2, 67%), *Scaevola* indet. (2, 67%), *Scaevola parvifolia* subsp. *parvifolia* (1, 67%), *Waltheria indica* (3, 67%), *Bonamia media* (5, 33%), *Buchnera* indet. (33%), *Chamaecrista longipes* (33%), *Chamaecrista symonii* (2, 33%), *Corynotheca micrantha* var. *divaricata* (8, 33%), *Croton aridus* (33%), *Dodonaea coriacea* (33%), *Euphorbia petala* (4, 33%), *Euphorbia tannensis* (1, 33%), *Euphorbia tannensis* subsp. *eremophila* (33%), *Galactia* indet. (33%), *Heliotropium styotrichum* (33%), *Heliotropium tenuifolium* (33%), *Hibiscus brachychlaenus* (33%), *Hybanthus aurantiacus* (33%), *Indigofera* indet. (33%), *Ipomoea* indet. (33%), *Melhania* indet. (3, 33%), *Psydrax attenuata* (33%), *Ptilotus polystachyus* (33%), *Sida* indet. (2, 33%), *Solanum succosum* (33%), *Streptoglossa* indet. (33%), *Striga squamigera* (33%), *Tribulopis angustifolia* (1, 33%), *Tribulus terrestris* (33%), *Triumfetta micracantha* (1, 33%), *Zornia albiflora* (33%), *Zornia* indet. (2, 33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.7.1a: Eucalyptus leucophloia low open woodland on skeletal soils on lateritic scarp and plateaus



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 270,144 269,737 99.85%

Species recorded: Total: 108; woody: 35; ground: 74; Avg. spp./site: 20.7; std dev.: 10.0, 7 site(s)

Basal area: Avg./site: 2.2 m<sup>2</sup>/ha, range: 0.5 - 6 m<sup>2</sup>/ha, std. deviation: 2 m<sup>2</sup>/ha, 6 site(s)

Structural formation: Low open-woodland: 71%; low woodland: 14%; low open-forest: 14%, 7 site(s)

Representative sites: 19416, 19421, 40847, 40854, 45479, 55534, 59635.

#### Stratum: Tree 1

Height avg. = 5.3m, range 4-7.5m, 7 sites

Crown cover avg. = 19.3%, range 7.0-58.0%, 7 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (99, 86%), *Atalaya hemiglaucha* (1, 29%), *Acacia shirleyi* (1, 43%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (18, 86%), *Acacia shirleyi* (43%), *Atalaya hemiglaucha* (29%), *Eucalyptus normantonensis* (25, 14%), *Eucalyptus pruinosa* subsp. *pruinosa* (14%), *Hakea lorea* subsp. *lorea* (14%)

#### Stratum: Tree 2

Height avg. = 2.8m, range 2.5-3m, 2 sites

Crown cover avg. = 6.0%, range 2.0-10.0%, 2 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (52, 29%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (5, 29%), *Eucalyptus odontocarpa* (1, 14%), *Eucalyptus pruinosa* subsp. *pruinosa* (1, 14%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 1.8m, range 1.4-2.5m, 7 sites****Crown cover avg. = 12.6%, range 0.0-38.0%, 7 sites***Dominant species (relative cover, frequency): Acacia acradenia (68, 29%), Acacia tenuissima (21, 29%)**Frequent species (cover, frequency): Acacia acradenia (23, 29%), Acacia tenuissima (1, 29%), Acacia chisholmii (14%), Acacia citriodora (3, 14%), Acacia elachantha (14%), Acacia gonoclada (1, 14%), Acacia lysiphloia (14%), Acacia megalantha (5, 14%), Acacia monticola (12, 14%), Acacia sericophylla (14%), Apophyllum anomalum (14%), Atalaya hemiglaucha (14%), Capparis lasiantha (14%), Carissa lanceolata (14%), Dodonaea lanceolata var. lanceolata (14%), Dodonaea stenophylla (14%), Dodonaea viscosa (20, 14%), Flueggea virosa subsp. melanthesoides (14%), Senna glutinosa subsp. pruinosa (14%)***Stratum: Shrub 2****Height avg. = 0.6m, range 0.5-0.7m, 4 sites****Crown cover avg. = 15.2%, range 3.0-30.0%, 4 sites***Dominant species (relative cover, frequency): Acacia chippendalei (88, 29%)**Frequent species (cover, frequency): Acacia chippendalei (23, 29%), Acacia asperulacea (4, 14%), Acacia chisholmii (2, 14%), Acacia elachantha (14%), Acacia melleodora (14%), Acacia sericophylla (14%), Acacia tenuissima (14%), Atalaya hemiglaucha (14%), Dodonaea barklyana (14%), Eremophila latrobei subsp. latrobei (14%), Eucalyptus leucophloia subsp. euroa (14%), Gossypium australe (14%), Senna artemisioides subsp. filifolia (14%), Senna artemisioides subsp. oligophylla (14%), Senna artemisioides subsp. sturtii (14%), Senna notabilis (14%)***Stratum: Ground****Height avg. = 0.5m, range 0.3-1m, 7 sites****PFC avg. = 45.0%, range 24-70%, 7 sites***Dominant species (relative cover, frequency): Triodia molesta (97, 29%), Triodia pungens (60, 43%), Triodia longiceps (53, 43%), Enneapogon lindleyanus (16, 43%), Eriachne mucronata (10, 29%)**Frequent species (cover, frequency): GRAMINOIDs: Enneapogon lindleyanus (7, 43%), Eulalia aurea (43%), Sporobolus australasicus (43%), Triodia longiceps (32, 43%), Triodia pungens (25, 43%), Enneapogon indet. (29%), Eriachne mucronata (3, 29%), Mnesithea formosa (2, 29%), Paspalidium rarum (29%), Triodia molesta (29, 29%), Aristida exserta (1, 14%), Aristida holathera var. holathera (3, 14%), Aristida inaequiglumis (5, 14%), Aristida pruinosa (14%), Bulbostylis barbata (14%), Cymbopogon ambiguus (14%), Cymbopogon bombycinus (14%), Digitaria indet. (14%), Enneapogon polyphyllus (14%), Eragrostis eriopoda (14%), Eriachne ciliata (14%), Eriachne mucronata forma (Burnham R.W.Purdie 1370) (5, 14%), Paraneurachne muelleri (5, 14%), Sporobolus actinocladus (14%)**FORBS: Pterocaulon serrulatum var. velutinum (43%), Abutilon hannii (2, 29%), Achyranthes aspera (29%), Bonamia indet. (29%), Hibiscus sturtii (1, 29%), Sida fibulifera (29%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (29%), Waltheria indica (29%), Alternanthera sp. (Mt Isa R.L.Speccht+ 49) (14%), Bergia diacheiron (14%), Boerhavia indet. (14%), Cleome viscosa (14%), Corchorus pumilio (14%), Corchorus sericeus subsp. sericeus (1, 14%), Eucalyptus leucophloia subsp. euroa (14%), Euphorbia tannensis (14%), Evolvulus alsinoides var. decumbens (14%), Heliotropium ballii (14%), Heliotropium styotrichum (14%), Hibiscus sturtii var. sturtii (14%), Indigofera hirsuta (14%), Indigofera indet. (14%), Malvastrum americanum (14%), Petalostylis cassioides (14%), Phyllanthus carpentariae (14%), Phyllanthus indet. (14%), Polymeria indet. (14%), Portulaca oleracea\* (14%), Pterocaulon ciliatum (14%), Pterocaulon sphacelatum (14%), Ptilotus schwartzii (14%), Rostellularia adscendens (14%), Schizaea indet. (14%), Sclerolaena indet. (14%), Sclerolaena lanicuspis (14%), Senna oligoclada (14%), Sida hackettiana (1, 14%), Sida indet. (14%), Sida macropoda (14%), Sida platycalyx (14%), Sida sp. (Jericho E.J.Thompson+ JER117) (14%), Solanum echinatum (14%), Solanum quadriloculatum (14%), Solanum succosum (14%), Sphaeranthus indet. (14%), Templetonia indet. (14%), Tephrosia lasiochlaena (14%), Tephrosia stuartii (14%), Tribulopis solandri (2, 14%)*

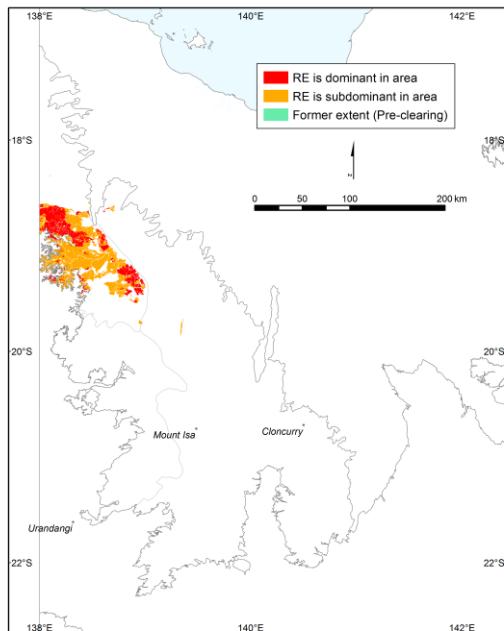
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.7.1e: *Eucalyptus leucophloia* low open woodland on silcrete



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 150,528 150,521 100.00%

Species recorded: Total: 61; woody: 20; ground: 43; Avg. spp./site: 17.0; std dev.: 2.4, 5 site(s)

Basal area: Avg./site: 3.0 m<sup>2</sup>/ha, range: 1.3 - 5 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 5 site(s)

Structural formation: Low open-woodland: 60%; low woodland: 40%, 5 site(s)

Representative sites: 19467, 23401, 39684, 40886, 42079.

#### Stratum: Tree 1

Height avg. = 6.3m, range 5-8.5m, 5 sites

Crown cover avg. = 15.6%, range 7.0-30.0%, 5 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (100, 100%)

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (16, 100%)

#### Stratum: Tree 2

Height avg. = 3.0m, 1 site

Crown cover avg. = 5.0%, 1 site

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (5, 20%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 1****Height avg. = 1.2m, range 0.7-1.75m, 5 sites****Crown cover avg. = 8.4%, range 1.0-20.0%, 5 sites**

Dominant species (relative cover, frequency): *Acacia gonoclada* (50, 40%), *Acacia tenuissima* (48, 40%), *Eucalyptus leucophloia* subsp. *euroa* (6, 40%)

Frequent species (cover, frequency): *Acacia gonoclada* (10, 40%), *Acacia tenuissima* (1, 40%), *Eucalyptus leucophloia* subsp. *euroa* (1, 40%), *Abutilon leucopetalum* (20%), *Acacia elachantha* (20%), *Acacia hammondii* (20%), *Acacia hilliana* (6, 20%), *Acacia phlebocarpa* (8, 20%), *Atalaya hemiglaucha* (20%), *Carissa lanceolata* (1, 20%), *Cynanchum brevipedicellatum* (20%), *Jacksonia lateritica* (20%), *Petalostigma quadriloculare* (5, 20%), *Sida* sp. (Musselbrook M.B.Thomas+ MRS437) (20%), *Waltheria indica* (20%)

**Stratum: Shrub 2****Height avg. = 1.0m, range 0.5-1.5m, 2 sites****Crown cover avg. = 9.0%, range 8.0-10.0%, 2 sites**

Dominant species (relative cover, frequency): *Acacia phlebocarpa* (80, 40%)

Frequent species (cover, frequency): *Acacia phlebocarpa* (8, 40%), *Acacia chippendalei* (20%), *Acacia wickhamii* (1, 20%), *Corchorus sericeus* (20%), *Dodonaea barklyana* (1, 20%), *Grevillea dryandri* subsp. *dryandri* (1, 20%), *Sida* sp. (Musselbrook M.B.Thomas+ MRS437) (20%)

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.6m, 5 sites****PFC avg. = 40.8%, range 30-60%, 5 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (62, 100%), *Triodia bitextura* (55, 40%), *Eulalia aurea* (1, 60%)

Frequent species (cover, frequency): GRAMINOIDs: *Triodia pungens* (23, 100%), *Eriachne* sp. (Dugald River B.K.Simon+ 3007) (60%), *Eulalia aurea* (60%), *Triodia bitextura* (24, 40%), *Aristida inaequiglumis* (20%), *Aristida latifolia* (20%), *Bulbostylis barbata* (20%), *Chrysopogon fallax* (20%), *Cymbopogon bombycinus* (2, 20%), *Cymbopogon obtectus* (20%), *Digitaria brownii* (20%), *Digitaria* indet. (1, 20%), *Eriachne mucronata* (20%), *Fimbristylis cardiocarpa* (20%), *Fimbristylis* indet. (1, 20%), *Panicum decompositum* (1, 20%), *Schizachyrium fragile* (2, 20%), *Sporobolus actinocladus* (1, 20%), *Triodia longiceps* (25, 20%), *Yakirra australiensis* var. *australiensis* (20%)

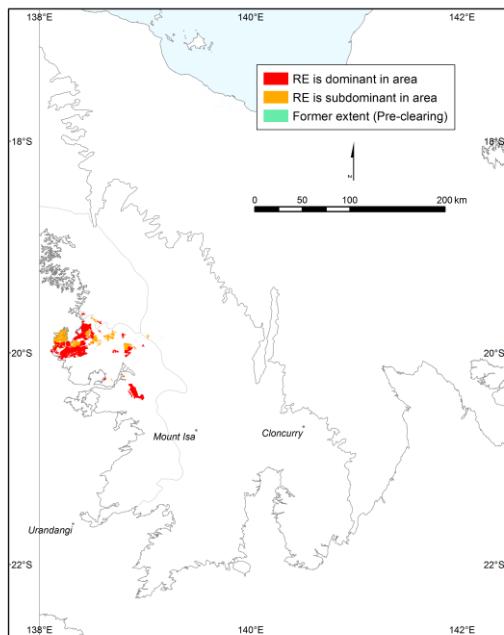
FORBS: *Acacia asperulacea* (40%), *Cleome viscosa* (40%), *Sida fibulifera* (40%), *Acacia chippendalei* (20%), *Carissa lanceolata* (20%), *Cassytha* indet. (1, 20%), *Cheilanthes* indet. (20%), *Cullen australasicum* (1, 20%), *Evolvulus alsinoides* (20%), *Heliotropium* indet. (20%), *Hibiscus sturtii* var. *campylochlamys* (20%), *Marsdenia* indet. (20%), *Neptunia* indet. (20%), *Phyllanthus exilis* (20%), *Polygala isingii* (20%), *Ptilotus calostachyus* (20%), *Ptilotus nobilis* (20%), *Solanum quadriloculatum* (20%), *Solanum succosum* (20%), *Tephrosia leptoclada* (20%), *Zornia muriculata* (20%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.7.2a: *Eucalyptus pruinosa* +/- *Eucalyptus leucophloia* low open woodland on eroded Tertiary surfaces



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 62,807 62,688 99.81%

Species recorded: Total: 44; woody: 21; ground: 23; Avg. spp./site: 18.0; std dev.: 8.6, 3 site(s)

Basal area: Avg./site: 1.8 m<sup>2</sup>/ha, range: 0.5 - 3 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 3 site(s)

Structural formation: Low open-woodland: 100%, 3 site(s)

Representative sites: 19471, 23400, 23406.

#### Stratum: Tree 1

Height avg. = 5.0m, range 4-6m, 3 sites

Crown cover avg. = 10.7%, range 7.0-16.0%, 3 sites

Dominant species (relative cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (73, 100%), *Eucalyptus leucophloia* subsp. *euroea* (67, 33%), *Corymbia aparrerinja* (13, 33%), *Hakea lorea* subsp. *loreia* (1, 33%)

Frequent species (cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (8, 100%), *Corymbia aparrerinja* (2, 33%), *Eucalyptus leucophloia* subsp. *euroea* (6, 33%), *Hakea lorea* subsp. *loreia* (33%)

#### Stratum: Shrub 1

Height avg. = 1.2m, range 0.6-2m, 3 sites

Crown cover avg. = 15.7%, range 2.0-35.0%, 3 sites

Dominant species (relative cover, frequency): *Acacia citriodora* (99, 33%), *Ventilago viminalis* (38, 33%), *Atalaya hemiglaucha* (25, 67%), *Sida indet.* (11, 33%), *Senna artemisioides* subsp. *oligophylla* (11, 33%)

Frequent species (cover, frequency): *Acacia tenuissima* (1, 67%), *Atalaya hemiglaucha* (1, 67%), *Acacia chisholmii* (1, 33%), *Acacia citriodora* (35, 33%), *Acacia elachantha* (33%), *Apophyllum anomalum* (33%), *Capparis lasiantha* (1, 33%), *Carissa lanceolata* (33%), *Cleome viscosa* (33%), *Eucalyptus pruinosa* subsp. *pruinosa* (33%), *Gossypium australe* (33%), *Marsdenia viridiflora* subsp. *tropica* (1, 33%), *Ptilotus calostachyus* (1, 33%), *Salsola australis* (33%), *Senna artemisioides* subsp. *oligophylla* (1, 33%), *Sida indet.* (1, 33%), *Ventilago viminalis* (1, 33%), *Waltheria indica* (1, 33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.6m, 2 sites****PFC avg. = 56.7%, range 50-60%, 3 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (60, 100%), *Digitaria brownii* (21, 33%), *Aristida ingrata* (15, 67%), *Eulalia aurea* (10, 67%), *Iseilema* indet. (10, 33%)

Frequent species (cover, frequency): **GRAMINOID**: *Triodia pungens* (37, 100%), *Aristida ingrata* (8, 67%), *Eulalia aurea* (7, 67%), *Sporobolus australasicus* (1, 67%), *Themeda triandra* (2, 67%), *Bulbostylis barbata* (1, 33%), *Cymbopogon bombycinus* (1, 33%), *Digitaria brownii* (15, 33%), *Enneapogon polypylus* (5, 33%), *Iseilema* indet. (5, 33%), *Paspalidium rarum* (1, 33%), *Schizachyrium* indet. (5, 33%), *Urochloa* indet. (33%)

**FORBS**: *Acacia* *cowleana* (1, 33%), *Boerhavia* indet. (33%), *Bonamia media* (33%), *Cassytha* indet. (1, 33%), *Euphorbia tannensis* (33%), *Heliotropium* indet. (1, 33%), *Indigofera linnaei* (33%), *Polycarphaea corymbosa* (1, 33%), *Portulaca oleracea*\* (1, 33%), *Solanum* indet. (33%)

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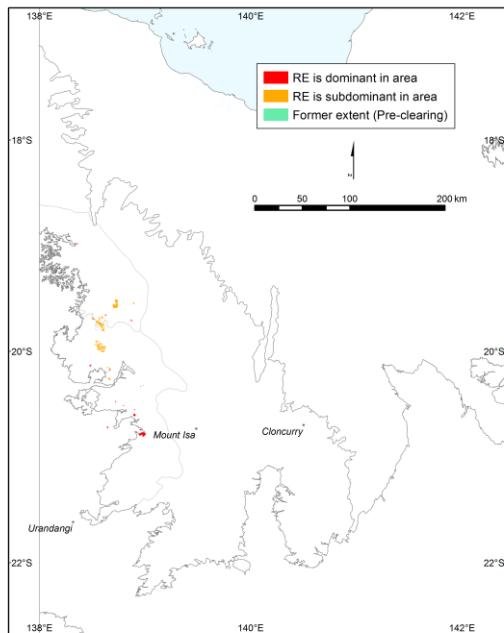
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.7.3: *Triodia pungens* hummock grassland on ferricrete and on silcrete



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 4,914 4,914 100.00%

**Species recorded:** Total: 31; woody: 9; ground: 22; Avg. spp./site: 16.5; std dev.: 0.5, 2 site(s)

**Basal area:** 0

**Structural formation:** Hummock grassland: 100%, 2 site(s)

**Representative sites:** 40873, 42143.

#### Stratum: Emergent

**Height avg. = 5.3m, range 4-6.5m, 2 sites**

**Crown cover avg. = 1.0%, range 0.0-2.0%, 2 sites**

**Dominant species (relative cover, frequency):** *Eucalyptus leucophloia* subsp. *euroa* (71, 50%), *Grevillea wickhamii* subsp. *aprifica* (25, 50%), *Dodonaea barklyana* (25, 50%), *Corymbia capricornia* (25, 50%), *Acacia retivenea* subsp. *retivenea* (25, 50%)

**Frequent species (cover, frequency):** *Acacia elachantha* (50%), *Acacia retivenea* subsp. *retivenea* (50%), *Carissa lanceolata* (50%), *Corymbia capricornia* (50%), *Dodonaea barklyana* (50%), *Eucalyptus leucophloia* subsp. *euroa* (1, 50%), *Grevillea wickhamii* subsp. *aprifica* (50%), *Senna artemisioides* subsp. *helmsii* (50%), *Senna glutinosa* subsp. *pruinosa* (50%)

#### Stratum: Ground

**Height avg. = 0.7m, range 0.7-0.75m, 2 sites**

**PFC avg. = 38.5%, range 37-40%, 2 sites**

**Dominant species (relative cover, frequency):** *Triodia pungens* (94, 100%), *Sporobolus australasicus* (3, 50%), *Enneapogon polypyllylus* (3, 50%), *Eriachne indet.* (3, 50%)

**Frequent species (cover, frequency): GRAMINOIDs:** *Triodia pungens* (36, 100%), *Bulbostylis barbata* (50%), *Enneapogon polypyllylus* (1, 50%), *Eriachne indet.* (1, 50%), *Paspalidium rarum* (50%), *Sporobolus australasicus* (1, 50%)

**FORBS:** *Sida indet.* (100%), *Euphorbia tannensis* (50%), *Evolvulus alsinoides* var. *vilosocalyx* (50%), *Goodenia vilmoriniae* (50%), *Gossypium australe* (50%), *Heliotropium cunninghamii* (50%), *Heliotropium styotrichum* (50%), *Hibiscus sturtii* (50%), *Maireana villosa* (50%), *Pterocaulon serrulatum* var. *velutinum* (50%), *Ptilotus nobilis* (50%), *Ptilotus schwartzii* (50%), *Salsola australis* (50%), *Scaevola browniana* subsp. *browniana* (50%), *Senna notabilis* (50%), *Triumfetta micracantha* (50%)

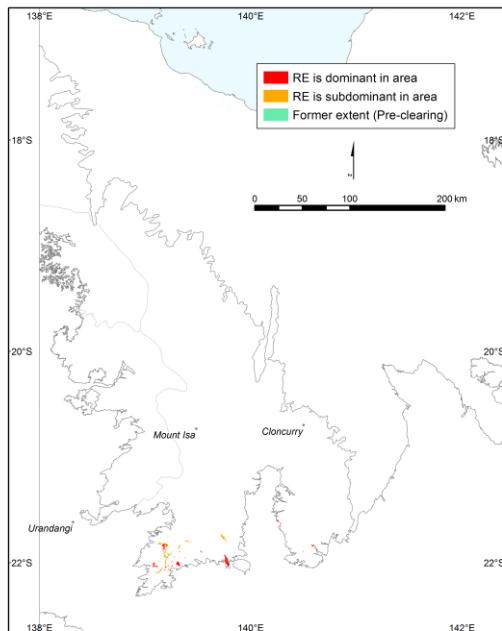
**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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### 1.7.4: Triodia brizoides and/or T. molesta hummock grassland on ferricrete and on silcrete



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 6,411 6,411 100.00%

**Species recorded:** Total: 12; woody: 8; ground: 10; Avg. spp./site: 12.0; std dev.: 0.0, 1 site(s)

**Basal area:** 0

**Structural formation:** Hummock grassland: 100%, 1 site(s)

**Representative sites:** 55654.

#### Stratum: Emergent

**Height avg. = 5.0m, 1 site**

**Crown cover avg. = 0.0%, 1 site**

*Dominant species (relative cover, frequency): Eucalyptus normantonensis (33, 100%), Eucalyptus leucophloia subsp. euroa (33, 100%), Corymbia aspera (33, 100%)*

*Frequent species (cover, frequency): Corymbia aspera (100%), Eucalyptus leucophloia subsp. euroa (100%), Eucalyptus normantonensis (100%)*

#### Stratum: Shrub 1

**Height avg. = 0.4m, 1 site**

**Crown cover avg. = 13.0%, 1 site**

*Dominant species (relative cover, frequency): Acacia chippendalei (97, 100%), Petalostylis cassioides (1, 100%), Grevillea wickhamii subsp. aprica (1, 100%), Acacia melleodora (1, 100%), Acacia acradenia (1, 100%)*

*Frequent species (cover, frequency): Acacia acradenia (100%), Acacia chippendalei (13, 100%), Acacia melleodora (100%), Grevillea wickhamii subsp. aprica (100%), Petalostylis cassioides (100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Ground**

**Height avg.** = 0.4m, 1 site

**PFC avg.** = 24.0%, 1 site

*Dominant species (relative cover, frequency): Triodia molesta (96, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Aristida contorta (100%), Bulbostylis barbata (100%), Fimbristylis dichotoma (100%), Triodia molesta (24, 100%)*

*FORBS: Cleome viscosa (100%), Heliotropium froehlichii (100%), Hibiscus indet. (100%), Ptilotus obovatus (100%), Ptilotus schwartzii (100%), Tribulopis pentandra (100%)*

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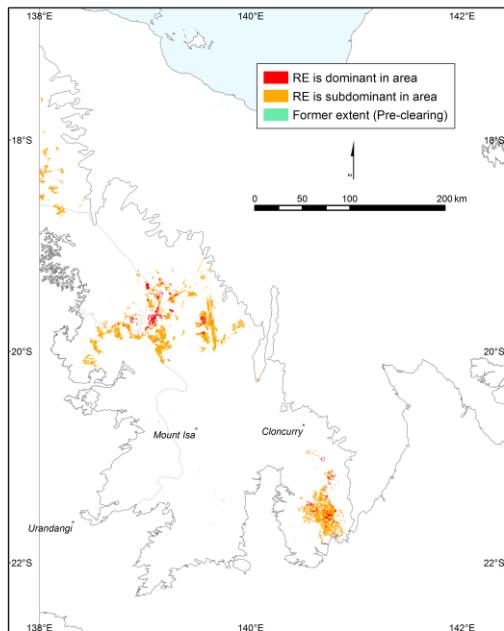
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.7.5a: Acacia shirleyi low open forest on remnant lateritic surfaces



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 61,194 61,018 99.71%

Species recorded: Total: 96; woody: 15; ground: 83; Avg. spp./site: 22.3; std dev.: 14.0, 6 site(s)

Basal area: Avg./site: 5.8 m<sup>2</sup>/ha, range: 4.3 - 7 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 5 site(s)

Structural formation: Low open-forest: 50%; woodland: 17%; open-forest: 17%; low woodland: 17%, 6 site(s)

Representative sites: 19348, 19430, 40567, 40849, 45424, 48515.

#### Stratum: Tree 1

Height avg. = 8.3m, range 6-10m, 6 sites

Crown cover avg. = 57.5%, range 28.0-70.0%, 6 sites

Dominant species (relative cover, frequency): *Acacia shirleyi* (98, 100%), *Eucalyptus leucophloia* subsp. *euroa* (2, 50%)

Frequent species (cover, frequency): *Acacia shirleyi* (56, 100%), *Eucalyptus leucophloia* subsp. *euroa* (1, 50%), *Alphitonia pomaderroides* (1, 17%), *Amyema preissii* (1, 17%), *Atalaya hemiglaauca* (17%), *Corymbia capricornia* (1, 17%), *Santalum lanceolatum* (17%)

#### Stratum: Tree 2

Height avg. = 4.2m, range 2.5-5m, 3 sites

Crown cover avg. = 14.0%, range 6.0-26.0%, 3 sites

Dominant species (relative cover, frequency): *Acacia shirleyi* (100, 33%)

Frequent species (cover, frequency): *Acacia shirleyi* (18, 33%), *Eucalyptus leucophloia* subsp. *euroa* (6, 17%), *Terminalia aridicola* (17%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

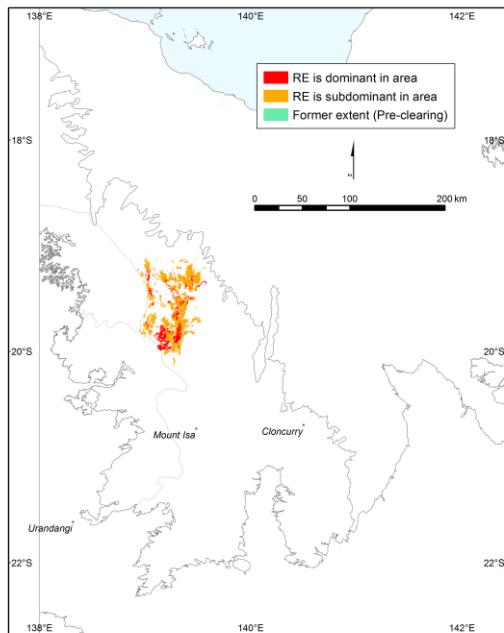
**Stratum: Shrub 1****Height avg. = 1.7m, range 0.5-3.5m, 5 sites****Crown cover avg. = 2.3%, range 0.0-5.0%, 5 sites***Dominant species (relative cover, frequency): Acacia shirleyi (76, 50%)**Frequent species (cover, frequency): Acacia shirleyi (3, 50%), Acacia holosericea (17%), Atalaya hemiglaucha (17%), Boronia lanceolata (17%), Capparis lasiantha (1, 17%), Eremophila latrobei subsp. latrobei (17%), Flueggea virosa subsp. melanthesoides (17%), Livistona inermis (17%), Solanum echinatum (17%)***Stratum: Shrub 2****Height avg. = 1.5m, 1 site****Crown cover avg. = 1.0%, 1 site***Frequent species (cover, frequency): Acacia shirleyi (1, 17%)***Stratum: Ground****Height avg. = 0.4m, range 0.2-0.5m, 6 sites****PFC avg. = 21.7%, range 1-43%, 6 sites***Dominant species (relative cover, frequency): Mnesithea formosa (20, 50%), Paspalidium rarum (16, 50%), Triodia longiceps (16, 33%), Digitaria brownii (13, 50%), Maireana villosa (11, 50%)**Frequent species (cover, frequency): GRAMINOIDs: Bulbostylis barbata (50%), Digitaria brownii (1, 50%), Mnesithea formosa (8, 50%), Paspalidium rarum (2, 50%), Aristida pruinosa (33%), Cymbopogon bombycinus (1, 33%), Enneapogon lindleyanus (2, 33%), Eriachne mucronata (2, 33%), Eriachne sp. (Dugald River B.K.Simon+ 3007) (33%), Eulalia aurea (1, 33%), Triodia longiceps (1, 33%), Aristida holathera var. holathera (17%), Aristida nitidula (1, 17%), Cymbopogon ambiguus (17%), Digitaria breviglumis (8, 17%), Digitaria ramularis (3, 17%), Eriachne ciliata (17%), Eriachne mucronata forma (Burnham R.W.Purdie 1370) (1, 17%), Panicum decompositum (17%), Panicum indet. (4, 17%), Panicum robustum (17%), Perotis rara (17%), Scleria brownii (17%), Scleria mackaviensis (1, 17%), Triodia bitextura (15, 17%), Triodia molesta (22, 17%), Triodia pungens (17%), Urochloa holosericea subsp. velutina (5, 17%), Yakirra australiensis (17%)**FORBS: Bidens bipinnata\* (50%), Maireana villosa (50%), Alternanthera sp. (Mt Isa R.L.Speccht+ 49) (33%), Cleome viscosa (33%), Evolvulus alsinoides var. decumbens (33%), Polycarphaea corymbosa (33%), Pterocaulon serrulatum (33%), Ptilotus fusiformis (33%), Sida fibulifera (2, 33%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (1, 33%), Tephrosia indet. (33%), Acacia chippendalei (17%), Acacia shirleyi (8, 17%), Achyranthes aspera (17%), Bonamia pannosa (17%), Breynia oblongifolia (17%), Cheilanthes brownii (17%), Cheilanthes nitida (17%), Corchorus sericeus subsp. densiflorus (3, 17%), Cucumis argenteus (17%), Cucumis melo (17%), Cullen plumosum (17%), Cyanthillium cinereum (17%), Cynanchum viminale subsp. australe (17%), Euphorbia indet. (17%), Euphorbia trigonosperma (17%), Galactia tenuiflora (17%), Hibiscus burtonii (17%), Hibiscus indet. (17%), Hibiscus sturtii (17%), Hybanthus aurantiacus (2, 17%), Hybanthus indet. (17%), Indigofera indet. (17%), Jacquemontia sp. (Fairview R.W.Johnson 4026) (17%), Maireana georgei (1, 17%), Melhania oblongifolia (3, 17%), Polycarpon indet. (17%), Polygala pterocarpa (17%), Portulaca bicolor (17%), Portulaca indet. (17%), Ptilotus nobilis subsp. nobilis (17%), Ptilotus schwartzii (17%), Rostellularia adscendens (17%), Solanum echinatum (17%), Solanum ellipticum (17%), Solanum senticosum (17%), Spermacoce indet. (1, 17%), Sphaeranthus indet. (17%), Streptoglossa decurrens (17%), Tribulopsis pentandra (17%), Tribulus indet. (17%), Waltheria indica (17%), Zornia muriculata subsp. angustata (17%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.7.5b: Acacia shirleyi on metamorphic hills with ferricrete remnants



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 49,569      49,363      99.58%

**Species recorded:** Total: 34; woody: 3; ground: 31; Avg. spp./site: 34.0; std dev.: 0.0, 1 site(s)

**Basal area:** Avg./site: 4.8 m<sup>2</sup>/ha, range: 4.8 - 5 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

**Structural formation:** Low open-forest: 100%, 1 site(s)

**Representative sites:** 19427.

#### Stratum: Tree 1

**Height avg. = 7.5m, 1 site**

**Crown cover avg. = 54.0%, 1 site**

*Dominant species (relative cover, frequency): Acacia shirleyi (93, 100%), Eucalyptus leucophloia subsp. euroa (7, 100%)*

*Frequent species (cover, frequency): Acacia shirleyi (50, 100%), Eucalyptus leucophloia subsp. euroa (4, 100%)*

#### Stratum: Shrub 1

**Height avg. = 1.5m, 1 site**

**Crown cover avg. = 0.0%, 1 site**

*Dominant species (relative cover, frequency): Atalaya hemiglaucha (100, 100%)*

*Frequent species (cover, frequency): Atalaya hemiglaucha (100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.3m, 1 site****PFC avg. = 28.0%, 1 site**

Dominant species (relative cover, frequency): *Enneapogon lindleyanus* (32, 100%), *Eriachne mucronata* (22, 100%), *Paspalidium rarum* (22, 100%), *Enneapogon purpurascens* (3, 100%), *Digitaria brownii* (3, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Bulbostylis barbata* (100%), *Digitaria brownii* (1, 100%), *Digitaria nematostachya* (100%), *Enneapogon lindleyanus* (10, 100%), *Enneapogon purpurascens* (1, 100%), *Eriachne mucronata* (7, 100%), *Eriachne sp.* (Dugald River B.K.Simon+ 3007) (100%), *Eulalia aurea* (100%), *Mnesithea formosa* (100%), *Panicum decompositum* (100%), *Paspalidium rarum* (7, 100%)

FORBS: *Abutilon leucopetalum* (100%), *Achyranthes aspera* (100%), *Alternanthera sp.* (Mt Isa R.L.Speccht+ 49) (100%), *Amaranthus interruptus* (1, 100%), *Boerhavia indet.* (1, 100%), *Euphorbia indet.* (100%), *Evolvulus alsinoides var. decumbens* (100%), *Evolvulus alsinoides var. villosocalyx* (100%), *Galactia tenuiflora var. macrantha* (1, 100%), *Hibiscus sturtii var. campylochlamys* (100%), *Hybanthus indet.* (100%), *Indigofera hirsuta* (100%), *Indigofera queenslandica* (100%), *Jacquemontia paniculata var. tomentosa* (100%), *Melhania oblongifolia* (100%), *Pterocaulon serrulatum* (100%), *Sida sp.* (Aramac E.J.Thompson+ JER192) (100%), *Tephrosia delestangii* (100%), *Tephrosia sp.* (Magazine Hill P.Jones 365) (100%), *Tribulus indet.* (100%)

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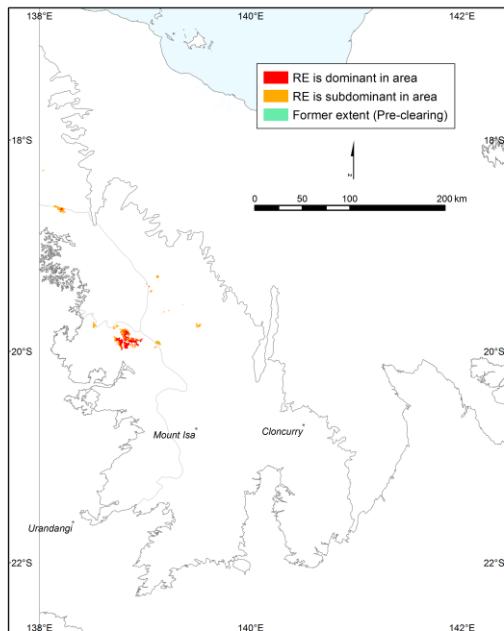
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

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12/04/2019

### 1.7.6: Acacia shirleyi low woodland on red soil plains overlying ferricrete



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 12,372 12,321 99.59%

**Species recorded:** Total: 41; woody: 5; ground: 36; Avg. spp./site: 23.5; std dev.: 9.5, 2 site(s)

**Basal area:** Avg./site: 4.9 m<sup>2</sup>/ha, range: 3.8 - 6 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 2 site(s)

**Structural formation:** Woodland: 50%; low woodland: 50%, 2 site(s)

**Representative sites:** 19429, 39444.

#### Stratum: Tree 1

**Height avg. = 9.3m, range 6.5-12m, 2 sites**

**Crown cover avg. = 40.5%, range 35.0-46.0%, 2 sites**

*Dominant species (relative cover, frequency): Acacia shirleyi (100, 100%)*

*Frequent species (cover, frequency): Acacia shirleyi (41, 100%), Eucalyptus pruinosa subsp. pruinosa (50%)*

#### Stratum: Tree 2

**Height avg. = 6.0m, 1 site**

**Crown cover avg. = 16.0%, 1 site**

*Dominant species (relative cover, frequency): Acacia shirleyi (99, 50%), Eucalyptus leucophloia subsp. euroa (1, 50%)*

*Frequent species (cover, frequency): Acacia shirleyi (16, 50%), Eucalyptus leucophloia subsp. euroa (50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

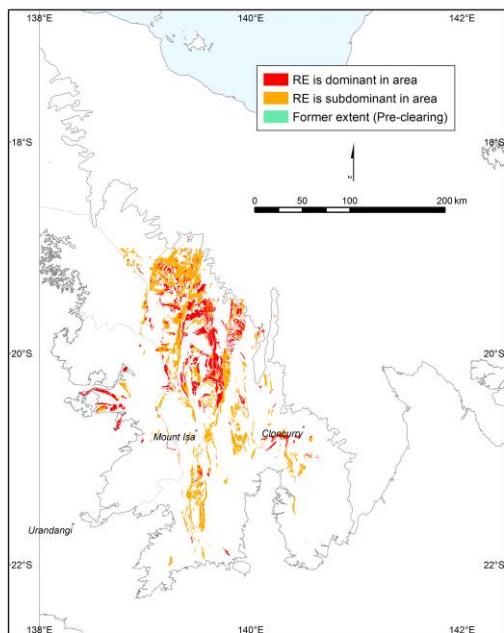
**Stratum: Shrub 1****Height avg. = 2.6m, range 1.6-3.5m, 2 sites****Crown cover avg. = 15.0%, range 10.0-20.0%, 2 sites***Dominant species (relative cover, frequency): Acacia shirleyi (100, 100%), Flueggea virosa subsp. melanthesoides (1, 50%)**Frequent species (cover, frequency): Acacia shirleyi (15, 100%), Flueggea virosa subsp. melanthesoides (50%)***Stratum: Shrub 2****Height avg. = 0.3m, 1 site****Crown cover avg. = 5.0%, 1 site***Dominant species (relative cover, frequency): Acacia shirleyi (98, 50%), Capparis lasiantha (2, 50%)**Frequent species (cover, frequency): Acacia shirleyi (5, 50%), Capparis lasiantha (50%)***Stratum: Ground****Height avg. = 0.4m, range 0.25-0.5m, 2 sites****PFC avg. = 23.0%, range 8-38%, 2 sites***Dominant species (relative cover, frequency): Chrysopogon fallax (37, 100%), Triodia bitextura (25, 50%), Digitaria brownii (13, 100%), Paspalidium rarum (13, 50%), Spermacoce brachystema (13, 50%)**Frequent species (cover, frequency): GRAMINOIDs: Aristida inaequiglumis (1, 100%), Chrysopogon fallax (4, 100%), Digitaria brownii (2, 100%), Eulalia aurea (100%), Aristida calycina var. calycina (50%), Aristida holathera var. holathera (1, 50%), Aristida pruinosa (50%), Bothriochloa erwartiana (2, 50%), Bulbostylis barbata (50%), Cymbopogon bombycinus (50%), Enneapogon polypylus (2, 50%), Eragrostis confertiflora (50%), Eragrostis cumingii (50%), Eriachne armitii (3, 50%), Eriachne mucronata (1, 50%), Panicum laevinode (50%), Paraneurachne muelleri (50%), Paspalidium rarum (5, 50%), Perotis rara (3, 50%), Schizachyrium fragile (50%), Sporobolus australasicus (50%), Themeda triandra (1, 50%), Triodia bitextura (10, 50%)**FORBS: Sida fibulifera (100%), Alternanthera sp. (Mt Isa R.L.Specht+ 49) (50%), Euphorbia crassimarginata (50%), Hibiscus sturtii (50%), Hybanthus aurantiacus (50%), Oldenlandia mitrasacmoides subsp. mitrasacmoides (50%), Polycarpea corymbosa (50%), Portulaca filifolia (50%), Ptilotus fusiformis (1, 50%), Senna notabilis (50%), Sida brachypoda (50%), Spermacoce brachystema (5, 50%), Tinospora smilacina (50%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.7.7a: *Corymbia capricornia* +/- *Eucalyptus leucophloia* low open woodland on silcrete



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 284,133 283,839 99.90%

Species recorded: Total: 174; woody: 55; ground: 134; Avg. spp./site: 21.1; std dev.: 9.0, 17 site(s)

Basal area: Avg./site: 2.4 m<sup>2</sup>/ha, range: 0.3 - 12 m<sup>2</sup>/ha, std. deviation: 3 m<sup>2</sup>/ha, 15 site(s)

Structural formation: Low open-woodland: 94%; low woodland: 6%, 17 site(s)

Representative sites: 19313, 19326, 19329, 19335, 19338, 19394, 19405, 19406, 19409, 19437, 19492, 19507, 23412, 24265, 42128, 42178, 42189.

#### Stratum: Emergent

Height avg. = 5.0m, 1 site

Crown cover avg. = 1.0%, 1 site

Frequent species (cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (1, 6%)

#### Stratum: Tree 1

Height avg. = 5.2m, range 3-9m, 16 sites

Crown cover avg. = 8.8%, range 3.0-23.0%, 17 sites

Dominant species (relative cover, frequency): *Corymbia capricornia* (89, 100%), *Eucalyptus leucophloia* subsp. *euroa* (3, 35%)

Frequent species (cover, frequency): *Corymbia capricornia* (8, 100%), *Eucalyptus leucophloia* subsp. *euroa* (35%), *Terminalia aridicola* (18%), *Eucalyptus herbertiana* (3, 12%), *Alphitonia excelsa* (2, 6%), *Atalaya hemiglaqua* (1, 6%), *Eucalyptus leucophylla* (5, 6%), *Eucalyptus melanophloia* (6%), *Terminalia canescens* (1, 6%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Tree 2****Height avg. = 3.1m, range 1.8-4.5m, 3 sites****Crown cover avg. = 1.3%, range 1.0-2.0%, 3 sites***Frequent species (cover, frequency): Terminalia aridicola (1, 12%), Corymbia capricornia (2, 6%)***Stratum: Shrub 1****Height avg. = 1.9m, range 0.8-3.5m, 17 sites****Crown cover avg. = 10.3%, range 0.0-35.0%, 17 sites***Dominant species (relative cover, frequency): Acacia monticola (70, 29%), Acacia orthocarpa (65, 24%), Grevillea wickhamii subsp. aprica (51, 53%), Acacia retinenea subsp. retinenea (12, 41%)**Frequent species (cover, frequency): Grevillea wickhamii subsp. aprica (3, 53%), Acacia retinenea subsp. retinenea (2, 41%), Acacia monticola (10, 29%), Acacia orthocarpa (11, 24%), Cajanus indet. (8, 18%), Abutilon indet. (1, 12%), Acacia indet. (3, 12%), Corymbia capricornia (12%), Dodonaea indet. (1, 12%), Lysiana spathulata subsp. spathulata (12%), Acacia acradenia (10, 6%), Acacia galiooides (1, 6%), Acacia gonoclada (6%), Acacia lazaridis (6%), Atalaya hemiglaucha (6%), Dodonaea barklyana (6%), Eremophila longifolia (6%), Grevillea heliosperma (6%), Hibiscus sturtii (6%), Hibiscus sturtii var. campylochlamys (6%), Jacksonia vernicosa (5, 6%), Senna notabilis (6%), Senna venusta (1, 6%), Templetonia hookeri (6%), Tephrosia conspicua (6%), Tephrosia indet. (6%), Terminalia aridicola (6%), Triumfetta plumigera (6%)***Stratum: Shrub 2****Height avg. = 1.2m, range 0.3-2m, 10 sites****Crown cover avg. = 9.7%, range 0.0-50.0%, 10 sites***Frequent species (cover, frequency): Dodonaea barklyana (1, 18%), Acacia asperulacea (2, 12%), Acacia chippendalei (26, 12%), Acacia retinenea subsp. retinenea (1, 12%), Triumfetta micracantha (1, 12%), Acacia chisholmii (5, 6%), Acacia drepanocarpa subsp. latifolia (15, 6%), Acacia tenuissima (2, 6%), Corymbia capricornia (6%), Dodonaea viscosa subsp. angustissima (1, 6%), Eremophila latrobei (6%), Eremophila longifolia (6%), Euphorbia tannensis subsp. eremophila (6%), Grevillea dryandri subsp. dryandri (6%), Heliotropium ballii (6%), Hibiscus meraukensis (6%), Hybanthus aurantiacus (6%), Indigofera pratensis (2, 6%), Jacksonia indet. (6%), Petalostigma banksii (3, 6%), Phyllanthus fuernrohrii (6%), Senna glutinosa subsp. pruinosa (6%), Senna notabilis (6%), Sida indet. (1, 6%), Tephrosia conspicua (2, 6%), Tephrosia eriocarpa (6%), Triumfetta pannosa (6%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.5m, range 0.25-1.2m, 17 sites****PFC avg. = 47.1%, range 17-90%, 17 sites**

*Dominant species (relative cover, frequency): Triodia molesta (71, 35%), Triodia pungens (64, 53%), Cymbopogon bombycinus (4, 29%), Eriachne ciliata (4, 24%), Aristida holathera var. holathera (4, 24%)*

*Frequent species (cover, frequency): GRAMINOIDs: Triodia pungens (31, 53%), Triodia molesta (32, 35%), Cymbopogon bombycinus (1, 29%), Enneapogon lindleyanus (1, 29%), Aristida holathera var. holathera (2, 24%), Eriachne ciliata (1, 24%), Eriachne mucronata (1, 24%), Cymbopogon ambiguus (1, 18%), Triodia bitextura (8, 18%), Bulbostylis barbata (12%), Enneapogon polyphyllus (1, 12%), Fimbristylis bisumbellata (12%), Fimbristylis indet. (5, 12%), Fimbristylis macrantha (12%), Sarga plumosum (35, 12%), Schizachyrium fragile (16, 12%), Themeda triandra (12%), Triodia burbridgeana (43, 12%), Aristida inaequiglumis (6%), Aristida pruinosa (2, 6%), Cenchrus ciliaris\* (8, 6%), Cymbopogon indet. (6%), Cymbopogon obtectus (6%), Cyperus microcephalus subsp. microcephalus (6%), Cyperus microcephalus subsp. saxicola (6%), Digitaria brownii (6%), Digitaria gibbosa (3, 6%), Eriachne melicacea (6%), Eriachne mucronata forma (Burnham R.W.Purdie 1370) (2, 6%), Eriachne obtusa (1, 6%), Eulalia aurea (2, 6%), Mnesithea formosa (1, 6%), Sarga timorense (20, 6%), Schizachyrium indet. (1, 6%), Schizachyrium perplexum (3, 6%), Setaria surgens (6%), Triodia longiceps (1, 6%), Tripogon loliiformis (6%)*

*FORBS: Corchorus sidoides (29%), Evolvulus alsinoides var. decumbens (29%), Hibiscus sturtii (29%), Cleome viscosa (1, 24%), Heliotropium ballii (24%), Pterocaulon serrulatum (24%), Spermacoce indet. (24%), Tephrosia indet. (24%), Triumfetta indet. (1, 24%), Acacia chippendalei (1, 18%), Cheilanthes indet. (18%), Euphorbia tannensis (18%), Heliotropium tenuifolium (18%), Hybanthus indet. (18%), Phyllanthus indet. (18%), Ptilotus fusiformis (18%), Sida indet. (18%), Waltheria indica (18%), Cassytha indet. (15, 12%), Corymbia aspera (12%), Galactia indet. (12%), Galactia tenuiflora forma sericea (12%), Gossypium australe (12%), Grevillea dryandri subsp. dryandri (12%), Indigofera indet. (2, 12%), Melhania oblongifolia (12%), Polycarpaea corymbosa (12%), Solanum echinatum (12%), Solanum succosum (12%), Tephrosia lasiochlaena (3, 12%), Acacia asperulacea (2, 6%), Acacia retivenea subsp. retivenea (2, 6%), Achyranthes aspera (6%), Alternanthera indet. (6%), Alternanthera nana (6%), Bidens bipinnata\* (6%), Bidens pilosa\* (6%), Boerhavia pubescens (6%), Bonamia media (6%), Buchnera linearis (6%), Buchnera ramosissima (6%), Cheilanthes brownii (6%), Commelina ensifolia (6%), Corchorus sericeus (6%), Crotalaria indet. (6%), Crotalaria medicaginea (6%), Crotalaria novae-hollandiae (6%), Crotalaria novae-hollandiae subsp. novae-hollandiae (6%), Euphorbia mitchelliana var. filipes (6%), Euphorbia schultzii (6%), Euphorbia tannensis subsp. eremophila (6%), Euphorbiaceae indet. (6%), Evolvulus alsinoides var. villosocalyx (6%), Goodenia indet. (6%), Goodenia ramelii (6%), Hibiscus indet. (6%), Hibiscus meraukensis (6%), Hibiscus sturtii var. campylochlamys (6%), Hibiscus sturtii var. grandiflorus (6%), Hybanthus aurantiacus (15, 6%), Indigofera colutea (1, 6%), Indigofera linnaei (6%), Jacksonia vernicosa (6%), Marsdenia australis (6%), Mitrasacme nudicaulis var. nudicaulis (6%), Peripleura indet. (6%), Peripleura virgata (6%), Phyllanthus carpentariae (6%), Phyllanthus maderaspatensis (6%), Phyllanthus virgatus (6%), Pluchea dentex (6%), Polycarpaea spirostylis (6%), Polymeria indet. (6%), Ptilotus obovatus (6%), Ptilotus polystachyus (6%), Ptilotus schwartzii (6%), Rostellularia adscendens (6%), Senna notabilis (6%), Sida cordifolia\* (6%), Sida rohlenae subsp. rohlenae (6%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (6%), Solanum ellipticum (6%), Solanum indet. (6%), Solanum quadriloculatum (6%), Spermacoce auriculata (1, 6%), Spermacoce stenophylla (6%), Stenodia lythrifolia (6%), Tephrosia sp. (Mt Isa P.L.Harris 277) (6%), Tephrosia supina (6%), Trichodesma zeylanicum (6%), Triumfetta plumigera (6%), Triumfetta rupestris (1, 6%), Urena indet. (6%), Zornia indet. (6%)*

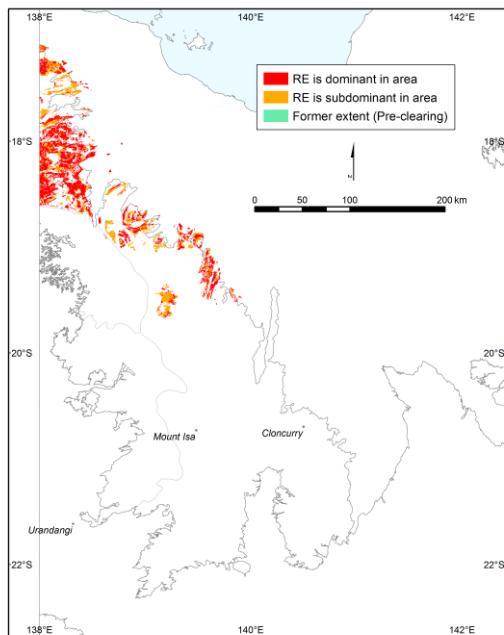
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.7.7b: *Corymbia capricornia* and/or *Eucalyptus miniata* low open woodland on silcrete and ferricrete



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 290,839 290,686 99.95%

Species\_recorded: Total: 290; woody: 100; ground: 230; Avg. spp./site: 30.2; std dev.: 13.0, 25 site(s)

Basal area: Avg./site: 2.2 m<sup>2</sup>/ha, range: 0.8 - 5 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 23 site(s)

Structural formation: Low open-woodland: 32%; woodland: 24%; low woodland: 24%; open-woodland: 20%, 25 site(s)

Representative\_sites: 19434, 23503, 34326, 34346, 35105, 40264, 40304, 40325, 40344, 40534, 40537, 40544, 40545, 40573, 40744, 42855, 42856, 42875, 43056, 43057, 43215, 48094, 48514, 51615, 60756.

#### Stratum: Tree 1

Height avg. = 9.6m, range 6-15m, 25 sites

Crown cover avg. = 26.2%, range 8.0-48.0%, 25 sites

Dominant species (relative cover, frequency): *Corymbia capricornia* (61, 92%), *Eucalyptus miniata* (56, 52%), *Corymbia ferruginea* subsp. *ferruginea* (44, 24%)

Frequent species (cover, frequency): *Corymbia capricornia* (13, 92%), *Eucalyptus miniata* (18, 52%), *Corymbia ferruginea* subsp. *ferruginea* (14, 24%), *Erythrophleum chlorostachys* (8, 8%), *Eucalyptus leucophloia* subsp. *euroa* (1, 8%), *Melaleuca viridiiflora* (5, 8%), *Acacia platycarpa* (1, 4%), *Corymbia polycarpa* (4%), *Eucalyptus tetrodonta* (12, 4%), *Grevillea pteridifolia* (4%), *Livistona inermis* (4%), *Terminalia canescens* (1, 4%)

#### Stratum: Tree 2

Height avg. = 5.2m, range 3-8m, 10 sites

Crown cover avg. = 2.6%, range 0.0-12.0%, 10 sites

Frequent species (cover, frequency): *Corymbia capricornia* (1, 20%), *Eucalyptus miniata* (2, 12%), *Terminalia canescens* (12%), *Erythrophleum chlorostachys* (8%), *Owenia vernicosa* (8%), *Acacia hyaloneura* (1, 4%), *Alphitonia excelsa* (4%), *Corymbia ferruginea* subsp. *ferruginea* (9, 4%), *Eucalyptus herbertiana* (2, 4%), *Eucalyptus leucophloia* subsp. *euroa* (5, 4%), *Eucalyptus tetrodonta* (1, 4%), *Gardenia ewartii* subsp. *ewartii* (1, 4%), *Gardenia pyriformis* subsp. *orientalis* (4%), *Melaleuca viridiiflora* (4%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Shrub 1****Height avg. = 1.8m, range 0.4-4.5m, 25 sites****Crown cover avg. = 7.8%, range 0.0-80.0%, 25 sites**

*Dominant species (relative cover, frequency): Petalostigma quadriloculare (56, 24%), Corymbia capricornia (21, 48%), Terminalia canescens (19, 64%), Acacia hammondii (17, 24%), Grevillea dryandri subsp. dryandri (7, 28%)*

*Frequent species (cover, frequency): Terminalia canescens (1, 64%), Corymbia capricornia (1, 48%), Grevillea dryandri subsp. dryandri (28%), Acacia hammondii (1, 24%), Petalostigma quadriloculare (5, 24%), Bossiaea bossiaeoides (20%), Erythrophleum chlorostachys (20%), Acacia monticola (2, 16%), Dodonaea hispidula var. hispidula (16%), Grevillea refracta subsp. refracta (16%), Grevillea wickhamii subsp. aprica (1, 16%), Petalostigma banksii (16%), Wrightia saligna (16%), Acacia asperulacea (1, 12%), Calytrix exstipulata (12%), Corymbia ferruginea subsp. ferruginea (1, 12%), Eucalyptus miniata (1, 12%), Indigofera pratensis (12%), Acacia alleniana (8%), Acacia gonoclada (1, 8%), Acacia holosericea (8%), Acacia hyaloneura (11, 8%), Acacia retivenea subsp. retivenea (8%), Dodonaea lanceolata (8%), Sida macropoda (8%), Tephrosia phaeosperma var. (Westmoreland S.Melville 967) (8%), Tephrosia sp. (Barkly Downs S.L.Everist 3384) (8%), Tephrosia sp. (Mt Isa P.L.Harris 277) (8%), Triumfetta plumigera (8%), Acacia ancistrocarpa (4%), Acacia calligera (80, 4%), Acacia chippendalei (4%), Acacia dimidiata (4%), Acacia drepanocarpa subsp. drepanocarpa (4%), Acacia drepanocarpa subsp. latifolia (1, 4%), Acacia indet. (4%), Acacia monticola x A. phlebocarpa (4%), Acacia platycarpa (4%), Acacia torulosa (4%), Cajanus acutifolius (4%), Chamaecrista grisea (4%), Clerodendrum floribundum (4%), Corchorus sericeus (4%), Corchorus sericeus subsp. densiflorus (4%), Dendrophthoe glabrescens (4%), Dodonaea barklyana (4%), Erythroxylum australe (4%), Erythroxylum ellipticum (4%), Eucalyptus leucophloia subsp. euroa (2, 4%), Eucalyptus tetrodonta (8, 4%), Grevillea heliosperma (4%), Grevillea mimosoides (4%), Grevillea parallela (4%), Grevillea pteridifolia (4%), Hibiscus brachychlaenus (4%), Indigofera indet. (4%), Jacksonia odontoclada (4, 4%), Jacksonia ramosissima (2, 4%), Melaleuca viridiflora (2, 4%), Santalum lanceolatum (4%), Scaevola glutinosa (4%), Scaevola revoluta var. revoluta (4%), Tephrosia coriacea (4%), Tephrosia delestangii (4%), Tephrosia indet. (4%), Tephrosia virens (4%), Triumfetta mellina (4%), Triumfetta micracantha (4%), Waltheria indica (4%)*

**Stratum: Shrub 2****Height avg. = 0.9m, range 0.5-1.6m, 14 sites****Crown cover avg. = 20.1%, range 1.0-81.0%, 14 sites**

*Dominant species (relative cover, frequency): Petalostigma quadriloculare (47, 40%), Acacia calligera (38, 24%), Grevillea dryandri subsp. dryandri (12, 44%)*

*Frequent species (cover, frequency): Yakkira australiensis var. australiensis (4%), Grevillea dryandri subsp. dryandri (2, 44%), Petalostigma quadriloculare (5, 40%), Acacia calligera (15, 24%), Acacia hammondii (1, 20%), Dodonaea hispidula var. hispidula (1, 20%), Terminalia canescens (20%), Dodonaea barklyana (16%), Corchorus sericeus (12%), Sida hackettiana (1, 12%), Sida macropoda (12%), Acacia asperulacea (1, 8%), Acacia holosericea (8%), Acacia laccata (8%), Acacia monticola (8%), Corymbia ferruginea subsp. ferruginea (8%), Jacksonia lateritica (15, 8%), Owenia vernicosa (8%), Acacia galioides (4%), Acacia hyaloneura (4%), Acacia phlebocarpa (1, 4%), Acacia platycarpa (4%), Acacia retivenea subsp. retivenea (60, 4%), Acacia torulosa (4%), Boronia lanuginosa (4%), Breynea oblongifolia (4%), Calytrix brownii (4%), Cassytha filiformis (4%), Clerodendrum floribundum (4%), Corchorus sericeus subsp. sericeus (1, 4%), Corymbia capricornia (4%), Dicarpidium monoicum (4%), Dodonaea lanceolata (4%), Dodonaea physocarpa (4%), Eucalyptus miniata (4%), Grevillea wickhamii subsp. aprica (1, 4%), Heliotropium delestangii (1, 4%), Hibbertia lepidota (4%), Petalostigma banksii (4%), Santalum lanceolatum (4%), Scaevola browniana subsp. browniana (2, 4%), Scaevola indet. (4%), Scaevola ovalifolia (3, 4%), Senna oligoclada (4%), Sida indet. (4%), Sida sp. (Murray Springs R.W.Johnson+ MRS919) (4%), Stenocarpus cunninghamii (4%), Stylosanthes hamata\* (4%), Tephrosia conspicua (4%), Tephrosia indet. (4%), Tephrosia phaeosperma var. (Westmoreland S.Melville 967) (4%), Tephrosia sp. (Barkly Downs S.L.Everist 3384) (4%), Triumfetta mellina (4%), Triumfetta micracantha (4%), Waltheria indica (4%)*

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.4m, range 0.2-0.9m, 25 sites****PFC avg. = 35.6%, range 7-74%, 25 sites**

*Dominant species (relative cover, frequency): Triodia pungens (76, 24%), Triodia bitextura (57, 80%), Schizachyrium fragile (18, 56%), Mnesithea formosa (8, 44%), Aristida holathera var. holathera (8, 36%)*

*Frequent species (cover, frequency): GRAMINOIDs: Triodia bitextura (22, 80%), Schizachyrium fragile (6, 56%), Eriachne sp. (Dugald River B.K.Simon + 3007) (48%), Mnesithea formosa (2, 44%), Eriachne melicacea (40%), Aristida holathera var. holathera (2, 36%), Bulbostylis barbata (1, 32%), Eriachne ciliata (2, 32%), Triodia pungens (32, 24%), Eriachne mucronata (1, 20%), Eulalia aurea (5, 20%), Setaria surgens (1, 20%), Aristida hygrometrica (16%), Fimbristylis squarrulosa (12%), Schizachyrium perplexum (1, 12%), Thaumastochloa major (2, 12%), Yakirra australiensis var. intermedia (12%), Abildgaardia ovata (8%), Aristida exserta (1, 8%), Aristida ingrata (8%), Chrysopogon fallax (3, 8%), Cymbopogon ambiguus (8%), Cyperus indet. (8%), Digitaria brownii (1, 8%), Digitaria gibbosa (8%), Eragrostis cumingii (8%), Fimbristylis leucocolea (8%), Scleria brownii (8%), Thaumastochloa pubescens (1, 8%), Yakirra australiensis var. australiensis (8%)*

*FORBS: Polycarpa corymbosa (40%), Phyllanthus virgatus (28%), Acacia asperulacea (1, 24%), Crotalaria medicaginea (24%), Mitrasacme connata (24%), Crotalaria novae-hollandiae (20%), Evolvulus alsinoides (20%), Goodenia odonellii (20%), Hybanthus aurantiacus (20%), Indigofera linifolia (20%), Oldenlandia mitrasacmoides (20%), Spermacoce latimarginata (20%), Stackhousia intermedia (20%), Tephrosia indet. (20%), Cassytha filiformis (16%), Zornia muriculata (16%), Bonamia media (12%), Breynia oblongifolia (12%), Buchnera linearis (12%), Cheilanthes brownii (12%), Heliotropium ballii (1, 12%), Hibiscus burtonii (12%), Indigofera haplophylla (12%), Microstachys chamaelea (12%), Polygala diffcilis (12%), Polygala indet. (12%), Portulaca bicolor (12%), Spermacoce auriculata (12%), Tephrosia filipes (12%), Vigna lanceolata (12%), Zornia muriculata subsp. angustata (12%), Acacia chippendalei (8%), Acacia galioides (8%), Blumea diffusa (8%), Buchnera indet. (8%), Cleome viscosa (8%), Corchorus sericeus (8%), Crotalaria montana (8%), Desmodium filiforme (8%), Euphorbia mitchelliana (8%), Euphorbia tannensis (8%), Glycine tomentella (8%), Gomphrena lanata (8%), Heliotropium leptaleum (8%), Heliotropium peninsulare (8%), Hibiscus sturtii (8%), Indigofera pratensis (8%), Lechenaultia filiformis (8%), Murdannia graminea (8%), Oldenlandia galioides (8%), Oldenlandia mitrasacmoides subsp. mitrasacmoides (8%), Phyllanthus indet. (8%), Polygala crassitesta (8%), Polygala exsquarrosa (8%), Polygala longifolia (8%), Ptilotus corymbosus (8%), Sida fibulifera (8%), Solanum echinatum (8%), Trianthema rhynchocalyptra (8%), Uraria lagopodioides (8%), Waltheria indica (8%), Wrightia saligna (8%), Zornia prostrata (8%), Zornia prostrata var. prostrata (8%)*

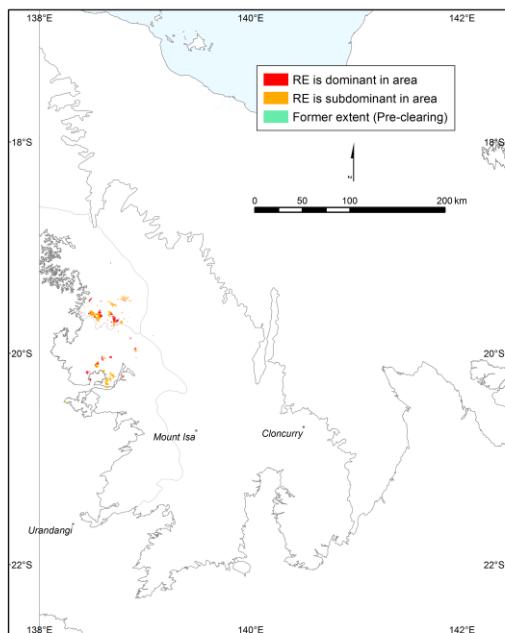
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*Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).*

*Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.*

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.1: *Astrebla* spp. grassland on shallow clays on limestones



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 10,281 10,260 99.80%

**Species recorded:** Total: 17; woody: 0; ground: 17; Avg. spp./site: 17.0; std dev.: 0.0, 1 site(s)

**Basal area:** 0

**Structural formation:** Closed-tussock grassland: 100%, 1 site(s)

**Representative sites:** 42150.

#### Stratum: Ground

**Height avg. = 0.5m, 1 site**

**PFC avg. = 83.0%, 1 site**

*Dominant species (relative cover, frequency): Eulalia aurea (31, 100%), Dichanthium sericeum subsp. polystachyum (18, 100%), Themeda avenacea (12, 100%), Astrebla pectinata (6, 100%), Astrebla squarrosa (6, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Aristida latifolia (5, 100%), Astrebla pectinata (5, 100%), Astrebla squarrosa (5, 100%), Bothriochloa erartiana (5, 100%), Dichanthium sericeum subsp. polystachyum (15, 100%), Eulalia aurea (25, 100%), Iseilema convexus (2, 100%), Iseilema vaginiflorum (5, 100%), Themeda avenacea (10, 100%)*

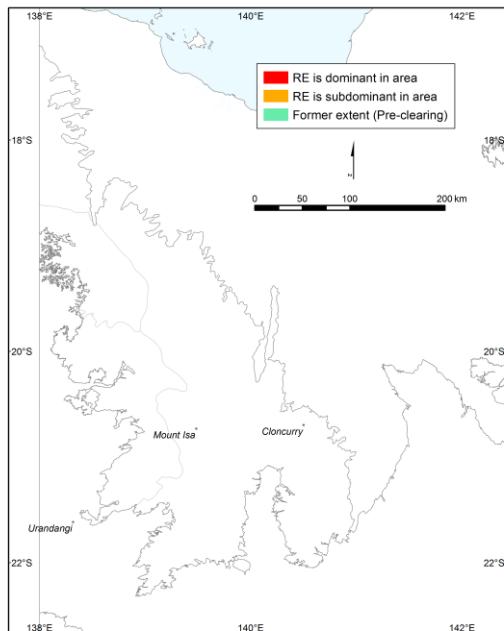
*FORBS: Desmodium muelleri (100%), Glycine tomentella (1, 100%), Goodenia fascicularis (100%), Indigofera linifolia (100%), Neptunia gracilis (100%), Polymeria longifolia (2, 100%), Rhynchosia minima var. australis (100%), Sida fibulifera (1, 100%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.10: Sinkholes with low woodland of *Celtis strychnoides* and *Ficus spp.*



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 19 19 100.00%

Species recorded: Total: 56; woody: 19; ground: 38; Avg. spp./site: 30.5; std dev.: 9.5, 2 site(s)

Basal area: Avg./site: 0.9 m<sup>2</sup>/ha, range: 0.8 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Low woodland: 50%; low open-woodland: 50%, 2 site(s)

Representative sites: 19465, 42183.

#### Stratum: Tree 1

Height avg. = 7.5m, range 6-9m, 2 sites

Crown cover avg. = 21.0%, range 2.0-40.0%, 2 sites

Dominant species (relative cover, frequency): *Celtis strychnoides* (100, 50%), *Corymbia terminalis* (95, 50%), *Corymbia aparrerinja* (5, 50%)

Frequent species (cover, frequency): *Atalaya hemiglaucua* (50%), *Celtis strychnoides* (40, 50%), *Corymbia aparrerinja* (50%), *Corymbia terminalis* (2, 50%)

#### Stratum: Tree 2

Height avg. = 3.3m, range 3-3.5m, 2 sites

Crown cover avg. = 25.0%, range 4.0-46.0%, 2 sites

Dominant species (relative cover, frequency): *Ficus indet.* (70, 50%), *Ficus opposita* (43, 50%), *Hakea arborescens* (23, 50%), *Ficus brachypoda* (22, 50%), *Ventilago viminalis* (11, 50%)

Frequent species (cover, frequency): *Alectryon oleifolius* subsp. *elongatus* (50%), *Atalaya hemiglaucua* (3, 50%), *Capparis lasiantha* (50%), *Ehretia saligna* (5, 50%), *Ficus brachypoda* (10, 50%), *Ficus indet.* (3, 50%), *Ficus opposita* (20, 50%), *Hakea arborescens* (1, 50%), *Santalum lanceolatum* (3, 50%), *Tinospora indet.* (50%), *Vachellia farnesiana\** (50%), *Ventilago viminalis* (5, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 1****Height avg. = 2.0m, range 2-2m, 2 sites****Crown cover avg. = 3.5%, range 3.0-4.0%, 2 sites**

*Dominant species (relative cover, frequency): Flueggea virosa subsp. melanthesoides (85, 100%), Operculina aequisepala (23, 50%), Eremophila longifolia (2, 50%), Ehretia saligna (2, 50%), Carissa lanceolata (2, 50%)*

*Frequent species (cover, frequency): Flueggea virosa subsp. melanthesoides (3, 100%), Carissa lanceolata (50%), Ehretia saligna (50%), Eremophila longifolia (50%), Operculina aequisepala (1, 50%)*

**Stratum: Ground****Height avg. = 0.8m, range 0.75-0.8m, 2 sites****PFC avg. = 29.5%, range 24-35%, 2 sites**

*Dominant species (relative cover, frequency): Abutilon calliphylum (28, 50%), Sehima nervosum (27, 50%), Bothriochloa erwartiana (20, 50%), Plumbago zeylanica (20, 50%), Achyranthes aspera (10, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Enneapogon lindleyanus (3, 100%), Acraeche racemosa (50%), Aristida contorta (50%), Bothriochloa erwartiana (5, 50%), Bothriochloa indet. (3, 50%), Bulbostylis barbata (50%), Cenchrus pennisetiformis\* (50%), Enneapogon eremophilus (50%), Eulalia aurea (3, 50%), Heteropogon contortus (2, 50%), Iseilema vaginiflorum (50%), Oxychloris scariosa (50%), Sehima nervosum (10, 50%), Setaria verticillata\* (2, 50%), Themeda triandra (50%)*

*FORBS: Achyranthes aspera (3, 100%), Abutilon calliphylum (7, 50%), Abutilon hannii (2, 50%), Amaranthus indet. (50%), Apowollastonia indet. (50%), Boerhavia paludosa (1, 50%), Capparis lasiantha (50%), Cheilanthes indet. (50%), Cleome viscosa (50%), Cucumis argenteus (50%), Euphorbia biconvexa (50%), Evolvulus alsinoides var. villosicalyx (3, 50%), Gomphrena arida (50%), Heliotropium tenuifolium (50%), Indigofera colutea (1, 50%), Indigofera linnaei (3, 50%), Malvastrum americanum var. americanum\* (1, 50%), Plumbago zeylanica (5, 50%), Salsola australis (50%), Sida fibulifera (50%), Solanum quadriloculatum (50%), Tephrosia brachyodon var. longifolia (1, 50%), Trichodesma zeylanicum (50%)*

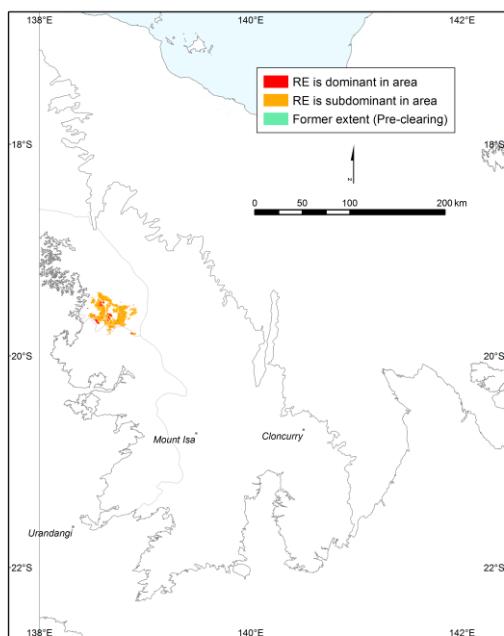
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.11a: *Corymbia terminalis* and *Lysiphyllo cunnighamii* low open woodland on low stepped hills



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 11,387 11,362 99.78%

Species recorded: Total: 54; woody: 11; ground: 43; Avg. spp./site: 30.5; std dev.: 11.5, 2 site(s)

Basal area: Avg./site: 1.0 m<sup>2</sup>/ha, range: 1.0 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative sites: 19472, 23396.

#### Stratum: Tree 1

Height avg. = 6.5m, range 5-8m, 2 sites

Crown cover avg. = 9.0%, range 8.0-10.0%, 2 sites

Dominant species (relative cover, frequency): *Lysiphyllo cunnighamii* (54, 100%), *Corymbia terminalis* (46, 100%), *Eucalyptus leucophylla* (1, 50%)

Frequent species (cover, frequency): *Corymbia terminalis* (4, 100%), *Lysiphyllo cunnighamii* (5, 100%), *Eucalyptus leucophylla* (50%)

#### Stratum: Shrub 1

Height avg. = 1.8m, range 1-2.5m, 2 sites

Crown cover avg. = 0.5%, range 0.0-1.0%, 2 sites

Dominant species (relative cover, frequency): *Carissa lanceolata* (83, 50%), *Ventilago viminalis* (20, 50%), *Hakea arborescens* (20, 50%), *Flueggea virosa* subsp. *melanthesoides* (20, 50%), *Vachellia farnesiana*\* (14, 100%)

Frequent species (cover, frequency): *Eremophila longifolia* (100%), *Vachellia farnesiana*\* (100%), *Carissa lanceolata* (1, 50%), *Flueggea virosa* subsp. *melanthesoides* (50%), *Hakea arborescens* (50%), *Ventilago viminalis* (50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 2****Height avg. = 0.8m, 1 site****Crown cover avg. = 12.0%, 1 site***Dominant species (relative cover, frequency): Senna artemisioides subsp. oligophylla (83, 50%), Senna artemisioides subsp. helmsii (17, 50%)**Frequent species (cover, frequency): Senna artemisioides subsp. helmsii (2, 50%), Senna artemisioides subsp. oligophylla (10, 50%)***Stratum: Ground****Height avg. = 0.5m, range 0.3-0.7m, 2 sites****PFC avg. = 64.5%, range 60-69%, 2 sites***Dominant species (relative cover, frequency): Aristida contorta (43, 50%), Enneapogon purpurascens (28, 50%), Sehima nervosum (25, 100%), Enneapogon indet. (16, 50%), Enneapogon eremophilus (14, 50%)**Frequent species (cover, frequency): GRAMINOIDs: Sehima nervosum (16, 100%), Triodia pungens (8, 100%), Aristida contorta (30, 50%), Brachyachne convergens (50%), Enneapogon eremophilus (10, 50%), Enneapogon indet. (10, 50%), Enneapogon purpurascens (20, 50%), Eragrostis eriopoda (2, 50%), Eragrostis indet. (50%), Eragrostis minor\* (1, 50%), Heteropogon contortus (5, 50%), Iseilema vaginiflorum (50%), Sporobolus australasicus (3, 50%)**FORBS: Melhania oblongifolia (100%), Abutilon otocarpum (50%), Boerhavia indet. (50%), Bonamia indet. (50%), Buchnera ramosissima (50%), Corchorus indet. (50%), Euphorbia accedens (50%), Evolvulus alsinoides (50%), Evolvulus alsinoides var. villosicalyx (50%), Gomphrena lanata (50%), Heliotropium indet. (50%), Heliotropium tenuifolium (50%), Indigofera linifolia (50%), Indigofera linnaei (50%), Malvastrum americanum (50%), Ocimum caryophyllum (1, 50%), Phyllanthus virgatus (50%), Polygala isingii (50%), Ptilotus indet. (50%), Rhynchosia minima (50%), Scaevola glabrata (50%), Senna planitiicola (50%), Sida fibulifera (50%), Sida trichopoda (50%), Solanum indet. (50%), Spermacoce auriculata (50%), Tinospora smilacina (50%), Tribulus cistoides (50%), Trichodesma zeylanicum (50%), Waltheria indica (50%)*

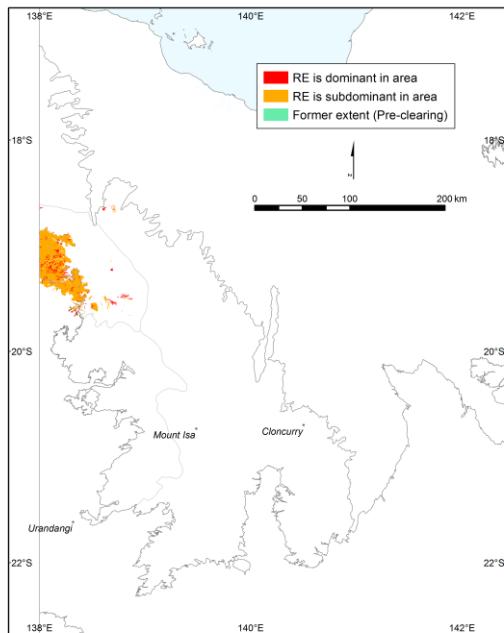

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.11b: Mixed low open woodland on margins of clay plains



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 43,959 43,956 99.99%

Species recorded: Total: 60; woody: 12; ground: 48; Avg. spp./site: 31.5; std dev.: 0.5, 2 site(s)

Basal area: Avg./site: 1.4 m<sup>2</sup>/ha, range: 0.8 - 2 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 2 site(s)

Structural formation: Low open-woodland: 100%, 2 site(s)

Representative sites: 19468, 42062.

#### Stratum: Tree 1

Height avg. = 5.5m, range 5-6m, 2 sites

Crown cover avg. = 8.5%, range 8.0-9.0%, 2 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophloia* subsp. *euroa* (60, 50%), *Lysiphyllyum cunninghamii* (44, 50%), *Eucalyptus leucophylla* (29, 100%), *Corymbia terminalis* (12, 100%), *Ventilago viminalis* (11, 50%)

Frequent species (cover, frequency): *Corymbia terminalis* (1, 100%), *Eucalyptus leucophylla* (3, 100%), *Eucalyptus leucophloia* subsp. *euroa* (5, 50%), *Eucalyptus pruinosa* subsp. *pruinosa* (50%), *Hakea chordophylla* (50%), *Lysiphyllyum cunninghamii* (4, 50%), *Ventilago viminalis* (1, 50%)

#### Stratum: Shrub 1

Height avg. = 1.5m, range 1.5-1.5m, 2 sites

Crown cover avg. = 1.0%, range 0.0-2.0%, 2 sites

Dominant species (relative cover, frequency): *Senna artemisioides* subsp. *oligophylla* (100, 50%), *Ventilago viminalis* (43, 50%), *Carissa lanceolata* (43, 50%), *Vachellia farnesiana*\* (4, 50%), *Sesbania cannabina* (4, 50%)

Frequent species (cover, frequency): *Carissa lanceolata* (1, 50%), *Eremophila longifolia* (50%), *Senna artemisioides* subsp. *oligophylla* (50%), *Sesbania cannabina* (50%), *Vachellia farnesiana*\* (50%), *Ventilago viminalis* (1, 50%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.5m, 2 sites****PFC avg. = 63.5%, range 60-67%, 2 sites**

Dominant species (relative cover, frequency): *Iseilema macratherum* (44, 50%), *Bothriochloa* indet. (33, 50%), *Senna timorensis* (24, 50%), *Enneapogon avenaceus* (22, 50%), *Dichanthium sericeum* subsp. *sericeum* (8, 50%)

Frequent species (cover, frequency): GRAMINOIDES: *Aristida contorta* (3, 50%), *Aristida latifolia* (5, 50%), *Astrebla squarrosa* (50%), *Bothriochloa* indet. (20, 50%), *Brachyachne convergens* (5, 50%), *Bulbostylis barbata* (50%), *Chrysopogon fallax* (2, 50%), *Dichanthium fecundum* (50%), *Dichanthium sericeum* subsp. *humilius* (5, 50%), *Dichanthium sericeum* subsp. *sericeum* (5, 50%), *Enneapogon avenaceus* (15, 50%), *Enneapogon polypylus* (1, 50%), *Eragrostis* indet. (50%), *Eulalia aurea* (5, 50%), *Iseilema macratherum* (30, 50%), *Iseilema vaginiflorum* (5, 50%), *Iseilema windersii* (1, 50%), *Panicum decompositum* var. *decompositum* (50%), *Sporobolus australasicus* (2, 50%), *Triodia pungens* (2, 50%)

FORBS: *Sida fibulifera* (1, 100%), *Crotalaria* indet. (50%), *Euphorbia bifida* (50%), *Evolvulus alsinoides* var. *vilosicalyx* (50%), *Flemingia* indet. (3, 50%), *Flemingia pauciflora* (1, 50%), *Goodenia lunata* (50%), *Heliotropium ballii* (50%), *Heliotropium tenuifolium* (50%), *Hibiscus verdcourtii* (50%), *Indigofera* indet. (50%), *Melhania oblongifolia* (50%), *Neptunia dimorphantha* (50%), *Neptunia gracilis* (50%), *Neptunia* indet. (50%), *Neptunia monosperma* (50%), *Oldenlandia argillacea* (50%), *Portulaca pilosa*\* (50%), *Ptilotus clementii* (50%), *Rhynchosia minima* (50%), *Scaevola* indet. (50%), *Senna timorensis* (15, 50%), *Sida laevis* (50%), *Spermacoce stenophylla* (50%), *Streptoglossa* indet. (50%), *Striga* indet. (50%), *Trichodesma zeylanicum* var. *latisepalum* (50%)

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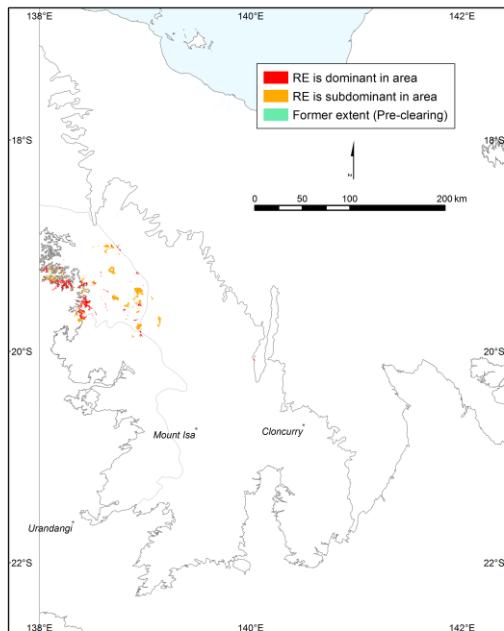
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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### 1.9.11c: *Eucalyptus leucophylla* +/- *Corymbia terminalis* low open woodland on limestone



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 25,173 25,171 99.99%

Species recorded: Total: 55; woody: 18; ground: 37; Avg. spp./site: 22.3; std dev.: 10.4, 3 site(s)

Basal area: Avg./site: 1.5 m<sup>2</sup>/ha, range: 0.5 - 3 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 3 site(s)

Structural formation: Low open-woodland: 100%, 3 site(s)

Representative sites: 19445, 19458, 42065.

#### Stratum: Emergent

Height avg. = 5.0m, 1 site

Crown cover avg. = 1.0%, 1 site

Dominant species (relative cover, frequency): *Corymbia terminalis* (100, 33%)

Frequent species (cover, frequency): *Corymbia terminalis* (1, 33%)

#### Stratum: Tree 1

Height avg. = 4.7m, range 4-5m, 3 sites

Crown cover avg. = 11.0%, range 5.0-15.0%, 3 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (96, 100%), *Atalaya hemiglaaca* (8, 33%), *Corymbia terminalis* (2, 33%), *Corymbia aparrerinja* (2, 33%), *Lysiphylum cunninghamii* (1, 33%)

Frequent species (cover, frequency): *Eucalyptus leucophylla* (11, 100%), *Atalaya hemiglaaca* (1, 33%), *Corymbia aparrerinja* (33%), *Corymbia terminalis* (33%), *Hakea arborescens* (33%), *Lysiphylum cunninghamii* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

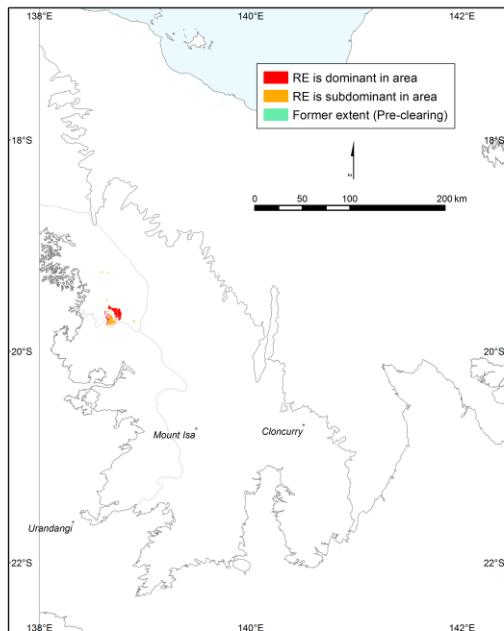
**Stratum: Tree 2****Height avg. = 3.5m, 1 site****Crown cover avg. = 0.0%, 1 site***Dominant species (relative cover, frequency): Clerodendrum tomentosum (91, 33%), Terminalia aridicola (9, 33%)**Frequent species (cover, frequency): Clerodendrum tomentosum (1, 33%), Terminalia aridicola (33%)***Stratum: Shrub 1****Height avg. = 1.4m, range 0.75-2m, 3 sites****Crown cover avg. = 4.3%, range 0.0-7.0%, 3 sites***Dominant species (relative cover, frequency): Eucalyptus leucophylla (76, 33%), Acacia hilliana (71, 33%), Corymbia terminalis (50, 33%), Carissa lanceolata (50, 33%), Tephrosia eriocarpa (15, 33%)**Frequent species (cover, frequency): Dodonaea indet. (67%), Acacia asperulacea (1, 33%), Acacia chisholmii (33%), Acacia hilliana (5, 33%), Carissa lanceolata (33%), Celtis strychnoides (33%), Corymbia terminalis (33%), Dodonaea lanceolata var. lanceolata (1, 33%), Eucalyptus leucophylla (5, 33%), Flueggea virosa subsp. melanthesoides (33%), Senna occidentalis\* (33%), Tephrosia eriocarpa (1, 33%)***Stratum: Ground****Height avg. = 0.5m, range 0.5-0.5m, 3 sites****PFC avg. = 58.3%, range 45-72%, 3 sites***Dominant species (relative cover, frequency): Triodia pungens (51, 100%), Enneapogon eremophilus (37, 67%), Digitaria ctenantha (20, 33%), Enneapogon lindleyanus (11, 100%), Sehima nervosum (5, 33%)**Frequent species (cover, frequency): GRAMINOIDs: Enneapogon lindleyanus (7, 100%), Triodia pungens (29, 100%), Enneapogon eremophilus (25, 67%), Enneapogon polypylus (2, 67%), Bulbostylis barbata (33%), Cenchrus pennisetiformis\* (33%), Cymbopogon ambiguus (33%), Digitaria ctenantha (15, 33%), Eragrostis desertorum (33%), Sehima nervosum (3, 33%), Sporobolus australasicus (33%)**FORBS: Sida fibulifera (100%), Corchorus indet. (67%), Boerhavia indet. (1, 33%), Bonamia indet. (33%), Cleome viscosa (33%), Gomphrena lanata (2, 33%), Gossypium australe (33%), Heliotropium ballii (33%), Heliotropium indet. (33%), Hybanthus aurantiacus (33%), Indigofera linifolia (33%), Indigofera linnaei (33%), Notoleptopus decaisnei (33%), Ocimum caryophyllum (33%), Phyllanthus maderaspatensis (33%), Pterocaulon serrulatum (33%), Ptilotus fusiformis (33%), Rhynchosia minima (33%), Salsola australis (33%), Scaevola indet. (33%), Scaevola ovalifolia (33%), Scaevola sp. (Mt Isa P.L.Harris 699) (33%), Solanum senticosum (33%), Templetonia hookeri (33%), Tephrosia indet. (33%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.12: *Triodia pungens* hummock grassland on Cambrian limestones



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 8,063 8,034 99.64%

Species recorded: Total: 30; woody: 3; ground: 27; Avg. spp./site: 30.0; std dev.: 0.0, 1 site(s)

Basal area: 0

Structural formation: Hummock grassland: 100%, 1 site(s)

Representative sites: 40892.

#### Stratum: Emergent

Height avg. = 0.8m, 1 site

Crown cover avg. = 1.0%, 1 site

Dominant species (relative cover, frequency): *Senna planitiicola* (33, 100%), *Senna artemisioides* subsp. *oligophylla* (33, 100%), *Senna artemisioides* subsp. *helmsii* (33, 100%)

Frequent species (cover, frequency): *Senna artemisioides* subsp. *helmsii* (100%), *Senna artemisioides* subsp. *oligophylla* (100%), *Senna planitiicola* (100%)

#### Stratum: Ground

Height avg. = 0.4m, 1 site

PFC avg. = 82.0%, 1 site

Dominant species (relative cover, frequency): *Triodia pungens* (59, 100%), *Eragrostis eriopoda* (23, 100%), *Sehima nervosum* (6, 100%), *Dichanthium sericeum* subsp. *humilius* (2, 100%), *Enneapogon purpurascens* (2, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida holathera* var. *holathera* (100%), *Dichanthium sericeum* subsp. *humilius* (2, 100%), *Enneapogon eremophilus* (1, 100%), *Enneapogon purpurascens* (2, 100%), *Eragrostis eriopoda* (19, 100%), *Heteropogon contortus* (100%), *Mnesithea formosa* (100%), *Panicum laevinode* (100%), *Sehima nervosum* (5, 100%), *Triodia pungens* (48, 100%)

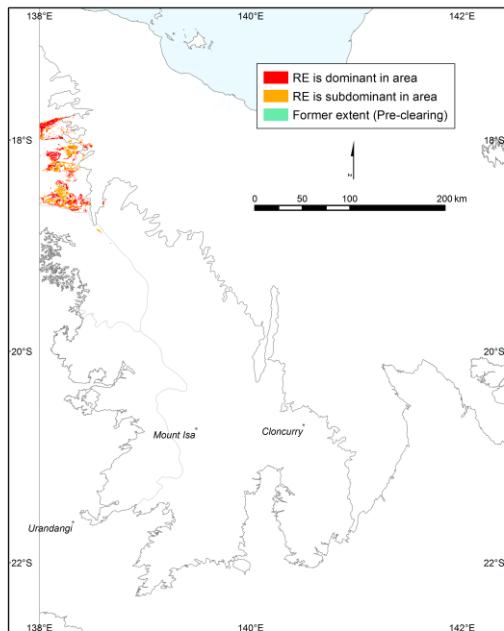
FORBS: *Blumea tenella* (100%), *Buchnera asperata* (1, 100%), *Evolvulus alsinoides* var. *villosicalyx* (100%), *Indigofera linnaei* (100%), *Kohautia australiensis* (100%), *Melhania oblongifolia* (100%), *Periploca hispidula* (100%), *Polygala triflora* (100%), *Pterocaulon serrulatum* var. *velutinum* (1, 100%), *Pterocaulon sphacelatum* (100%), *Ptilotus clementii* (100%), *Ptilotus fusiformis* (100%), *Salsola australis* (100%), *Sida fibulifera* (100%), *Spermatoce indet.* (100%), *Swainsona burkei* (1, 100%), *Trichodesma zeylanicum* (100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.13: *Eucalyptus leucophloia* low open woodland on shale hills



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 57,993 57,971 99.96%

**Species recorded:** Total: 108; woody: 31; ground: 82; Avg. spp./site: 27.7; std dev.: 9.6, 7 site(s)

**Basal area:** Avg./site: 2.0 m<sup>2</sup>/ha, range: 1.0 - 5 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 7 site(s)

**Structural formation:** Low open-woodland: 71%; woodland: 14%; open-woodland: 14%, 7 site(s)

**Representative sites:** 40184, 40404, 40565, 43015, 43036, 43075, 43076.

#### Stratum: Tree 1

**Height avg. = 7.9m, range 4-12m, 7 sites**

**Crown cover avg. = 17.4%, range 10.0-29.0%, 7 sites**

*Dominant species (relative cover, frequency): Eucalyptus leucophloia subsp. euroa (96, 100%)*

*Frequent species (cover, frequency): Eucalyptus leucophloia subsp. euroa (16, 100%), Corymbia capricornia (14%), Corymbia terminalis (9, 14%)*

#### Stratum: Tree 2

**Height avg. = 3.0m, 1 site**

**Crown cover avg. = 0.0%, 1 site**

*Frequent species (cover, frequency): Eucalyptus leucophloia subsp. euroa (14%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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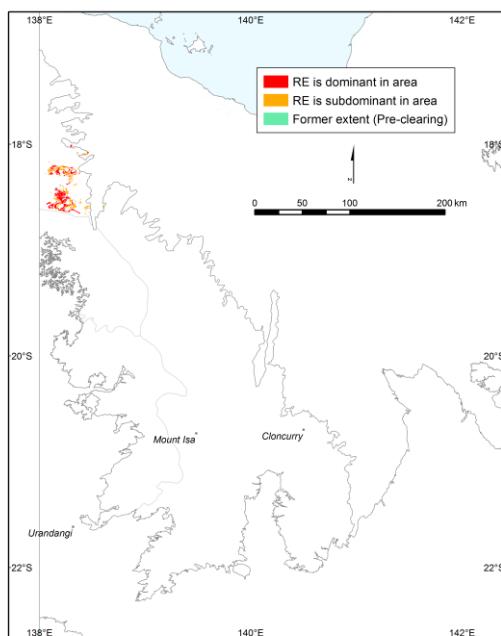
**Stratum: Shrub 1****Height avg. = 2.4m, range 0.4-4m, 7 sites****Crown cover avg. = 3.1%, range 0.0-12.0%, 7 sites***Dominant species (relative cover, frequency): Acacia monticola (51, 29%), Acacia hammondii (15, 57%), Acacia gonoclada (15, 43%)**Frequent species (cover, frequency): Acacia hammondii (57%), Acacia gonoclada (43%), Acacia monticola (4, 29%), Acacia chippendalei (14%), Acacia hilliana (12, 14%), Acacia phlebocarpa (14%), Corchorus sericeus (3, 14%), Corymbia capricornia (1, 14%), Corymbia terminalis (14%), Eucalyptus leucophloia subsp. euroa (1, 14%), Flueggea virosa subsp. melanthesoides (14%), Grevillea dryandri subsp. dryandri (14%), Lysiphyllo cunninghamii (1, 14%), Petalostigma quadriloculare (14%), Senna magnifolia (14%), Senna venusta (14%)***Stratum: Shrub 2****Height avg. = 1.0m, range 0.5-2m, 5 sites****Crown cover avg. = 1.4%, range 0.0-3.0%, 5 sites***Dominant species (relative cover, frequency): Petalostigma quadriloculare (40, 43%), Waltheria indica (14, 43%), Corchorus sericeus (8, 29%), Carissa lanceolata (7, 29%), Grevillea dryandri subsp. dryandri (7, 29%)**Frequent species (cover, frequency): Petalostigma quadriloculare (1, 43%), Terminalia canescens (43%), Waltheria indica (43%), Carissa lanceolata (29%), Corchorus sericeus (29%), Denhamia cunninghamii (29%), Dodonaea barklyana (29%), Grevillea dryandri subsp. dryandri (29%), Acacia asperulacea (14%), Acacia calligera (14%), Acacia galiooides (14%), Acacia gonoclada (14%), Acacia hammondii (14%), Acacia monticola (14%), Dodonaea lanceolata (14%), Eucalyptus leucophloia subsp. euroa (1, 14%), Flueggea virosa subsp. melanthesoides (14%), Hakea arborescens (14%), Jacksonia odontoclada (1, 14%), Sida indet. (14%), Sida sp. (Musselbrook M.B.Thomas+ MRS437) (14%), Tephrosia delestangii (14%), Tephrosia indet. (14%)***Stratum: Ground****Height avg. = 0.3m, range 0.3-0.4m, 7 sites****PFC avg. = 41.1%, range 24-55%, 7 sites***Dominant species (relative cover, frequency): Triodia pungens (93, 43%), Triodia bitextura (64, 43%), Eulalia aurea (19, 29%), Schizachyrium fragile (16, 86%), Mneshithea formosa (8, 71%)**Frequent species (cover, frequency): GRAMINOID: Schizachyrium fragile (6, 86%), Bulbostylis barbata (71%), Mneshithea formosa (2, 71%), Fimbristylis dichotoma (57%), Aristida pruinosa (1, 43%), Chrysopogon fallax (1, 43%), Eriachne ciliata (43%), Triodia bitextura (28, 43%), Triodia pungens (42, 43%), Eragrostis indet. (29%), Eriachne sp. (Dugald River B.K.Simon+ 3007) (29%), Eulalia aurea (8, 29%), Heteropogon contortus (29%), Themeda triandra (29%), Aristida holathera var. holathera (14%), Aristida ingrata (14%), Aristida latifolia (14%), Cymbopogon ambiguus (14%), Cymbopogon bombycinus (14%), Cyperus pulchellus (14%), Dichanthium secundum (14%), Digitaria brownii (14%), Enneapogon purpurascens (14%), Eragrostis cumingii (14%), Eragrostis exigua (14%), Eriachne melicacea (14%), Fimbristylis leucocolea (14%), Schizachyrium indet. (14%), Yakirra australiensis (14%)**FORBS: Mitrasacme connata (57%), Zornia muriculata (57%), Bonamia media (43%), Heliotropium tenuifolium (43%), Polycarphaea corymbosa (43%), Buchnera linearis (29%), Buchnera ramosissima (29%), Crotalaria montana (29%), Euphorbia indet. (29%), Evolvulus alsinoides (29%), Indigofera linifolia (29%), Marsdenia viridiflora (29%), Oldenlandia mitrasacmoides (29%), Polycarphaea breviflora (29%), Ptilotus fusiformis (29%), Sida indet. (29%), Tephrosia leptoclada (29%), Alternanthera nana (14%), Alysicarpus muelleri (14%), Boerhavia pubescens (14%), Calandrinia uniflora (14%), Carissa lanceolata (14%), Cheilanthes indet. (14%), Cleome viscosa (14%), Crotalaria medicaginea (14%), Cullen plumosum (3, 14%), Denhamia cunninghamii (14%), Desmodium filiforme (14%), Eucalyptus leucophloia subsp. euroa (1, 14%), Goodenia odonnelii (14%), Heliotropium ballii (14%), Heliotropium peninsulare (14%), Hibiscus sturtii var. campylochlamys (14%), Jasminum molle (14%), Kohautia australiensis (14%), Murdannia graminea (14%), Oldenlandia galiooides (14%), Oldenlandia indet. (14%), Phyllanthus indet. (14%), Phyllanthus maderaspatensis (14%), Phyllanthus virgatus (14%), Polygala barklyensis (14%), Polygala crassitesta (14%), Polygala indet. (14%), Portulaca bicolor (14%), Rhynchosia minima (14%), Sida fibulifera (14%), Solanum indet. (14%), Stackhousia intermedia (14%), Tephrosia indet. (14%), Tephrosia sp. (Magazine Hill P.Jones 365) (14%), Tribulopis pentandra (14%)*

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.14: Triodia pungens hummock grassland with emergent *Eucalyptus pruinosa* on Precambrian shales



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 23,010 22,994 99.93%

Species recorded: Total: 12; woody: 3; ground: 9; Avg. spp./site: 12.0; std dev.: 0.0, 1 site(s)

Basal area: 0

Structural formation: Hummock grassland: 100%, 1 site(s)

Representative sites: 40405.

#### Stratum: Emergent

Height avg. = 2.5m, 1 site

Crown cover avg. = 2.0%, 1 site

Dominant species (relative cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (100, 100%)

Frequent species (cover, frequency): *Eucalyptus pruinosa* subsp. *pruinosa* (2, 100%)

#### Stratum: Shrub 1

Height avg. = 0.7m, 1 site

Crown cover avg. = 5.0%, 1 site

Dominant species (relative cover, frequency): *Acacia hilliana* (98, 100%), *Acacia retinenea* subsp. *retinenea* (2, 100%)

Frequent species (cover, frequency): *Acacia hilliana* (5, 100%), *Acacia retinenea* subsp. *retinenea* (100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Ground**

**Height avg.** = 0.3m, 1 site

**PFC avg.** = 21.0%, 1 site

*Dominant species (relative cover, frequency): Triodia pungens (96, 100%)*

*Frequent species (cover, frequency): GRAMINOIDs: Bulbostylis barbata (100%), Eriachne sp. (Dugald River B.K.Simon+ 3007) (100%), Fimbristylis schultzii (100%), Triodia pungens (20, 100%)*

*FORBS: Kohautia australiensis (100%), Polycarpaea breviflora (100%), Polygala indet. (100%), Stackhousia intermedia (100%), Streptoglossa decurrents (100%)*

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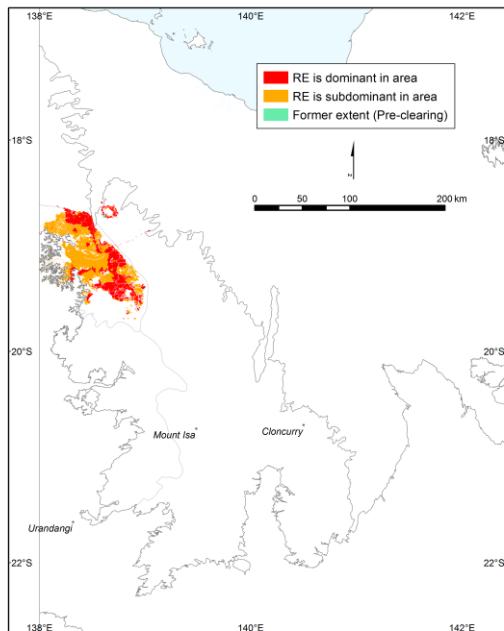
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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### 1.9.4b: Mixed shrubby low open woodland on rocky limestone hills



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 168,597 167,957 99.62%

Species recorded: Total: 69; woody: 26; ground: 43; Avg. spp./site: 30.7; std dev.: 5.4, 3 site(s)

Basal area: Avg./site: 1.0 m<sup>2</sup>/ha, range: 0.5 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 3 site(s)

Structural formation: Low open-woodland: 100%, 3 site(s)

Representative sites: 19444, 19451, 40529.

#### Stratum: Tree 1

Height avg. = 5.5m, range 4-6.5m, 3 sites

Crown cover avg. = 7.3%, range 7.0-8.0%, 3 sites

Dominant species (relative cover, frequency): *Lysiphyllo cunnighamii* (49, 100%), *Terminalia aridicola* (42, 33%), *Corymbia terminalis* (40, 67%), *Tinospora smilacina* (14, 33%), *Atalaya hemiglaucia* (14, 33%)

Frequent species (cover, frequency): *Lysiphyllo cunnighamii* (4, 100%), *Corymbia terminalis* (3, 67%), *Atalaya hemiglaucia* (1, 33%), *Ehretia saligna* (33%), *Eucalyptus leucophylla* (33%), *Terminalia aridicola* (3, 33%), *Tinospora smilacina* (1, 33%)

#### Stratum: Tree 2

Height avg. = 3.3m, range 2.5-4m, 2 sites

Crown cover avg. = 5.5%, range 5.0-6.0%, 2 sites

Dominant species (relative cover, frequency): *Terminalia aridicola* (73, 67%), *Atalaya hemiglaucia* (32, 33%), *Ficus brachypoda* (16, 33%), *Celtis strychnoides* (2, 67%), *Lysiphyllo cunnighamii* (2, 33%)

Frequent species (cover, frequency): *Celtis strychnoides* (67%), *Terminalia aridicola* (4, 67%), *Atalaya hemiglaucia* (2, 33%), *Ficus brachypoda* (1, 33%), *Lysiphyllo cunnighamii* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 1****Height avg. = 1.7m, range 1.2-2m, 3 sites****Crown cover avg. = 10.0%, range 1.0-17.0%, 3 sites**

Dominant species (relative cover, frequency): *Croton habrophyllus* (80, 33%), *Terminalia aridicola* subsp. *aridicola* (48, 33%), *Celtis strychnoides* (30, 33%), *Senna timorensis* (15, 67%), *Atalaya hemiglaucua* (13, 33%)

Frequent species (cover, frequency): *Abutilon hannii* (67%), *Carissa lanceolata* (67%), *Flueggea virosa* subsp. *melanthesoides* (67%), *Senna timorensis* (2, 67%), *Atalaya hemiglaucua* (33%), *Brachychiton collinus* (33%), *Celtis strychnoides* (5, 33%), *Clerodendrum floribundum* (33%), *Crotalaria aridicola* subsp. *glabrata* (33%), *Croton habrophyllus* (10, 33%), *Dodonaea viscosa* (1, 33%), *Ficus* indet. (33%), *Hakea arborescens* (33%), *Jasminum didymum* subsp. *lineare* (33%), *Jasminum molle* (1, 33%), *Lysiphyllo cunninghamii* (33%), *Senna* indet. (33%), *Tephrosia gyropoda* (33%), *Terminalia aridicola* subsp. *aridicola* (8, 33%), *Trema tomentosa* var. *aspera* (33%)

**Stratum: Ground****Height avg. = 0.5m, range 0.5-0.5m, 3 sites****PFC avg. = 43.7%, range 15-85%, 3 sites**

Dominant species (relative cover, frequency): *Triodia pungens* (44, 67%), *Enneapogon lindleyanus* (35, 100%), *Alectryon oleifolius* subsp. *elongatus* (18, 33%), *Digitaria ctenantha* (12, 33%), *Digitaria brownii* (12, 33%)

Frequent species (cover, frequency): GRAMINOIDs: *Enneapogon lindleyanus* (9, 100%), *Bulbostylis barbata* (67%), *Enneapogon* indet. (3, 67%), *Sporobolus australasicus* (67%), *Triodia pungens* (36, 67%), *Aristida longicollis* (33%), *Bothriochloa erwartiana* (33%), *Cenchrus pennisetiformis*\* (1, 33%), *Chrysopogon fallax* (33%), *Cymbopogon ambiguus* (33%), *Dichanthium secundum* (2, 33%), *Digitaria brownii* (2, 33%), *Digitaria ctenantha* (2, 33%), *Enneapogon eremophilus* (1, 33%), *Enneapogon gracilis* (2, 33%), *Eragrostis tenellula* (33%), *Mnesithea formosa* (33%), *Sehima nervosum* (8, 33%)

FORBS: *Cucumis argenteus* (100%), *Buchnera ramosissima* (67%), *Capparis lasiantha* (67%), *Cleome viscosa* (67%), *Evolvulus alsinoides* var. *villosicalyx* (67%), *Abutilon* indet. (33%), *Achyranthes aspera* (33%), *Alectryon oleifolius* subsp. *elongatus* (3, 33%), *Bidens bipinnata*\* (33%), *Boerhavia* indet. (33%), *Cochlospermum gillivraei* (33%), *Corchorus* indet. (33%), *Crotalaria medicaginea* (33%), *Euphorbia* indet. (33%), *Heliotropium tenuifolium* (33%), *Hypoestes floribunda* var. *cinerea* (33%), *Indigofera linifolia* (33%), *Malvastrum americanum* (33%), *Melhania oblongifolia* (33%), *Phyllanthus maderaspatensis* (33%), *Sida fibulifera* (33%), *Sida hackettiana* (1, 33%), *Tephrosia eriocarpa* (33%), *Trichodesma zeylanicum* var. *zeylanicum* (33%)

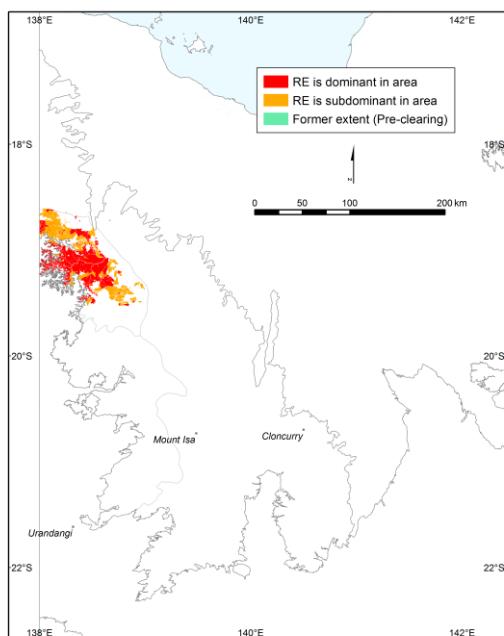
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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.4c: *Corymbia terminalis* +/- *Eucalyptus leucophylla* low open woodland on rocky limestone hills



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 145,272 145,267 100.00%

Species\_recorded: Total: 61; woody: 24; ground: 38; Avg. spp./site: 23.7; std dev.: 5.6, 3 site(s)

Basal area: Avg./site: 1.4 m<sup>2</sup>/ha, range: 0.3 - 3 m<sup>2</sup>/ha, std. deviation: 1 m<sup>2</sup>/ha, 3 site(s)

Structural formation: Low open-woodland: 67%; open-woodland: 33%, 3 site(s)

Representative\_sites: 23391, 40885, 42072.

#### Stratum: Tree 1

Height avg. = 8.7m, range 5-13m, 3 sites

Crown cover avg. = 9.7%, range 7.0-12.0%, 3 sites

Dominant species (relative cover, frequency): *Corymbia terminalis* (89, 100%), *Eucalyptus leucophylla* (27, 33%), *Lysiphyllo* *cunninghamii* (1, 33%), *Ficus rubiginosa* (1, 33%), *Celtis strychnoides* (1, 33%)

Frequent species (cover, frequency): *Corymbia terminalis* (9, 100%), *Celtis strychnoides* (33%), *Corymbia aparrerinja* (33%), *Eucalyptus leucophylla* (2, 33%), *Ficus rubiginosa* (33%), *Lysiphyllo* *cunninghamii* (33%)

#### Stratum: Tree 2

Height avg. = 3.3m, range 3-3.5m, 2 sites

Crown cover avg. = 5.0%, range 4.0-6.0%, 2 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (98, 33%), *Terminalia aridicola* (49, 33%), *Hakea arborescens* (49, 33%), *Corymbia terminalis* (2, 33%), *Tinospora smilacina* (2, 33%)

Frequent species (cover, frequency): *Corymbia terminalis* (33%), *Eucalyptus leucophylla* (4, 33%), *Hakea arborescens* (3, 33%), *Terminalia aridicola* (3, 33%), *Tinospora smilacina* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

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**Stratum: Shrub 1****Height avg. = 1.6m, range 1.2-2m, 3 sites****Crown cover avg. = 1.7%, range 1.0-3.0%, 3 sites**

Dominant species (relative cover, frequency): *Acacia chisholmii* (65, 33%), *Atalaya hemiglaaca* (59, 33%), *Santalum lanceolatum* (29, 67%), *Eucalyptus leucophylla* (25, 33%), *Corymbia terminalis* (25, 33%)

Frequent species (cover, frequency): *Santalum lanceolatum* (1, 67%), *Abutilon otocarpum* (33%), *Acacia chisholmii* (2, 33%), *Atalaya hemiglaaca* (1, 33%), *Bonamia pannosa* (33%), *Cleome viscosa* (33%), *Clerodendrum floribundum* (33%), *Corymbia terminalis* (33%), *Crotalaria medicaginea* (33%), *Ehretia saligna* (33%), *Eucalyptus leucophylla* (33%), *Indigofera linifolia* (33%), *Malvastrum americanum* var. *americanum*\* (33%), *Ptilotus indet.* (33%)

**Stratum: Shrub 2****Height avg. = 0.9m, range 0.6-1.25m, 2 sites****Crown cover avg. = 0.5%, range 0.0-1.0%, 2 sites**

Dominant species (relative cover, frequency): *Acacia phlebocarpa* (77, 33%), *Senna notabilis* (50, 33%), *Crotalaria aridicola* subsp. *glabrata* (50, 33%), *Santalum lanceolatum* (8, 33%), *Corymbia terminalis* (8, 33%)

Frequent species (cover, frequency): *Acacia phlebocarpa* (1, 33%), *Clerodendrum floribundum* (33%), *Corymbia terminalis* (33%), *Crotalaria aridicola* subsp. *glabrata* (33%), *Santalum lanceolatum* (33%), *Senna notabilis* (33%)

**Stratum: Ground****Height avg. = 0.4m, range 0.3-0.5m, 3 sites****PFC avg. = 56.3%, range 45-70%, 3 sites**

Dominant species (relative cover, frequency): *Enneapogon polyphyllus* (61, 33%), *Triodia pungens* (41, 67%), *Enneapogon eremophilus* (20, 33%), *Sehima nervosum* (19, 100%), *Heteropogon contortus* (12, 33%)

Frequent species (cover, frequency): GRAMINOIDs: *Sehima nervosum* (11, 100%), *Enneapogon lindleyanus* (8, 67%), *Triodia pungens* (19, 67%), *Cenchrus pennisetiformis*\* (1, 33%), *Enneapogon eremophilus* (9, 33%), *Enneapogon polyphyllus* (50, 33%), *Heteropogon contortus* (10, 33%), *Mnesithea formosa* (4, 33%), *Panicum laevinode* (33%), *Schizachyrium fragile* (33%), *Schizachyrium indet.* (1, 33%)

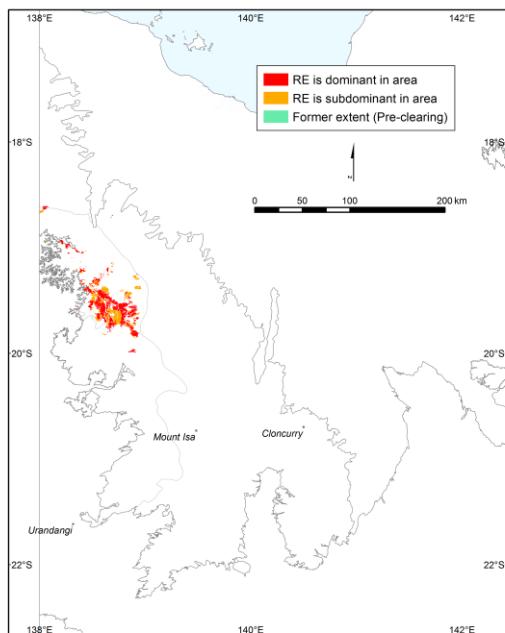
FORBS: *Jacquemontia browniana* (1, 67%), *Acacia chippendalei* (33%), *Acacia hilliana* (33%), *Bonamia pannosa* (33%), *Buchnera ramosissima* (33%), *Corchorus sericeus* (33%), *Galactia tenuiflora* var. *macrantha* (1, 33%), *Gomphrena arida* (33%), *Indigofera linnaei* (2, 33%), *Indigofera trita* subsp. *trita* (33%), *Marsdenia indet.* (33%), *Melhania oblongifolia* (33%), *Phyllanthus indet.* (33%), *Polygala pterocarpa* (33%), *Polymeria lanata* (33%), *Rhynchosia minima* var. *minima* (1, 33%), *Scaevola* sp. (Mt Isa P.L.Harris 699) (33%), *Sida fibulifera* (1, 33%), *Sida indet.* (33%), *Spermacoce auriculata* (33%), *Spermacoce stenophylla* (1, 33%), *Templetonia hookeri* (33%), *Tephrosia eriocarpa* (5, 33%), *Tephrosia* sp. (Pannikan Springs A.R.Bean+ 5612) (1, 33%), *Trichodesma zeylanicum* (33%), *Trichodesma zeylanicum* var. *zeylanicum* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

### 1.9.5b: *Eucalyptus leucophylla* open mallee shrubland on limestone



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 75,065 74,983 99.89%

Species recorded: Total: 42; woody: 5; ground: 38; Avg. spp./site: 17.7; std dev.: 5.4, 3 site(s)

Basal area: 0

Structural formation: Open-shrubland: 100%, 3 site(s)

Representative sites: 19463, 23395, 40407.

#### Stratum: Shrub 1

Height avg. = 2.8m, range 1.8-4m, 3 sites

Crown cover avg. = 6.0%, range 3.0-10.0%, 3 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (100, 100%)

Frequent species (cover, frequency): *Eucalyptus leucophylla* (6, 100%)

#### Stratum: Shrub 2

Height avg. = 1.5m, range 0.5-2.5m, 3 sites

Crown cover avg. = 0.0%, range 0.0-0.0%, 3 sites

Dominant species (relative cover, frequency): *Eucalyptus leucophylla* (100, 33%), *Acacia citriodora* (100, 33%), *Tephrosia indet.* (33, 33%), *Senna artemisioides* subsp. *oligophylla* (33, 33%), *Acacia hilliana* (33, 33%)

Frequent species (cover, frequency): *Acacia citriodora* (33%), *Acacia hilliana* (33%), *Eucalyptus leucophylla* (33%), *Senna artemisioides* subsp. *oligophylla* (33%), *Tephrosia indet.* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

**Stratum: Ground****Height avg. = 0.5m, range 0.4-0.6m, 3 sites****PFC avg. = 42.3%, range 33-50%, 3 sites**

*Dominant species (relative cover, frequency): Triodia pungens (81, 100%), Eriachne indet. (20, 33%), Spermacoce auriculata (14, 33%), Chrysopogon fallax (5, 33%), Sporobolus australasicus (2, 33%)*

*Frequent species (cover, frequency): GRAMINOIDs: Triodia pungens (34, 100%), Enneapogon lindleyanus (67%), Eragrostis desertorum (1, 67%), Aristida holathera var. holathera (33%), Bulbostylis barbata (33%), Chrysopogon fallax (2, 33%), Enneapogon eremophilus (33%), Enneapogon polyphyllus (33%), Enneapogon purpurascens (33%), Eriachne indet. (10, 33%), Mnesithea formosa (33%), Panicum decompositum var. decompositum (33%), Sporobolus australasicus (1, 33%)*

*FORBS: Ptilotus clementii (100%), Ptilotus fusiformis (67%), Scaevola ovalifolia (1, 67%), Sida fibulifera (67%), Boerhavia indet. (33%), Buchnera asperata (33%), Cleome viscosa (33%), Corchorus indet. (33%), Corchorus sericeus (33%), Euphorbia indet. (33%), Goodenia triodiophila (33%), Heliotropium indet. (33%), Hybanthus aurantiacus (33%), Kohautia australiensis (33%), Melhania oblongifolia (33%), Notoleptopus decaisnei (33%), Polygala pterocarpa (33%), Salsola australis (33%), Scaevola glabrata (33%), Scaevola sp. (Mt Isa P.L.Harris 699) (33%), Solanum indet. (33%), Spermacoce auriculata (6, 33%), Tephrosia eriocarpa (33%), Tephrosia indet. (33%), Trichodesma zeylanicum var. zeylanicum (33%)*

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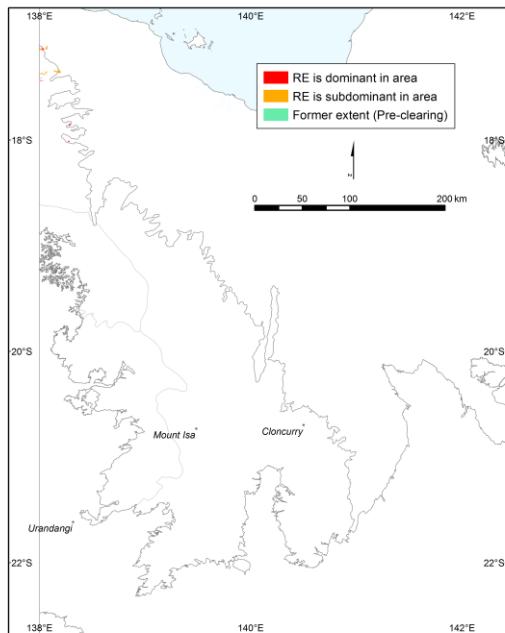
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.9.7: *Eucalyptus pruinosa* low open woodland on shale hills



D. Kelman

**Pre-clearing area (ha), remnant area (ha) and per cent remaining:** 1,458 1,451 99.51%

**Species recorded:** Total: 81; woody: 18; ground: 65; Avg. spp./site: 44.5; std dev.: 0.5, 2 site(s)

**Basal area:** Avg./site: 0.4 m<sup>2</sup>/ha, range: 0.3 - 1 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 2 site(s)

**Structural formation:** Low open-woodland: 100%, 2 site(s)

**Representative sites:** 48315, 48374.

#### Stratum: Tree 1

**Height avg. = 5.5m, range 5-6m, 2 sites**

**Crown cover avg. = 19.5%, range 18.0-21.0%, 2 sites**

**Dominant species (relative cover, frequency):** *Eucalyptus pruinosa* subsp. *pruinosa* (50, 100%), *Terminalia canescens* (28, 50%), *Erythrophleum chlorostachys* (22, 50%), *Corymbia capricornia* (22, 50%), *Eucalyptus chlorophylla* (14, 50%)

**Frequent species (cover, frequency):** *Eucalyptus pruinosa* subsp. *pruinosa* (10, 100%), *Acacia hammondii* (50%), *Corymbia capricornia* (4, 50%), *Corymbia grandifolia* subsp. *grandifolia* (3, 50%), *Erythrophleum chlorostachys* (4, 50%), *Eucalyptus chlorophylla* (3, 50%), *Terminalia canescens* (5, 50%)

#### Stratum: Shrub 1

**Height avg. = 0.7m, range 0.5-0.9m, 2 sites**

**Crown cover avg. = 1.5%, range 0.0-3.0%, 2 sites**

**Dominant species (relative cover, frequency):** *Petalostigma quadriloculare* (75, 50%), *Flueggea virosa* subsp. *melanthesoides* (50, 50%), *Acacia holosericea* (50, 50%), *Wrightia saligna* (3, 50%), *Waltheria indica* (3, 50%)

**Frequent species (cover, frequency):** *Acacia hammondii* (50%), *Acacia holosericea* (50%), *Dodonaea hispidula* var. *hispidula* (50%), *Flueggea virosa* subsp. *melanthesoides* (50%), *Grevillea dryandri* subsp. *dryandri* (50%), *Petalostigma quadriloculare* (3, 50%), *Tephrosia conspicua* (50%), *Tephrosia* sp. (Barkly Downs S.L.Everist 3384) (50%), *Terminalia canescens* (50%), *Triumfetta pannosa* (50%), *Triumfetta parviflora* (50%), *Waltheria indica* (50%), *Wrightia saligna* (50%)

**Dominant species:** Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

**Frequent species:** Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Ground****Height avg. = 0.2m, range 0.2-0.2m, 2 sites****PFC avg. = 25.0%, range 25-25%, 2 sites**

Dominant species (relative cover, frequency): *Schizachyrium fragile* (71, 100%), *Triodia bitextura* (18, 50%), *Aristida pruinosa* (17, 50%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida hygrometrica* (100%), *Eriachne ciliata* (100%), *Schizachyrium fragile* (20, 100%), *Abildgaardia ovata* (50%), *Aristida ingrata* (50%), *Aristida pruinosa* (5, 50%), *Bulbostylis barbata* (50%), *Digitaria ciliaris*\* (50%), *Enneapogon polypyllus* (50%), *Eragrostis cumingii* (50%), *Fimbristylis dichotoma* (50%), *Mnesithea formosa* (50%), *Perotis rara* (50%), *Setaria surgens* (50%), *Sporobolus australasicus* (50%), *Triodia bitextura* (5, 50%), *Triodia pungens* (50%), *Yakirra australiensis* (50%)

FORBS: *Bonamia media* (100%), *Polycarpaea corymbosa* (100%), *Spermacoce latimarginata* (100%), *Acacia galiooides* (50%), *Boerhavia pubescens* (50%), *Buchnera* indet. (50%), *Calandrinia uniflora* (50%), *Cheilanthes* indet. (50%), *Cleome viscosa* (50%), *Corchorus pumilio* (50%), *Corchorus sericeus* (50%), *Crotalaria brevis* (50%), *Crotalaria medicaginea* (50%), *Desmodium filiforme* (50%), *Euphorbia coghlani* (50%), *Evolvulus alsinoides* (50%), *Gomphrena lanata* (50%), *Goodenia odonnelii* (50%), *Heliotropium* indet. (50%), *Heliotropium tenuifolium* (50%), *Hibiscus burtonii* (50%), *Hibiscus panduriformis* (50%), *Indigofera colutea* (50%), *Indigofera haplophylla* (50%), *Indigofera linifolia* (50%), *Jacquemontia browniana* (50%), *Murdannia graminea* (50%), *Oldenlandia mitrasacmoides* (50%), *Passiflora foetida*\* (50%), *Phyllanthus carpentariae* (50%), *Phyllanthus virgatus* (50%), *Polygala crassitesta* (50%), *Polygala* indet. (50%), *Portulaca australis* (50%), *Portulaca bicolor* (50%), *Portulaca oligosperma* (50%), *Pteroaulon serrulatum* (50%), *Sida spinosa*\* (50%), *Stackhousia intermedia* (50%), *Trianthema rhynchocalyptra* (50%), *Waltheria indica* (50%), *Xenostegia tridentata* (50%), *Zornia muriculata* subsp. *angustata* (50%), *Zornia prostrata* (50%)

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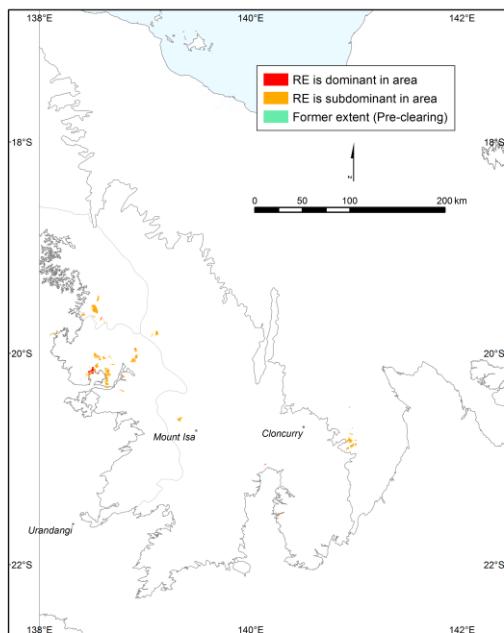
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

### 1.9.9: *Acacia cambagei* low woodland on clays developed on Cambrian limestones



D. Kelman

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 4,602 4,590 99.74%

Species recorded: Total: 26; woody: 3; ground: 23; Avg. spp./site: 26.0; std dev.: 0.0, 1 site(s)

Basal area: Avg./site: 9.5 m<sup>2</sup>/ha, range: 9.5 - 10 m<sup>2</sup>/ha, std. deviation: 0 m<sup>2</sup>/ha, 1 site(s)

Structural formation: Low woodland: 100%, 1 site(s)

Representative sites: 40877.

#### Stratum: Tree 1

Height avg. = 4.5m, 1 site

Crown cover avg. = 40.0%, 1 site

Dominant species (relative cover, frequency): *Acacia cambagei* (100, 100%)

Frequent species (cover, frequency): *Acacia cambagei* (40, 100%)

#### Stratum: Shrub 1

Height avg. = 2.5m, 1 site

Crown cover avg. = 6.0%, 1 site

Dominant species (relative cover, frequency): *Acacia cambagei* (100, 100%)

Frequent species (cover, frequency): *Acacia cambagei* (6, 100%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (\*) after the name. indet. after listed name = indeterminate species or genus

12/04/2019

**Stratum: Shrub 2****Height avg. = 0.8m, 1 site****Crown cover avg. = 2.0%, 1 site**

Dominant species (relative cover, frequency): *Acacia cambagei* (91, 100%), *Senna artemisioides* subsp. *oligophylla* (5, 100%), *Carissa lanceolata* (5, 100%)

Frequent species (cover, frequency): *Acacia cambagei* (2, 100%), *Carissa lanceolata* (100%), *Senna artemisioides* subsp. *oligophylla* (100%)

**Stratum: Ground****Height avg. = 0.3m, 1 site****PFC avg. = 15.0%, 1 site**

Dominant species (relative cover, frequency): *Aristida latifolia* (67, 100%), *Eragrostis eriopoda* (13, 100%), *Enneapogon nigricans* (7, 100%), *Abutilon hannii* (1, 100%), *Abutilon* indet. (1, 100%)

Frequent species (cover, frequency): GRAMINOIDs: *Aristida contorta* (100%), *Aristida latifolia* (10, 100%), *Astrebla pectinata* (100%), *Brachyachne convergens* (100%), *Chrysopogon fallax* (100%), *Dichanthium sericeum* subsp. *humilius* (100%), *Enneapogon nigricans* (1, 100%), *Eragrostis eriopoda* (2, 100%), *Fimbristylis dichotoma* (100%), *Sporobolus australasicus* (100%)

FORBS: *Abutilon hannii* (100%), *Abutilon* indet. (100%), *Achyranthes aspera* (100%), *Enchytraea tomentosa* (100%), *Indigofera linifolia* (100%), *Melhania oblongifolia* (100%), *Neptunia* indet. (100%), *Ptilotus obovatus* (100%), *Rhynchosia minima* (100%), *Sida fibulifera* (100%), *Sida spinosa*\* (100%), *Solanum quadriloculatum* (100%), *Vachellia farnesiana*\* (100%)

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Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

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12/04/2019