### PRIORITY ECOLOGICAL COMMUNITIES FOR WESTERN AUSTRALIA

**VERSION 27**

Species and Communities Branch, Department of Biodiversity, Conservation and Attractions

30 June 2017

Possible threatened ecological communities that do not meet survey criteria or that are not adequately defined are added to the priority ecological community list under priorities 1, 2 and 3. These three categories are ranked in order of priority for survey and/or definition of the community, and evaluation of conservation status, so that consideration can be given to their declaration as threatened ecological communities. Ecological communities that are adequately known, and are rare but not threatened or meet criteria for near threatened, or that have been recently removed from the threatened list, are placed in priority 4. These ecological communities require regular monitoring. Conservation dependent ecological communities are placed in priority 5.

Note:

i) Nothing in this table may be construed as a nomination for listing under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

ii) The inclusion in this table of a community type does not necessarily imply any status as a threatened ecological community, however some communities are listed as threatened ecological communities (TECs) under the EPBC Act (see column D).

iii) The key diagnostic characteristics, condition and size thresholds in the Approved Conservation Advices should be applied to determine if particular areas align with EPBC listed TECs.

iv) Regions eg Pilbara are based on Department of Biodiversity, Conservation and Attractions regional boundaries.

<table>
<thead>
<tr>
<th>Community name</th>
<th>Category (WA)</th>
<th>Category EPBC Act</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PILBARA</strong></td>
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<tr>
<td>1 West Angels Cracking-Clays</td>
<td>Priority 1</td>
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<tr>
<td>Open tussock grasslands of <em>Astrebla pectinata</em>, <em>A. elymoides</em>, <em>Aristida latifolia</em>, in combination with <em>Astrebla squarrosa</em> and low scattered shrubs of <em>Sida fibulifera</em>, on basalt derived cracking-clay loam depressions and flowlines. Threats: disturbance footprints increasing from mine, future infrastructure development, possible weed invasion and changes in fire regime.</td>
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<td>2 Weeli Wolli Spring community</td>
<td>Priority 1</td>
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<tr>
<td>Weeli Wolli Spring’s riparian woodland and forest associations are unusual as a consequence of the composition of the understorey. The sedge and herbfield communities that fringe many of the pools and associated water bodies along the main channels of Weeli Wolli Creek have not been recorded from any other wetland site in the Pilbara. The spring and creekline are also noted for their relatively high diversity of stygofauna and this is probably attributed to the large-scale calcare and alluvial aquifer system associated with the creek. The valley of Weeli Wolli Spring also supports a very rich microbat assemblage including a threatened species. Threats: dewatering and re-watering altering patterns of inundation, weed invasion</td>
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<tr>
<td>3 Burrup Peninsula rock pool communities</td>
<td>Priority 1</td>
<td></td>
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<tr>
<td>Calcareous tufa deposits. Interesting aquatic snails. Threats: recreational impacts, and potential development; possibly NOX and SOX emissions, weed invasion including <em>Passiflora foetida</em> (stinking passion flower).</td>
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</tr>
<tr>
<td>4 Burrup Peninsula rock pile communities</td>
<td>Priority 1</td>
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<tr>
<td>Pockets of vegetation in rock piles, rock pockets and outcrops. Comprise a mixture of Pilbara and Kimberley species, communities are different from those of the Hamersley and Chichester Ranges. Short-range endemic land snails. Threats: industrial development dust emissions. Weed invasion including buffel grass, <em>Passiflora foetida</em>.</td>
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<tr>
<td>5 Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (Roebourne Plains gilgai grasslands)</td>
<td>Priority 1</td>
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<tr>
<td>The Roebourne Plains coastal grasslands with gilgai micro-relief occur on deep cracking clays that are self mulching and emerge on depositional surfaces. The Roebourne Plains gilgai grasslands occur on microrelief of deep cracking clays, surrounded by clay plains/ flats and sandy coastal and alluvial plains. The gilgai depressions supports ephemeral and perennial tussock grasslands dominated by <em>Sorghum sp.</em> and <em>Eragrostis xerophila</em> (Roebourne Plains grass) along with other native species including <em>Astrebla pectinata</em> (barley mitchell grass), <em>Erachne benthamii</em> (swamp wanderrrie grass), <em>Chrysogonum fallax</em> (golden beard grass) and <em>Panicum decompositum</em> (native millet). Restricted to the Karratha area, this community differs from the surrounding clay flats of the Horseflat land system which are dominated by <em>Eragrostis xerophila</em> and other perennial tussock grass species (<em>Eragrostis mostly</em>). Threats: grazing, clearing for mining and infrastructure and urban development, weed invasion, basic raw material extraction.</td>
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<tr>
<td>No.</td>
<td>Description</td>
<td>Priority</td>
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<tr>
<td>6</td>
<td>Stony Chenopod association of the Roebourne Plains area</td>
<td>1</td>
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<td></td>
<td>The community is dominated by <em>Eragrostis xerophila</em> and chenopods growing in saline clay soils with dense surface strew of pebbles and cobbles. The association appears to be uncommon and is likely to be linked with the Cheerawarra land system (Unit 3 - Saline clay plains). Only one occurrence has been located to date (Roebourne Airport), however it is likely some other small areas remain. Threats: grazing, clearing, and weeds especially buffel grass.</td>
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<tr>
<td>7</td>
<td>Barrow Island subterranean fauna</td>
<td>1</td>
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<td>Barrow Island stygofauna and troglofauna.</td>
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<tr>
<td>8</td>
<td>Subterranean invertebrate communities of mesas in the Robe Valley region</td>
<td>1</td>
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<td>A series of isolated mesas occur in the Robe Valley in the state’s Pilbara Region. The mesas are remnants of old valley infill deposits of the palaeo Robe River. The troglobitic faunal communities occur in an extremely specialised habitat and appear to require the particular structure and hydrogeology associated with mesas to provide a suitable humid habitat. Short range endemism is common in the fauna. The habitat is the humidified pisolitic strata. Threats: mining and industrial development.</td>
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<tr>
<td>9</td>
<td>Subterranean invertebrate community of pisolitic hills in the Pilbara</td>
<td>1</td>
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<tr>
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<td>A series of isolated low undulating hills occur in the state’s Pilbara region. The troglofauna are being identified as having very short range distributions.</td>
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<tr>
<td>10</td>
<td>Peedamulla Marsh vegetation complex</td>
<td>1</td>
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<td></td>
<td>Peedamulla (Cane River) Swamp Cyperaceae community, near mouth of Cane River. Plants are unusual. Threats: grazing, weed invasion, altered surface hydrologic flows.</td>
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<tr>
<td>11</td>
<td>Triodia angusta dominated creekline vegetation (Barrow Island)</td>
<td>1</td>
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<td></td>
<td>General cover of <em>Triodia angusta</em> with shrubs principally <em>Hakea suberea</em>, <em>Petalostylis labicheoides</em>, <em>Acacia bivenosa</em>, and <em>Gossypium robinsonii</em>. Threats: basic raw material extraction for island infrastructure.</td>
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<tr>
<td>12</td>
<td>Brockman Iron cracking clay communities of the Hamersley Range</td>
<td>1</td>
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<td></td>
<td>Rare tussock grassland dominated by <em>Astrebla lappacea</em> (not every site has presence of Astrebla) in the Hamersley Range, on the Brockman land system. Tussock grassland on cracking clays- derived in valley floors, depositional floors. This is a rare community and the landform is rare. Known from near West Angeles, Newman, Tom Price and boundary of Hamersley and Brockman Stations. Threats: heavily grazed, mining and infrastructure developments, altered hydrological flows.</td>
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<tr>
<td>13</td>
<td>Mingah Springs calcrite groundwater assemblage type on Gascoyne palaeodrainage on Mingah Spring Station</td>
<td>1</td>
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<tr>
<td></td>
<td>Unique assemblages of invertebrates have been identified in the groundwater calcrites. Threats: mining</td>
<td></td>
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<tr>
<td>14</td>
<td>Tussock grasslands or grassy tall or low shrublands of the Yarcowie Land System (Carnarvon Basin)</td>
<td>1</td>
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<td></td>
<td>Gilgaied soils derived from lower cretaceous benthonitic siltstone on nearly flat plains that support tussock grasslands or grassy tall or low shrublands. Land system has very restricted distribution. Threats: over grazing</td>
<td></td>
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<tr>
<td>15</td>
<td>Stygfaunal community of the Bungaroo Aquifer</td>
<td>1</td>
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<td></td>
<td>A unique assemblage of aquatic subterranean fauna including eels, snails and other stygofauna. Threats: groundwater drawdown, mining.</td>
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<tr>
<td>16</td>
<td>Freshwater claypans of the Fortescue Valley</td>
<td>1</td>
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<tr>
<td>17</td>
<td>Fortescue Marsh (Marsh Land System)</td>
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<td>Fortescue Marsh is an extensive, episodically inundated samphire marsh at the upper terminus of the Fortescue River and the western end of Goodiadarie Hills. It is regarded as the largest ephemeral wetland in the Pilbara. It is a highly diverse ecosystem with fringing mulga woodlands (on the northern side), samphire shrublands and groundwater dependant riparian ecosystems. It is an arid wetland utilized by waterbirds and supports a rich diversity of restricted aquatic and terrestrial invertebrates. Recorded locality for night parrot and bilby and several other threatened vertebrate fauna. Endemic Eremophila species, populations of priority flora and several near endemic and new to science samphires.</td>
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<td>Threats: mining, altered hydrology (watering with fresh water), grazing and weed invasion.</td>
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<td>Priority 1</td>
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<thead>
<tr>
<th>18</th>
<th>Tanpool land system</th>
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<tbody>
<tr>
<td></td>
<td>A highly restricted land system that occurs between Pannawonica and Onslow. Consists of stony plains and low ridges of sandstone and other sedimentary rocks supporting hard spinifex grasslands and snakewood shrublands.</td>
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<tr>
<td></td>
<td>Threats: grazing</td>
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<tr>
<td>Priority 1</td>
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<thead>
<tr>
<th>19</th>
<th>Coolibah-lignum flats: <em>Eucalyptus victrix</em> over <em>Muehlenbeckia</em> community</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Woodland or forest of <em>Eucalyptus victrix</em> (coolibah) over thicket of <em>Duma florulenta</em> (lignum) on red clays in run-on zones. Associated species include <em>Eriachne benthamii</em>, <em>Themeda triandra</em>, <em>Aristida latifolia</em>, <em>Eulalia aurea</em> and <em>Acacia aneura</em>. A series of sub-types have been identified:</td>
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<td></td>
<td>- Coolibah and mulga (<em>Acacia aneura</em>) woodland over lignum and tussock grasses on clay plains (Coonedewanna Flats and Wanna Munna Flats)</td>
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<td>- Coolibah woodlands over lignum (<em>Duma florulenta</em>) over swamp wandiree (Lake Robinson is the only known occurrence)</td>
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<td></td>
<td>- Coolibah woodland over lignum and silky browntop (<em>Eulalia aurea</em>) (two occurrences known on Mt Bruce Flats)</td>
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<td>Threats: dewatering and grazing, altered hydrological regimes, clearing associated with infrastructure corridors.</td>
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<td>Priority 3(i)</td>
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<td>Priority 1</td>
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<td>Priority 1</td>
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<thead>
<tr>
<th>20</th>
<th>Four plant assemblages of the Wona Land System (previously <em>Cracking clays of the Chichester and Mungaroona Range</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A system of basalt upland gilgai plains with tussock grasslands occurs throughout the Chichester Range in the Chichester-Millstream National Park, Mungaroona Range Nature Reserve and on adjacent pastoral leases. There are a series of community types identified within the Wona Land System gilgai plains that are considered susceptible to known threats such as grazing or have constituent rare/restricted species, as follows:</td>
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<tr>
<td></td>
<td>- Cracking clays of the Chichester and Mungaroona Range. This grassless plain of stony gigger community occurs on the tablelands with very little vegetative cover during the dry season, however during the wet a suite of ephemerals/annuals and short-lived perennials emerge, many of which are poorly known and range-end taxa.</td>
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<td></td>
<td>- Annual Sorghum grasslands on self mulching clays. This community appears very rare and restricted to the Pannawonica-Robe valley end of Chichester Range.</td>
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<td>- Mitchell grass plains (<em>Astrebelia</em> spp.) on gilgai</td>
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<td></td>
<td>- Mitchell grass and Roebourne Plain grass (<em>Eragrostis xerophila</em>) plain on gilgai (typical type, heavily grazed)</td>
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<td>Priority 1</td>
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<td>Priority 1</td>
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<tr>
<td>Priority 3(iii)</td>
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<td>Priority 3(iii)</td>
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<thead>
<tr>
<th>21</th>
<th>Riparian flora and plant communities of springs and river pools with high water permanence of the Pilbara</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>The community includes flora with restricted distributions or populations that are highly disjunct or are major range extensions from northern and eastern Australia. These include, <em>Imperata cylindrica</em>, <em>Cladium procerum</em>, <em>Schoenus falcatus</em>, <em>Fimbristylis sieberiana</em> (P3), and <em>Livistona alfredii</em> (P4). In the Pilbara these taxa are almost exclusively restricted to the riparian zones of permanent wetlands with high soil moisture maintained by groundwater flows. Occurrences are disjunct with sites typically associated with groundwater discharge in gorge and valley wetlands that are often coupled with significant shading.</td>
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<td></td>
<td>Threats: hydrological change associated with mining in particular, altered fire regimes, weed invasion (<em>Cenchrus ciliaris</em>, <em>Passiflora foetida</em>), grazing.</td>
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<td>Priority 2</td>
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</tbody>
</table>
**Threats:** grazing, weed invasion, fragmentation

**Stony saline plains of the Mosquito Land System**
Described as saltbush community of the duplex plains - Mosquito Creek series (Nullagine). Includes patchy hummock grassland of *Triodia longiceps* with scattered *Maireana* and *Sclerolaena* spp. dissected by drainage lines typically dominated by shrubs including *Melaleuca eleutorostachya* and *Acacia bivenosa* occurring on saline red brown non-cracking clays with a mantle of quartz gravel and neutral subsurface soil material on level to undulating plains.

**Sand Sheet vegetation (Robe Valley)**
*Corymbia* *zygophylla* scattered low trees over *Acacia tumida var. pilbarensis, Grevillea eriostachya* high shrubland over *Triodia schinzii* hummock grassland. Other associated species include *Cleome uncifera, Heliotropium transforme, Indigofera boviperda* subsp. *boviperda*, and *Pilotus arthrolasius*.

Most northern example/expression of vegetation of Carnarvon Basin. Community is poorly represented type in the Pilbara Region, and not represented in the reserve system. Community contains many plant species that are at their northern limits or exist as disjunct populations. Vulnerable to invasion by weeds.

**Coastal dune native tussock grassland dominated by *Whiteochloa airoides***
Tussock grassland of *Whiteochloa airoides* occurs on the landward side of fore dunes, hind dunes or remnant dunes with white or pinkish white medium sands with marine fragments. There may be occasional *Spinitex longifolius* tussock or *Triodia epactia* hummock grasses and scattered low shrubs of *Olea* *sp. Kennedy Range* (*Scaevola spinoserosa, S. cunninghamii, Trianthema turgidifolia* and *Corchorus species* (*C. walcottii, C. laniflorus*). Occurs on Barrow Island and possibly some unaffected littoral areas in west Pilbara.

**Vegetation of sand dunes of the Hamersley Range/Fortescue Valley (previously ‘Fortescue Valley Sand Dunes’)**
These red linear iron-rich sand dunes lie on the Divide Land system at the junction of the Hamersley Range and Fortescue Valley; between Weel Wolli Creek and the low hills to the west. A small number are vegetated with *Acacia dictyophleba* scattered tall shrubs over *Crotalaria cunninghamii, Trichodesma zeylanicum var. grandiflorum* open shrubland. They are regionally rare, small and fragile and highly susceptible to threatening processes.

**Riparian vegetation including phreatophytic species associated with creek lines and watercourses of Rudall River**
Semi-permanent pools along courses of Rudall River.

**Horseflat land system of the Roebourne Plains**
(Does not include priority ecological communities ‘Roebourne Plains gilgai grasslands’ and the ‘Chenopod association of the Roebourne Plains area’)

The Horseflat Land System of the Roebourne Plains are extensive, weakly gilgaied clay plains dominated by tussock grasslands on mostly alluvial non-gilgai, red clay loams or heavy clay loams. Perennial tussock grasses include *Eragrostis xerophila* (Roebourne Plains grass) and other *Eragrostis spp., Eriachne spp. and Dichanthium spp.* The community also supports a suite of annual grasses including *Sorghum spp.* and rare *Astrebla* ssp. The community extends from Cape Preston to Balla Balla surrounding the towns of Karratha and Roebourne.

This community incorporates Unit 3 (Gilgai plains), Unit 5 (Alluvial Plains) with some Unit 7 (Drainage Depressions) described in Van Vreeswyk et al. 2004.

**Horseflat Land System of the Roebourne Plains**
(Previously named *Triodia* sp. Rohe River assemblages of mesas of the Robe Valley)

This community is typically restricted to mesas and cordillo landforms where the plant assemblages are dominated by or contain *Triodia* sp. Rohe River and are indicative of inverted landscapes; that is, where *Triodia* sp. Rohe River occurs in combination with species that are considered ‘out-of-context’ from their normal habitat. The community is a combination of *Triodia* sp. Rohe River with *Acacia pruinocarpa, A. citrinoviridis* on slopes or peaks of mesas. These two *Acacias* are generally found associated with Pilbara creeklines, and their occurrence is probably indicative of the genesis of the mesa surfaces in wetlands, then erosion of the landscape and ‘inversion of the landscape’ such that the mesa slopes and peaks that were previously low in the landscape become high points.

**Threats:** mining, associated infrastructure

**Priority**

- **Priority (i)**
- **Priority (ii)**
- **Priority (iii)**
<table>
<thead>
<tr>
<th>Number</th>
<th>Land System</th>
<th>Priority</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>*Barrabiddy Land System</td>
<td>3(iii)</td>
<td>Flood plains and broad drainage zones with shallow channelling, supporting tall acacia shrublands with some saltbush and tussock grasses. Bluebush/salt bush shrublands largely lost. Threats: over grazing</td>
</tr>
<tr>
<td>30</td>
<td>*Bibbigunna Land System</td>
<td>3(iii)</td>
<td>Clay flats with crabholes and sluggish drainage; Chenopod and tussock grass pastures. Characterised by heavy clay drainage swamps marked by finely etched meandering drainage typical of flat plains. Very slightly higher pebble strewn areas may occur within the swamps, but they are never very significant. Threats: over grazing</td>
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<tr>
<td>31</td>
<td>*Diorite Land System</td>
<td>3(iii)</td>
<td>Low bald or sparse Acacia shrublands on basaltic domes and low rough hills.</td>
</tr>
<tr>
<td>32</td>
<td>*Frederick Land System</td>
<td>3(iii)</td>
<td>Hardpan wash plains characterised by broad, reticulate mulga groves and Wanderrie banks supporting tall Acacia shrublands with grassy understorey Threats: over grazing</td>
</tr>
<tr>
<td>33</td>
<td>*Jingle Land System</td>
<td>3(iii)</td>
<td>Flood plains with Eucalypt woodlands and variable shrublands marginal to rivers Threats: over grazing, erosion</td>
</tr>
<tr>
<td>34</td>
<td>Kanjenjie Land System</td>
<td>3(iii)</td>
<td>Stony clay plains supporting snakewood shrublands with tussock grasses. Supports tall shrublands of mulga, snakewood and other acacias with understorey of low shrubs or perennial grasses. Some parts support tussock grasslands of Mitchell grass or Roebourne Plains grass with few shrubs Threats: over grazing</td>
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<tr>
<td>35</td>
<td>Kumina Land System</td>
<td>3(iii)</td>
<td>Ferricrete duricrust plains, uplands and plateaux remnants, relief up to 15 m. Duricrust plains and plateau remnants support hard spinifex grasslands.</td>
</tr>
<tr>
<td>36</td>
<td>*Marloo Land System</td>
<td>3(iii)</td>
<td>Weakly gilgaied alluvial plains with clay soils supporting tussock grasslands. Corresponds to Beards Vegetation Association 345 Threats: over grazing</td>
</tr>
<tr>
<td>37</td>
<td>Narbung Land System</td>
<td>3(iii)</td>
<td>Alluvial washplains with prominent internal drainage foci supporting snakewood and mulga shrublands with halophytic low shrubs Threats: over grazing</td>
</tr>
<tr>
<td>38</td>
<td>*Peedawarra Land System</td>
<td>3(iii)</td>
<td>A tributary plain drainage system - characteristically saline, with mixed Acacia shrublands and grasslands Threats: over grazing</td>
</tr>
<tr>
<td>39</td>
<td>*Scoop Land System</td>
<td>3(iii)</td>
<td>Stony plains with snakewood and chenopod shrublands. Threats: over grazing, erosion</td>
</tr>
<tr>
<td>41</td>
<td>Invertebrate assemblages (Nyeetberry Pool type)</td>
<td>4(ii)</td>
<td>Jimmawurrara Creek. Nyeetberry pool, Robe River. Permanent River Pool in the Pilbara (groundwater fed). Blind isopod collected from this site. Threats: mining and feral animals</td>
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<tr>
<td></td>
<td>KIMBERLEY</td>
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| 1 | **Perched spring-fed peat-based swamps on hillslopes of the Durack Range area**  
Assemblages of spring-fed wetlands on organic substrates perched on sandstone hill-
slopes in the Central Kimberley bioregion. Drainage lines are vegetated with a forest of
_Corymbia ptychocarpa_ (swamp bloodwood), _Grevillea pteridifolia, Melaleuca spp_,
_Pandanus spiralis_, and some _Livistona spp_ over the fern _Cyclusorus interruptus_ and the
climbing fern _Lygodium microphyllum_. Sedges occur in the understorey and clumps of
Reed Grass _Arundinella nepalensis_ are dominant in the understorey where the canopy is
more open. Also associated with the drainage lines are swamps vegetated by dense
sedges with grasses and herbs.  
Threats: cattle grazing and weeds. | Priority 1 |
| 2 | **Assemblages of Point Spring rainforest swamp**  
Closed canopy rainforest on freshwater swamps on alluvial floodplain soils in the east
Kimberley. At Point Spring the canopy is 17m high and the dominant tree species include
_Canarium australianum, Carallia brachiata, Euodia elleryana, Ficus racemosa, F. virens_ and
_Terminalia sericocarpa_.  
Threats: invasion by feral fish, impacts of stock, climate change and rising sea levels. | Priority 1 |
| 3 | **Assemblages of the wetlands associated with the organic mound springs on the tidal mudflats of the Victoria-Bonaparte Bioregion**  
East Kimberley (i.e. Brolga Spring, King Gordon Spring, Attack Spring, Long Swamp etc
on Carlton Hill Station). Large wetlands with Melaleuca forest with small patches of
rainforest on central mounds. Rainforest and paperbark forest associated with mound
springs and seepage areas of the Victoria Bonaparte coastal lands. | Priority 1 |
| 4 | **Monsoon vine thickets and Camaenid land snails of limestone ranges (Napier Range)**  
Unusual vine thicket community and Camaenid land snails assemblage located on
Napier Range.  
Threats: frequent fires leading to vegetation changes; loss of vine thickets and leaf litter | Priority 1 |
| 5 | **Oryza australiensis (wild rice) grasslands on alluvial flats of the Ord River**  
West side of Weaber Hills, Weaber Plain, Mantini Flats, Knox Creek. | Priority 1 |
| 6 | **Inland Mangrove (Avicennia marina) community of Salt Creek**  
Anna Plains Station, Mandora. | Priority 1 |
| 7 | **Plant assemblages on vertical sandstone surfaces**  
Eg. Two undescribed spinifex spp. at Bungles and Molly Spring, foxtail spinifex at
Cathedral Gorge and Thompsons Spring. Fire sensitive plants, fire regimes a threat. | Priority 1 |
| 8 | **Invertebrate community of Napier Range Cave**  
On Old Napier Downs, Karst No. KNI.  
Threats: Mine close by and tourist visitation. | Priority 1 |
| 9 | **Invertebrate assemblages of the cliff foot springs around Devonian reef system**  
Black soils.  
Threats: Springs drying up due to dewatering of karst systems. | Priority 1 |
| 10 | **Dwarf pindan heath community of Broome coast**  
Occurs between the racecourse and Gantheame Point lighthouse. Insufficient survey
outside of Broome townsite area to determine full extent.  
Threats: clearing, trampling, weed invasion, inappropriate fire regimes | Priority 1 |
| 11 | **Corymbia paractia dominated community on dunes**  
_Corymbia paractia_ behind dunes, Broome township area, Dampier Peninsula. Transition
zone where coastal dunes (with vine thickets) merge with Pindan (desert) vegetation.  
Also, port north of Broome.  
Threats: clearing, trampling, weed invasion, inappropriate fire regimes | Priority 1 |
| 12 | **Relict dune system dominated by extensive stands of Minyjurru (Mangarr - Sersalisia sericea)**  
Contains frequent mature (100 years +) _Sersalisia sericea_ or otherwise known as
Minyjurru. Minyjurru is a culturally important and renowned local bush Tucker species and
does not occur in such frequency and longevity in other locations. The community is
recorded as a _Eucalyptus, Sersalisia_ low woodland unit that occurs on parallel dunes in the
area south east of Gantheaume Point. The community also contains numerous
woodland species such as: _Erythropleum chlorostachys_ (ironwood), _Eucalyptus_ (_Corymbia_) _zygophylla_ (Broome bloodwood), _Hakea macrocarpa_ and _Corynotheca_ _micrantha_ (zig-zag Lilly). Some species are more reminiscent of desert and aridlands
country including: _Solanium cunninghammii_ (bush tomato), _Scaevola parvifolia, Goodenia sepalosa, Senna costata, Gyrostemon tepperi_ and _Triodia_ sp. (spinifex). The
extensive stands of Minyjurru occur in association with species more often found within
the nearby threatened ecological community- Monsoon vine thicket.  
Threats: weed invasion, grazing, inappropriate fire regime, proposed developments | Priority 1 |
<table>
<thead>
<tr>
<th></th>
<th>Vegetation Association 718 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grasslands, tall bunch grass savanna woodland, coolabah &amp; ghost gum over ribbon grass</td>
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<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<th>Vegetation Association 760 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Shrublands, pindan; Acacia tumida shrubland with scattered low bloodwood &amp; Eucalyptus setosa (not current name) over ribbon &amp; curly spinifex</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<tr>
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<th>Vegetation Association 33 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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<tbody>
<tr>
<td></td>
<td>Shrublands, pindan; acacia shrubland with eucalypt medium woodland over curley spinifex</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<th>Vegetation Association 767 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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<tbody>
<tr>
<td></td>
<td>Hummock grasslands, shrub steppe; Grevillea refracta over soft spinifex</td>
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<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<th>Vegetation Association 770 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Shrublands; Wattle thicket near Broome</td>
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<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<th>Vegetation Association 719 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hummock grasslands, shrub steppe; Acacia impressa (now A. monticola) over Triodia intermedia on stony laterite</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<th></th>
<th>Vegetation Association 915 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mosaic: Grasslands, high grass savanna woodland; grey box, Eucalyptus confertifolia (not current name) &amp; E. foelscheana (now C. foelscheana) over spinifex, white &amp; tall upland grass / Grasslands, high grass savanna low tree; terminalia &amp; bauhinia over upland tall grass</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<th>Vegetation Association 918 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hummock grasslands, low tree steppe; snappy gum over curly &amp; other spinifex</td>
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<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<thead>
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<th>Vegetation Association 872 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hummock grasslands, sparse tree steppe; snappy gum over hard spinifex Triodia wiseana &amp; T. intermedia on basalt and dolerite</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<th>Vegetation Association 1271 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Bare areas; claypans</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<tr>
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<thead>
<tr>
<th></th>
<th>Invertebrate community of Tunnel Creek</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Has unique fauna and has high visitation but insufficient data available to describe; currently only has one sample site (neighbouring sample areas eg Windjana Gorge contain different genera)</td>
</tr>
<tr>
<td>Priority 2</td>
<td></td>
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<tr>
<td>Priority</td>
<td>Vegetation Association</td>
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<tr>
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<td>------------------------</td>
</tr>
<tr>
<td>3(i)</td>
<td>Boab dominated assemblages of Devonian limestone reef complex (previously ‘Monsoon vine thickets of limestone ranges’)</td>
</tr>
<tr>
<td>3(iii)</td>
<td>Vegetation Association 807 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
</tr>
<tr>
<td>3(iii)</td>
<td>Vegetation Association 717 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 908 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 902 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 37 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 838 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 67 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 834 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 815 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 833 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td>3(iii)</td>
<td>Vegetation Association 759 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<td>Page</td>
<td>Vegetation Association 73 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</td>
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<tr>
<td></td>
<td>Grasslands, short bunch grass savanna, grass; salt water grassland (<em>Sporobolus virginicus</em>)</td>
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<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<td>Priority 3(iii)</td>
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<thead>
<tr>
<th>Page</th>
<th>Vegetation Association 850 as defined by John Beard’s vegetation mapping for the Kimberley (Beard 1979)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grasslands, tall bunch grass savanna, mitchell &amp; blue grass</td>
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<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<td></td>
<td>Priority 3(iii)</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Page</th>
<th>Camaenid land snail and vine thicket assemblage of limestone hills (Jeremiah and Ningbing Ranges)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A suite of species of land snail belonging to the family Camaenidae are only recorded from limestone ranges and outcrops of the East Kimberley. They occur in areas of limited Devonian reef with unusual vine thickets with a boab overstorey. All the Camaenid snails are short-range endemics, with known geographic ranges ranging from 0.01 ha to 5.6 km². Twenty critically endangered, four endangered and one vulnerable species occur in the Ningbing Ranges and Jeremiah Hills north of Kununurra.</td>
</tr>
<tr>
<td></td>
<td>Threats: frequent fires leading to vegetation changes (loss of vine thickets) and leaf litter and grazing impacts, especially on flat-lying fringing limestone pavement areas; mining.</td>
</tr>
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<td></td>
<td>Priority 3(iii)</td>
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</tbody>
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<thead>
<tr>
<th>Page</th>
<th>Assemblages of Disaster Bay organic mound springs</th>
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<tbody>
<tr>
<td></td>
<td>Organic mound springs on tidal flat with <em>Melaleuca acacioides</em>, <em>Timonius timon</em>, <em>Fandanus spiralis</em>, <em>Melaleuca vindiflora</em>, <em>Acacia neurocarpa</em> and <em>Lumnitzera racemosa</em> (mangrove) woodland with <em>Typha domingensis</em> and sedges, including <em>Schoenoplectus litoralis</em>.</td>
</tr>
<tr>
<td></td>
<td>Threats: soil compaction by cattle; potential changes in sea level due to climate change</td>
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<td></td>
<td>Priority 3(iii)</td>
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<thead>
<tr>
<th>Page</th>
<th>Lime Land System</th>
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<tbody>
<tr>
<td></td>
<td>Calcareous plains supporting soft and hard spinifex grasslands and melaleuca shrublands. (Dampierland IBRA region)</td>
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<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<td>Priority 3(iii)</td>
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<tr>
<th>Page</th>
<th>Bannerman Land System</th>
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<tbody>
<tr>
<td></td>
<td>Alluvial plains and flood out areas with occasional dunes supporting shrubby tussock grasslands and soft spinifex grasslands (land system is in the arid interior, Great Sandy Desert IBRA region)</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<td>Priority 3(iii)</td>
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<tr>
<th>Page</th>
<th>Wolfe Land System</th>
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<tbody>
<tr>
<td></td>
<td>Alluvial drainage tracts and channels supporting open eucalypt woodlands with tussock and hummock grasses (land system is actually in the arid interior, South Kimberley Interzone IBRA region)</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<td>Priority 3(iii)</td>
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<thead>
<tr>
<th>Page</th>
<th>Gourdon Land System</th>
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<tbody>
<tr>
<td></td>
<td>Sandplain and undulating lateritic country with steep coastal gullies supporting spinifex grasslands with scattered trees (Dampierland IBRA region)</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<td>Priority 3(iii)</td>
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<tr>
<th>Page</th>
<th>Legune Land System</th>
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<tbody>
<tr>
<td></td>
<td>Nearly flat grasslands behind the littoral fringe at the mouth of the Keep and Victoria Rivers (Victoria Bonaparte IBRA region).</td>
</tr>
<tr>
<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<tr>
<th>Page</th>
<th>Lowangan Land System</th>
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<tbody>
<tr>
<td></td>
<td>Sandy interfluves and lower sand plain, grassy woodlands and pindan (Dampierland IBRA region)</td>
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<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<th>Page</th>
<th>Lucas Land System</th>
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<tbody>
<tr>
<td></td>
<td>Gently undulating plains with sandy rises and dunes with hummock grasslands with desert oak and acacia shrubs (land system is actually in the arid interior, Tanami Desert IBRA region)</td>
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<td></td>
<td>Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, and weed invasion.</td>
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<td>Priority 3(iii)</td>
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<tr>
<td>Number</td>
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<td>47</td>
<td>Tanmurra Land System</td>
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<tr>
<td>48</td>
<td>Gladstone Land System</td>
</tr>
<tr>
<td>49</td>
<td>Parda Land System</td>
</tr>
<tr>
<td>50</td>
<td>Assemblages of Lolly Well Springs wetland complex</td>
</tr>
<tr>
<td>51</td>
<td>Argyle Land System</td>
</tr>
<tr>
<td>52</td>
<td>Dinnabung Land System</td>
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<tr>
<td>53</td>
<td>Eighty Mile Land System</td>
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<tr>
<td>54</td>
<td>Gogo Land System</td>
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<td>55</td>
<td>Gordon Land System</td>
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<td>56</td>
<td>Ivanhoe Land System</td>
</tr>
<tr>
<td>57</td>
<td>Lake Gregory Land System</td>
</tr>
<tr>
<td>58</td>
<td>Leopold Land System</td>
</tr>
</tbody>
</table>
### Nelson Land System
An area of undulating sparsely timbered country with powdery calcareous alluvial soil. Threats: extensive threatening processes acting at landscape scales, namely over grazing, and weed invasion (buffel grass). Many parts have suffered severe wind and gully erosion and loss of structure and floristics.  
*Priority 3(iii)*

### Roebuck Land System
Paleo-tidal coastal plains and tidal flats with saline soil supporting salt-water couch grasslands, samphire low shrublands, melaleuca thickets and mangroves. Threats: extensive threatening processes acting at landscape scales, namely frequent fires leading to loss of trees and shrubs, over grazing, and weed invasion (buffel grass).  
*Priority 3(iii)*

### Willeroo Land System
Gently undulating stony alluvial plains and low rises on basalt, supporting blue grass grasslands and northern box-bloodwood woodlands with Tippera tall grasses. Threats: extensive threatening processes acting at landscape scales, namely over grazing, altered fire regimes, and weed invasion (buffel grass).  
*Priority 3(iii)*

### Nimalaica clay pan community.
Nimalaica claypan is a unique, almost permanent, freshwater lake inland from Willie Creek, Broome. Threats: groundwater extraction, causeway construction, feral animals, expansion of township.  
*Priority 4(ii)*

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### MIDWEST

<table>
<thead>
<tr>
<th>Number</th>
<th>Vegetation Complex</th>
<th>Threats</th>
<th>Priority</th>
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<tbody>
<tr>
<td>1</td>
<td>Blue Hills (Mount Karara/Mungada Ridge/Blue Hills) vegetation complexes (banded ironstone formation)</td>
<td>mining</td>
<td>1</td>
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<tr>
<td>2</td>
<td>Gullewa vegetation complexes (banded ironstone formation)</td>
<td>mining</td>
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<td>3</td>
<td>Jack Hills vegetation complexes (banded ironstone formation)</td>
<td>mining</td>
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<tr>
<td>4</td>
<td>Lake Austin vegetation complexes (banded ironstone formation)</td>
<td>mining</td>
<td>1</td>
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<td>5</td>
<td>Minjar and Chulaar Hills vegetation complex (banded ironstone formation)</td>
<td>mining</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Mount Dugel/Mount Nairn vegetation complexes (banded ironstone formation)</td>
<td>mining</td>
<td>1</td>
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<tr>
<td>7</td>
<td>Mount Gibson Range vegetation complexes (banded ironstone formation)</td>
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<td>8</td>
<td>Mount Gould vegetation complexes (banded ironstone formation)</td>
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<tr>
<td>9</td>
<td>Mount Magnet vegetation complexes (banded ironstone formation)</td>
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<tr>
<td>10</td>
<td>New Forest (Including Twin Peaks and Barloueerie Range) vegetation complexes (banded ironstone formation)</td>
<td>mining</td>
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<tr>
<td>11</td>
<td>Robinson Range vegetation complexes (banded ironstone formation)</td>
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<td>1</td>
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<tr>
<td>12</td>
<td>Tallering Peak vegetation complexes (banded ironstone formation)</td>
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<td>1</td>
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<tr>
<td>13</td>
<td>Weld Range vegetation complexes (banded ironstone formation)</td>
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</tr>
<tr>
<td>14</td>
<td>Yalgoo (Gnows Nest/Wolla Wolla and Woolgah-Wadjingarra) vegetation complexes (banded ironstone formation)</td>
<td>mining</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Warriedar/Pinyalling/Walagnumming Hills vegetation complexes (banded ironstone formation)</td>
<td>mining</td>
<td>1</td>
</tr>
</tbody>
</table>
| 16 | Plant assemblages of the Moresby Range system  
Includes the *Melaleuca megacephala* and *Hakea pycnoneura* thicket on stony slopes, *Verticordia* dominated low heath, and *Allocasuarina campestris* and *Melaleuca uncinata* thicket on superficial laterite, on Moresby Range.  
Threats: clearing for infrastructure | Priority 1 |
| 17 | Lesueur-Coomallo Floristic Community M2 (*Melaleuca preissiana* woodland)  
Woodland dominated by *Melaleuca preissiana* along sandy drainage lines, with faithful species of *Anigozanthos pulcherrimus* and constant species of *Chamaescilia corymbosa*, *Petrophile brevifolia* and *Xanthorrhoea reflexa*. | Priority 1 |
| 18 | Lesueur-Coomallo Floristic Community DFGH  
Mixed species-rich heath on lateritic gravel with *Hakea erinacea*, *Melaleuca platyclax* and *Petrophile seminuda*: a fine scale mixture of four floristically-defined communities occurring on lateritic slopes. | Priority 1 |
| 19 | Kalbarri ironstone community  
Winter wet, mallee/Melaleuca over herbs. Dense shrubland when burnt. Surrounded by sandplain. Yerina springs and north Eurardy Station. Z-bend loop, Junga Dam. The taxon *Eremophila microtheca* (previously declared rare flora) occurs in community. | Priority 1 |
| 20 | Frankenia pauciflora low open shrublands in swales  
Community occurs on Tamala South grey-brown sand, on mid to lower slopes of Tamala Limestone ridges and some isolated rises on calcareous deep and shallow sands. Taxa include *Acacia racemosa*, *Stylobasium spathulatum*, *Frankenia pauciflora*, *Tetragonia implexicoma*, *Threikeldia diffusa*, *Zygophyllum fruticulosum*.  
Threats: grazing, land clearing | Priority 1 |
| 21 | Shrublands of the Northampton area, dominated by Melaleuca species over exposed Kockatea Shale  
| 22 | Badja calcrite groundwater assemblage type on Moore palaeodrainage on Badja Station  
Unique assemblages of invertebrates have been identified in the groundwater calcretes.  
Threats: mining | Priority 1 |
| 23 | Belele calcrite groundwater assemblage type on Murchison palaeodrainage on Belele Station  
Unique assemblages of invertebrates have been identified in the groundwater calcretes.  
Threats: mining | Priority 1 |
| 24 | Beringarra calcrite groundwater assemblage type on Murchison palaeodrainage on Beringarra Station  
Unique assemblages of invertebrates have been identified in the groundwater calcretes.  
Threats: mining | Priority 1 |
| 25 | Black Range South and Windsor groundwater calcrite assemblage type on Raeside and Murchison palaeodrainage on Lake Mason and Windsor Stations  
Unique assemblages of invertebrates have been identified in the groundwater calcretes.  
Threats: mining | Priority 1 |
| 26 | Bunnawarra calcrite groundwater assemblage type on Moore palaeodrainage on Bunnawarra Station  
Unique assemblages of invertebrates have been identified in the groundwater calcretes.  
Threats: mining | Priority 1 |
| 27 | Byro Central and Byro HS calcrite groundwater assemblage types on Murchison palaeodrainage on Byro Station  
Unique assemblages of invertebrates have been identified in the groundwater calcretes.  
Threats: mining | Priority 1 |
| 28 | Challa, Challa North and Wondinong calcrite groundwater assemblage type on Murchison palaeodrainage on Challa and Wondinong Stations  
Unique assemblages of invertebrates have been identified in the groundwater calcretes.  
Threats: mining | Priority 1 |
| 29 | Cogla Downs calcrite groundwater assemblage type on Murchison palaeodrainage on Yarrabubba Station  
Unique assemblages of invertebrates have been identified in the groundwater calcretes.  
Threats: mining | Priority 1 |
<table>
<thead>
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<th>Assemblage Type</th>
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<td>on Moore palaeodrainage on Gabyon Station</td>
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<td>Gifford Creek, Mangaroon, Wanna calcrete</td>
<td>Lyons palaeodrainage on Gifford Creek</td>
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<td>Lyons and Wanna Stations</td>
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</table>
Wagga Wagga and Yalgoo calcrete groundwater assemblage type on Yalgoo and Moore palaeodrainage on Wagga Wagga and Bunnawarra Stations

Unique assemblages of invertebrates have been identified in the groundwater calcretes.

Threats: mining

Priority 1

Windimurra calcrete groundwater assemblage type on Murchison palaeodrainage on Windimurra Station

Unique assemblages of invertebrates have been identified in the groundwater calcretes.

Threats: mining

Priority 1

Wooramel calcrete groundwater assemblage type on Wooramel palaeodrainage on Innouendy Station

Unique assemblages of invertebrates have been identified in the groundwater calcretes.

Threats: mining

Priority 1

Yarrabubba east calcrete groundwater assemblage types on Murchison palaeodrainage on Yarrabubba Station

Unique assemblages of invertebrates have been identified in the groundwater calcretes.

Threats: mining.

Priority 1

Yarrabubba west calcrete groundwater assemblage types on Murchison palaeodrainage on Yarrabubba Station

Unique assemblages of invertebrates have been identified in the groundwater calcretes.

Threats: mining.

Priority 1

Yoweragabbie calcrete groundwater assemblage type on Moore palaeodrainage on Yoweragabbie Station

Unique assemblages of invertebrates have been identified in the groundwater calcretes.

Threats: mining

Priority 1

*Claypans with mid dense shrublands of *Melaleuca lateritia* over herbs (classified as Claypans of the Swan Coastal Plain under EPBC Act)

Claypans (predominantly basins) usually dominated by a shrubland of *Melaleuca lateritia* occurring both on the coastal plain and the adjacent plateau. These claypans are characterized by aquatic (*Hydrocotyle lemnoides* – Priority 4) and amphibious taxa (e.g. *Glossostigma diandrum*, *Villarsia capitata* and *Eleocharis keigheryi* - DRF)

Priority 1

Critically Endangered TEC

Coastal sands dominated by *Acacia rostellifera, Eucalyptus oraria* and *Eucalyptus obtusiflora*.

Floristically, this community is similar to other *Acacia rostellifera* communities but is differentiated on structure, being dominated by mallee eucalypts. The community occurs on limestone ridges, in some swales in the coastal dunes between Cape Burney and Dongara, on the Greenough Alluvial Flats on limestone soil and near Tarcoola Beach. Some very small occurrences have also been recorded on the limestone scarp north of the Buller River.

Threats: Clearing

Priority 1

Hypersaline community number 2 (Stromatolites of Hamelin Pool)

Hypersaline tidal stromatolite aragonite community formed by trapping and binding by a variety of cyanobacteria and eukaryotes.

Priority 1

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

Mostly confined to Quindalup Dunes and Spearwood Dunes from Jurien Bay to the Sabina River, with outliers along some rivers. Tuart is the key dominant canopy species however Tuart communities comprise a variety of flora and fauna assemblages. Flora commonly occurring with Tuart include Peppermint (*Agonis flexuosa*), *Banksia attenuata*, *Banksia grandis*, *Allocasuarina fraseriana*, *Xylomelum occidentale*, *Macrozamia niederi*, *Xanthorrhoea preissii*, *Spyridium globulosum*, *Templetonia retusa* and *Diplolaena dampieri*.

Threats: Land clearing, weed invasion, grazing, disease, altered fire regimes, hydrological change

Priority 3(iii)

*Granite outcrop pools with endemic aquatic fauna*

Freshwater pools formed on granite outcrops that may persist for several months and house a variety of aquatic invertebrates, some of which are endemic to south-west WA. Some examples include cladocerans, ostracods, copepods, rotifers, oligochaetes and molluscs.

Priority 3(i)
**Threats:** over grazing, weed invasion (buffel grass)

* *Barrabiddy Land System*

*Priority 3(iii)*

Flood plains and broad drainage zones with shallow channelling, supporting tall acacia shrublands with some saltbush and tussock grasses. Bluebush/salt bush shrublands largely lost.

Threats: over grazing, weed invasion (buffel grass)

*Priority 3(iii)*

**Tecoma dominated woodlands of the Swan Coastal Plain IBRA region**

Canopy is most commonly dominated or co-dominated by *Banksia attenuata* and/or *B. menziesii*. Other Banksia species that can dominate in the community are *B. priornotes* or *B. ilicifolia*. It typically occurs on well drained, low nutrient soils on sandplain landforms, particularly deep Bassendean and Spearwood sands and occasionally on Quindalup sands; it is also common on sandy colluvium and aeolian sands of the Ridge Hill Shelf, Whitcher Scarp and Dandaragan Plateau and, in other less common scenarios.

*Priority 3(iii)*

**Posidonia australis complex seagrass meadows**

The community consists of the assemblage of plants, animals and micro-organisms associated with seagrass meadows dominated by species from the *Posidonia australis* complex. It occurs as continuous to patchy monospecific and multispecies seagrass meadows dominated by species from the *Posidonia australis* complex - *P. angustifolia*, *P. australis* and *P. sinuosa*. It is the climax community of a successional process that occurs over decades to centuries. The community is distributed in temperate Australian waters between Shark Bay (25°S) on the west coast, across southern Australia to Wallis Lake (32°S) on the east coast, around Bass Strait islands and along the north coast of Tasmania.

Threats: decline in water quality, coastal infrastructure development and damage caused by vessels and moorings. Climate change is anticipated to significantly impact on seagrasses over time due to their particular sensitivity to changes in factors such as temperature, salinity, water clarity, pH and sea level.

*Priority 3(i)*

**Temperate Coastal Saltmarsh**

The community consists of the assemblage of plants, animals and micro-organisms associated with saltmarsh in coastal regions of sub-tropical and temperate Australia (south of 23°S latitude). The habitat is coastal areas under tidal influence. In southern latitudes saltmarsh are the dominant habitat in the intertidal zone and often occur in association with estuaries. It is typically restricted to the upper intertidal environment, generally between the elevation of the mean high tide, and the mean spring tide. The community consists mainly of salt-tolerant vegetation (halophytes) including: grasses, herbs, reeds, sedges and shrubs. Succulent herbs and grasses generally dominate and vegetation is generally <0.5m tall with the exception of some reeds and sedges. Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms and cyanobacterial mats. Saltmarsh consists of many vascular plant species but is dominated by relatively few families. There is also typically a high degree of endemism at the species level. The two most widely represented coastal saltmarsh plant families are the Chenopodiaceae and Poaceae. Four structural saltmarsh forms are currently recognised based on dominance of a particular vegetation type:

- dominance by succulent shrubs (e.g. *Tecticornia*)
- dominance by grasses (e.g. *Sporobolus virginicus*)
- dominance by sedges and grasses (e.g. *Juncus kraussii, Gahnia trifida*)
- dominance by herbs (e.g. low-growing creeping plants such as *Wilsonia backhousei, Samolus repens, Schoenus nitens*)

*Priority 3(iii)*

**Eucalypt woodlands of the Western Australian Wheatbelt**

Eucalypt-dominated woodlands in the Western Australian Wheatbelt region as defined by the IBRA Avon Wheatbelt 1 and 2 and Western Mallee subregions with the specific exceptions of: woodlands and forests dominated by Jarrah (*E. marginata*) or Marri (*Corymbia calophylla*) where they occur without York Gum present; and non-woodland communities dominated by eucalypts, specifically those dominated by eucalypts with a mallee growth form. Community is defined primarily by its structure as a woodland. The presence in the canopy layer of eucalypt trees - most commonly salmon gum (*Eucalyptus salmonophloia*), York gum (*Eucalyptus loxophleba*), red mallee (*Eucalyptus longicornis*) or gimlet (*Eucalyptus salubris*) defines the Wheatbelt woodlands. Several of the other emergent eucalypt species which may be present as a defining species (e.g. Kondinin blackbutt (*E. kondinensis*), *E. myriadenia*, salt river gum (*E. sargentii*), silver mallet (*E. ornata*) and mallet (*E. singularis*) are found only in the Western Australian Wheatbelt.

Threats: altered hydrology, grazing, altered fire regimes, vegetation clearing, exotic species, soil cultivation and fertilization.

*Priority 3(iii)*

**Eucalypt woodland of the Western Australian Wheatbelt**

Eucalypt-dominated woodlands in the Western Australian Wheatbelt region as defined by the IBRA Avon Wheatbelt 1 and 2 and Western Mallee subregions with the specific exceptions of: woodlands and forests dominated by Jarrah (*E. marginata*) or Marri (*Corymbia calophylla*) where they occur without York Gum present; and non-woodland communities dominated by eucalypts, specifically those dominated by eucalypts with a mallee growth form. Community is defined primarily by its structure as a woodland. The presence in the canopy layer of eucalypt trees - most commonly salmon gum (*Eucalyptus salmonophloia*), York gum (*Eucalyptus loxophleba*), red mallee (*Eucalyptus longicornis*) or gimlet (*Eucalyptus salubris*) defines the Wheatbelt woodlands. Several of the other emergent eucalypt species which may be present as a defining species (e.g. Kondinin blackbutt (*E. kondinensis*), *E. myriadenia*, salt river gum (*E. sargentii*), silver mallet (*E. ornata*) and mallet (*E. singularis*) are found only in the Western Australian Wheatbelt.

Threats: altered hydrology, grazing, altered fire regimes, vegetation clearing, exotic species, soil cultivation and fertilization.

*Priority 3(iii)*

**Subtropical and Temperate Coastal Saltmarsh**

Consists of the assemblage of plants, animals and micro-organisms associated with saltmarsh in coastal regions of sub-tropical and temperate Australia (south of 23°S latitude). The habitat is coastal areas under tidal influence. In southern latitudes saltmarsh are the dominant habitat in the intertidal zone and often occur in association with estuaries. It is typically restricted to the upper intertidal environment, generally between the elevation of the mean high tide, and the mean spring tide. The community consists mainly of salt-tolerant vegetation (halophytes) including: grasses, herbs, reeds, sedges and shrubs. Succulent herbs and grasses generally dominate and vegetation is generally <0.5m tall with the exception of some reeds and sedges. Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms and cyanobacterial mats. Saltmarsh consists of many vascular plant species but is dominated by relatively few families. There is also typically a high degree of endemism at the species level. The two most widely represented coastal saltmarsh plant families are the Chenopodiaceae and Poaceae. Four structural saltmarsh forms are currently recognised based on dominance of a particular vegetation type:

- dominance by succulent shrubs (e.g. *Tecticornia*)
- dominance by grasses (e.g. *Sporobolus virginicus*)
- dominance by sedges and grasses (e.g. *Juncus kraussii, Gahnia trifida*)
- dominance by herbs (e.g. low-growing creeping plants such as *Wilsonia backhousei, Samolus repens, Schoenus nitens*)

*Priority 3(iii)*

**Austin Land System**

Saline stony plains with low rises and drainage foci supporting low halophytic shrublands with scattered mulla; occurs mainly adjacent to lakes Austin and Annean below greenstone hill systems.

*Priority 3(iii)*

**Barrabiddy Land System**

Flood plains and broad drainage zones with shallow channelling, supporting tall acacia shrublands with some saltbush and tussock grasses. Bluebush/salt bush shrublands largely lost.

Threats: over grazing, weed invasion (buffel grass)

*Priority 3(iii)*
<table>
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<tr>
<th>Page</th>
<th>Land System</th>
<th>Priority</th>
<th>Description</th>
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<tbody>
<tr>
<td>79</td>
<td>*Bibbigunna Land System</td>
<td>3(iii)</td>
<td>Clay flats with crabholes and sluggish drainage; Chenopod and tussock grass pastures. Characterised by heavy clay drainage swamps marked by finely etched meandering drainage typical of flat plains. Very slightly higher pebble strewn areas may occur within the swamps, but they are never very significant.</td>
<td>over grazing</td>
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<tr>
<td>80</td>
<td>Blech Land System</td>
<td>3(iii)</td>
<td>Characterised by large sandy banks up to 1.6 km long and 1 km wide connected by several arcuate bands. Interbanks occur between sandy banks and may coalesce into discernible through drainage plains in some areas.</td>
<td>over grazing, erosion</td>
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<td>81</td>
<td>Breberle Land System</td>
<td>3(iii)</td>
<td>Level saline drainage plains adjacent to ephemeral lakes, claypans and swampy drainage foci with sandy margins and occasional sand dunes; supports tall Acacia shrublands and other fringing shrublands with zonations of perennial grasses and halophytes.</td>
<td>over grazing</td>
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<tr>
<td>82</td>
<td>Bubbagundy Land System</td>
<td>3(iii)</td>
<td>Very large and extensive sand banks which approach sandplain in quality and expression of vegetation. A lack of through drainage leaves large sand masses, sand banks and interbanks as the three constituent elements of this type</td>
<td>over grazing</td>
</tr>
<tr>
<td>83</td>
<td>Clere Land System</td>
<td>3(iii)</td>
<td>Associated with tributary drainage plains and floodplains marginal to rivers and below flood-outs of creeks on plains. Characterised by extensive gullying, sand bank movement and encroachment into bordering rangeland types.</td>
<td>over grazing, erosion</td>
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<tr>
<td>84</td>
<td>Cullawarra Land System</td>
<td>3(iii)</td>
<td>Undulating rocky plains above the central sector of the Zuytdorp Cliffs supporting sparse low shrublands of saltbush with patches of taller Acacia and Melaleuca species.</td>
<td>over grazing</td>
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<tr>
<td>85</td>
<td>*Diorite Land System</td>
<td>3(iii)</td>
<td>Low baird or sparse Acacia shrublands on basaltic domes and low rough hills.</td>
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<tr>
<td>86</td>
<td>*Frederick Land System</td>
<td>3(iii)</td>
<td>Hardpan wash plains characterised by broad, reticulate mulga groves and Wanderrie banks supporting tall Acacia shrublands with grassy understorey.</td>
<td>over grazing</td>
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<tr>
<td>87</td>
<td>Garry Land System</td>
<td>3(iii)</td>
<td>Low plains with outcropping calcrete rises; a very local system supporting tall shrublands of mulga and some low shrublands of saltbush and bluebush.</td>
<td>over grazing</td>
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<tr>
<td>88</td>
<td>Gneudna Land System</td>
<td>3(iii)</td>
<td>Plains with calcareous soils and parallel bands of siltstone and limestone outcrop, supporting sparse shrublands of acacia and bluebush.</td>
<td>over grazing</td>
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<td>89</td>
<td>Highway Land System</td>
<td>3(iii)</td>
<td>Plains supporting York gum woodlands, acacia shrublands and mixed low shrubs.</td>
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<td>90</td>
<td>*Jingle Land System</td>
<td>3(iii)</td>
<td>Flood plains with Eucalypt woodlands and variable shrublands marginal to rivers.</td>
<td>over grazing, erosion</td>
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<tr>
<td>91</td>
<td>Lyell Land System</td>
<td>3(iii)</td>
<td>Sandplains with reticulate dunes and saline interdunal plains supporting tall and low acacia shrublands and saltbush.</td>
<td>over grazing, weed invasion (buffel grass)</td>
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<tr>
<td>92</td>
<td>*Marloo Land System</td>
<td>3(iii)</td>
<td>Weakly gilgaied alluvial plains with clay soils supporting tussock grasslands. Corresponds to Beards Vegetation Association 345</td>
<td>over grazing</td>
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<td>93</td>
<td>Outcamp Land System</td>
<td>3(iii)</td>
<td>Flat tributary alluvial plains with saline clayey soils, supporting degraded bluebush shrublands and mulga; a very minor system confined to far south-west.</td>
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<td>94</td>
<td>*Peedawarra Land System</td>
<td>3(iii)</td>
<td>A tributary plain drainage system - characteristically saline, with mixed Acacia shrublands and grasslands</td>
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<td>Priority</td>
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<tr>
<td>3(iii)</td>
<td>Salune Land System</td>
<td>Alluvial plains and saline flats interspersed with undulating sandy banks and low dunes; tall acacia shrublands and low shrublands of bluebush, saltbush and samphire.</td>
<td>over grazing</td>
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<td>3(iii)</td>
<td>Scoop Land System</td>
<td>Stony plains with snakewood and chenopod shrublands.</td>
<td>over grazing, erosion</td>
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<td>3(iii)</td>
<td>Tamala Land System</td>
<td>Plains with a thin covering of sand over limestone, interspersed with stony rises; former saltbush and acacia shrublands, widely degraded and now replaced by winter pastures of exotic annuals</td>
<td>weed invasion (exotic annuals)</td>
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<td>3(iii)</td>
<td>Trillbar Land System</td>
<td>Gently sloping stony plains with low rises of metamorphic rocks and gilgaied drainage foci; supports more or less saline shrublands of snakewood, mulga, bluebush and samphire with patches of tussock grassland</td>
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<td>3(iii)</td>
<td>Yagahong Land System</td>
<td>Rough greenstone ridges, hills and cobble-strewn footslopes supporting mulga shrublands</td>
<td>over grazing</td>
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<td>4(ii)</td>
<td>Invertebrate assemblages of Edithana Pool</td>
<td>High quality river pool on the Lyons River. High invertebrate diversity.</td>
<td>cattle and Tilapia</td>
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<td>4(ii)</td>
<td>Springs of the Western Kennedy Ranges</td>
<td>Spring in the Kennedy Range. Has rich representative invertebrate community.</td>
<td>feral goats and mining.</td>
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<td>4(ii)</td>
<td>Invertebrate assemblages of Callytharra Spring, Wooramel River</td>
<td>Permanent Spring on the Wooramel River. High aquatic invertebrate diversity.</td>
<td>stock and goats.</td>
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<td>4(ii)</td>
<td>Lake Macleod invertebrate assemblages</td>
<td>Saline aquatic community with strong marine affinities with particularly rich copepod elements - is effectively a well developed, very rich birrida community with strong marine and terrestrial components with especially rich hypactacoid community. Distinctive but lacks threats.</td>
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<td>4(i)</td>
<td>Plant assemblages (spinifex dominated) of sand dune mesa topping the Kennedy Range National Park</td>
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### GOLDFIELDS

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<td>Booylgoo Range vegetation complexes (banded ironstone formation)</td>
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<td>Cashmere Downs vegetation complexes (banded ironstone formation)</td>
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<td>Hunt Range vegetation complexes (banded ironstone formation)</td>
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<td>Koolyanobbing vegetation complexes (banded ironstone formation)</td>
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<td>Lake Mason vegetation complexes (banded ironstone formation)</td>
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<td>Lee Steere Range vegetation complexes (banded ironstone formation)</td>
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<td>Mount Forrest - Mt Richardson (Bulga Downs) vegetation complex (banded ironstone formation)</td>
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<td>Mount Jackson Range vegetation complex (banded ironstone formation)</td>
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<td>Perrinvale/Walling vegetation complexes (banded ironstone formation)</td>
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<td>Violet Range (Perseverance Greenstone Belt) vegetation complexes (banded ironstone formation)</td>
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<td>Wiluna West vegetation complexes (banded ironstone formation)</td>
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<td>Windarling Ranges vegetation complex (banded ironstone formation)</td>
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<td>Albion Downs calcrete groundwater assemblage type on Carey palaeodrainage on Albion Downs Station</td>
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<td>Banjawarn and Melrose (Lake Darlot) calcrete groundwater assemblage type on Carey palaeodrainage on Banjawarn and Melrose Stations</td>
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<td>Barwidgee calcrete groundwater assemblage type on Carey palaeodrainage on Barwidgee Station</td>
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<td>Cunyu SBF and Cunyu Sweetwater calcrete groundwater assemblages types on Nabbere palaeodrainage on Cunyu Station</td>
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<td>Dandaraga calcrete groundwater assemblage type on Raeside palaeodrainage on Dandaraga Station</td>
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<td>Glenayle and Carnegie Downs calcrete groundwater assemblage type on Burnside palaeodrainage on Glenayle Station</td>
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<td>Johnston Range vegetation complexes (banded ironstone formation)</td>
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<td>Lake Violet south and Lake Violet calcrete groundwater assemblage types on Carey palaeodrainage on Millbillilie Station</td>
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<td>Laverton Downs calcrete groundwater assemblage type on Carey palaeodrainage on Laverton Downs Station</td>
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<td>Unique assemblages of invertebrates have been identified in the groundwater</td>
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<td>Threats: mining</td>
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<td>49</td>
<td>Yeeliirrie calcrete groundwater assemblage type on Carey palaeodrainage on</td>
<td>Priority 1</td>
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<td>50</td>
<td>Yuinnery calcrete groundwater assemblage types on Raeside palaeodrainage on</td>
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<td>Threats: mining</td>
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<td>51</td>
<td>Helena and Aurora Range vegetation complexes (banded ironstone formation)</td>
<td>Priority 1</td>
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<td>52</td>
<td>Mount Manning Range vegetation complex (banded ironstone formation)</td>
<td>Priority 1</td>
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<tr>
<td>53</td>
<td>Banded Ironstone Hills with Dryandra arborea</td>
<td>Priority 1</td>
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<td></td>
<td>On Unallocated Crown Land in excellent condition north-west Menzies area.</td>
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<td>Threats: mining</td>
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<tr>
<td>54</td>
<td>Yellow sandplain vegetation of the Great Victoria Desert with diverse vertebrate fauna</td>
<td>Priority 3(iii)</td>
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<td></td>
<td>Undulating yellow sandplain with an open upper stratum of Eucalyptus</td>
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<td>gongylocarpa, with or without a diverse mallee stratum of E. youngiana, E.</td>
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<td>mannensis, E. platycorys, over a sparse, though diverse shrubs over hummock</td>
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<td>grasses, Triodia desertorum or T. scariosa. Very high vertebrate diversity</td>
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<td></td>
<td>and unusual combinations of species (mixture of south-western and arid</td>
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<td>inter zones).</td>
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<td>Threats: mining</td>
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<td>Page</td>
<td>Land System</td>
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<tr>
<td>55</td>
<td>Yilgarn Hills vegetation complex</td>
<td>3(iii)</td>
<td>mining</td>
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<tr>
<td>56</td>
<td>Mount Belches <em>Acacia quadrimarginae</em> / <em>Ptilotus obovatus</em> banded ironstone community</td>
<td>3(iii)</td>
<td>mining coexistence with the reserve.</td>
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<tr>
<td>57</td>
<td>Dulaiggin Ridge vegetation complex</td>
<td>3(iii)</td>
<td>mining coexistence with the reserve.</td>
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<tr>
<td>58</td>
<td>Mount Jumbo Range vegetation complex</td>
<td>3(iii)</td>
<td>mining coexistence with the reserve.</td>
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<td>59</td>
<td>Mount Linden Range banded ironstone ridge vegetation complex</td>
<td>3(iii)</td>
<td>mining coexistence with the reserve.</td>
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<tr>
<td>60</td>
<td>Boonderoo Land System</td>
<td>3(iii)</td>
<td>mining coexistence with the reserve.</td>
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<td>61</td>
<td>Cundlegum Land System</td>
<td>3(iii)</td>
<td>mining coexistence with the reserve.</td>
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<td>62</td>
<td>Emu Land System</td>
<td>3(iii)</td>
<td>mining coexistence with the reserve.</td>
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<tr>
<td>63</td>
<td>Ponton Land System</td>
<td>3(iii)</td>
<td>mining coexistence with the reserve.</td>
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<td><strong>SOUTH WEST</strong></td>
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<td>1</td>
<td><em>Reedia spathacea - Empodisma gracillimum – Sporadanthus rivularis</em> dominated floodplains and paluslopes of the Blackwood Plateau</td>
<td>1</td>
<td>Diverse closed sedges and rushes to 1.5 m in height of <em>Reedia spathacea/Empodisma gracillimum/Sporadanthus rivularis</em> with open low shrubs to open scrub of <em>Taxandria linearifolia</em>.</td>
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<td>2</td>
<td>Granite community dominated by the shrubs <em>Calothamnus graniiticus</em> subsp. <em>graniticus</em>, <em>Acacia cyclops</em>, <em>A. saligna</em>, <em>Hakea oleifolia</em>, <em>H. prostrata</em> and <em>Jacksonia furcellata</em> (Sugar Loaf Rock)</td>
<td>1</td>
<td>Shrubland (0.5-2 m) growing on shallow soils derived from granite gneiss on the Cowaramup and Gracetown (Willyabrup Exposed Rocky Slopes land unit) soil landscape systems. The dominant species include: <em>Allocasuarina humilis</em>, <em>Acacia cyclops</em>, <em>A. littorea</em>, <em>A. pulchella</em>, <em>A. rostellifera</em>, <em>Calothamnus graniiticus</em>, <em>Darwinia citriodora</em>, <em>Corymbia calophylla</em>, <em>Daviesia horrida</em>, <em>D. preissii</em>, <em>Dryandra lindleyana</em>, <em>D. erinacea</em>, <em>Hakea prostrata</em>, <em>H. trifurcata</em>, <em>Spyridium globulosum</em>, <em>Pimelea ferruginea</em>, and <em>Xanthorrhoea preissii</em>.</td>
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<td>3</td>
<td><em>Corymbia calophylla</em>, <em>Melaleuca rhiaphyllia</em>, <em>Banksia littoralis</em>, <em>Eucalyptus rudis</em>, <em>Agonis flexuosa</em> low open forest with seasonal subsoil moisture of the Dunsborough area</td>
<td>1</td>
<td><strong>Corymbia calophylla</strong>, <em>Agonis flexuosa</em>, <em>Banksia littoralis</em>, <em>Melaleuca rhiaphyllia</em> low open forest over <em>Viminea juncea</em>, <em>Jacksonia furcellata</em> tall open shrubland over <em>Xanthorrhoea preissii</em>, <em>Pericalymma elliptica</em> shrubland over <em>Hibbertia</em> spp, <em>Astroloma pallidum</em>, <em>Leucopogon australis</em> open low heath over <em>Hypolaena pubescens</em>, <em>Mesopelaena tetragona</em>, <em>Lepidosperma</em> spp. dense sedges over <em>Amphipogon</em> and <em>Thysanotus</em> spp, open herbs. The community occurs on sandy loam soils at the southern tip of the Swan Coastal Plain. Threats: urban development, weeds and recreation impacts, fire and changes in hydrology.</td>
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<td>4</td>
<td>Tall closed sedgeland on shallow soils derived from granite gneiss on the Leeuwin Naturaliste Ridge (‘Sedgelands of the Cape Leeuin Spring’)</td>
<td>1</td>
<td>Tall closed sedgeland of <em>Juncus krausii</em>, <em>Baumea juncea</em>, and <em>Schoenoplectus validus</em>; tall closed sedgeland of <em>Typa orientalis</em>, over <em>S. validus</em>, <em>Lepidosperma gladiatum</em> and <em>Muehlenbeckia adpressa</em>; low closed sedgeland of <em>Ficina nodosa</em> and <em>Baumea juncea</em> on shallow soils derived from granite gneiss on the Leeuwin Naturaliste Ridge.</td>
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<td>5</td>
<td><em>Eucalyptus cornuta</em>, <em>Agonis flexuosa</em> and <em>Eucalyptus decipiens</em> forest on deep yellow-brown siliceous sands over limestone (‘Busselton Yate community’)</td>
<td>1</td>
<td>Threats: land clearing, fragmentation, weed invasion.</td>
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- **Priority 1** indicates high priority for conservation action.
<table>
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<th>Page</th>
<th>Community Description</th>
<th>Priority</th>
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| 6    | **Eucalyptus rudis, Corymbia calophylla, Agonis flexuosa** Closed Low Forest (near Busselton)  
A low lying Spearwood Dune plant community associated with shallow sandy soils over Tamala limestone that in places is exposed at the surface. The plant community on these soils supports a unique mixture of wetland and upland flora. Typically low forest dominated by *Eucalyptus rudis, Eucalyptus calophylla, Agonis flexuosa* over a diverse understorey including *Hibbertia hypericoides, Logania vaginalis, Conospermum caeruleum, Agrostochiron hirsutum* and *Lomandra micrantha*. Other associated species include *Eucalyptus decipiens, Melaleuca rhiophylla, Banksia littoralis, Hakea varia* and the sedge species *Baumea juncea* and *Gahnia trifida*. | Priority 1 |
| 7    | **Eucalyptus patens, Corymbia calophylla, Agonis flexuosa** Closed Low Forest (near Busselton)  
*Eucalyptus patens* on loamy brown sands over limestone. Species present include *Eucalyptus patens, Corymbia calophylla* and *Agonis flexuosa* over understorey species including *Boissiera linophylla, Hibbertia hypericoides, Gastrolobium praemorsum, Leucopogon propinquus, Phyllanthus calycinus, Lomandra micrantha, Lepidosperma longitudinale, Mesomelea tetragona, Cyathochaeta avennacea* and *Tetaria octandra*. The community is likely to have similarities to community type 1b ‘Southern Corymbia calophylla woodlands on heavy soils’. | Priority 1 |
| 8    | **Central Whicher Scarp Mountain Marri woodland (Whicher Scarp woodlands of grey/white sands community A1)**  
(A component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC. Keighery et al., 2008 indicates B.attenuata is a dominant))  
Located on Whicher Scarp mid slopes. The taxa that identify the group include: *Ricinocarpus aff. cyanescens, Hibbertia ferruginea, Platyacae filiformis, Conospermum capitatum subsp. gibratrum, Thysanotus arbuscular, Schoenus brevisetis, Phlebocarya filifolia, Leucopogon glabellus, Pimelea rosea subsp. rosea, Adenanthes obovatus, Stylium carnosum* and *Gompholobium capitatum*.  
Note: This community should be cross-referenced with ‘Eucalyptus haematoxylon - Eucalyptus marginata woodlands on Whicher foothills (community type 1a)’, see below. | Priority 1 |
| 9    | **West Whicher Scarp Banksia attenuata woodland (Swan Coastal Plain centred woodlands of grey/white sands community B2)**  
(A component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC. Keighery et al., 2008 indicates B.attenuata is a dominant)  
This community type occurs in grey sand in the West Whicher Scarp. It is similar to the open Banksia attenuata woodlands with Peppermint (*Agonis flexuosa*) from the grey sands of the West Whicher Scarp. The type is species poor. Taxa include: *Allocasuarina fraseriana, Banksia attenuata, Xylomelum occidentale, Bossiaea praetermissa, Calytrix flavescens, Gompholobium tomentosum, Hibbertia hypericoides, Hovea stricta, Hypocalymma robustum, Kunzea rostrata, Petrophile linearis* and a suite of grasses, herbs and sedges. | Priority 1 |
| 10   | **Central Whicher Scarp Jarrah woodland (Whicher Scarp woodlands of coloured sands and laterites community C1)**  
Occurs on coloured sands on moderate to gentle slopes of the Central Whicher Scarp. The community has strong representation of a less common group of southern taxa including: *Podocarpus drouyanus, Luxocarya cinerea, Allocasuarina fraseriana, Drosera stolonifera, Amperea ericoideae, Thysanotus triandrus, Cyathochaeta equitans, Hibbertia quadricolor, Comesperma calymega, Lepidosperma pubisquameum, Conospermum paniculatum, Acacia preissiana* and *Hibbertia ferruginea*.  
Note: This community should be cross-referenced with ‘Eucalyptus haematoxylon - Eucalyptus marginata woodlands on Whicher foothills (community type 1a)’, see below. | Priority 1 |
| 11   | **Whitcher Scarp Jarrah woodland of deep coloured sands (Whicher Scarp woodlands of coloured sands and laterites community C2)**  
(A component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC. Keighery et al., 2008, indicates B.attenuatais generally present and often dominant)  
Community is found scattered through the Central and North Whicher Scarp on midslopes on deep, generally coloured sands rarely associated with laterites. Community has a strongest representation of common sand taxa especially *Hypolaena exsulca, Dasypogon bresiliifolius, Stirlingia latifolia, Petrophile linearis, Melaleuca thyroides* and *Adenanthes meei*.  
Note: This community should be cross-referenced with ‘Eucalyptus haematoxylon - Eucalyptus marginata woodlands on Whicher foothills (community type 1a)’, see below. | Priority 1 |
Dardanup Jarrah and Mountain Marri woodland on laterite (Whicher Scarp woodlands of coloured sands and laterites community C5)
Community located on unusual surface of quartzite and laterite in Dardanup forest which is an area where the Whicher Scarp, Blackwood Plateau and Darling Scarp interface. It is notable in the presence of uncommonly encountered laterite taxa including: Lomandra sp. Dardanup, Lomandra spartea, Olax benthamianna, Andersonia heterophylla, Hemigenia incana, Acacia varia var. varia, Daviesia angulata, Pimelea preissii, and also Lomandra britannii, Xanthorrhoea acaenthostachya, Dryandra armata var. armata, Hakea stenocarpa, Stachystemon vermicularia, Lambertia multiflora var darlingensis, Petrophile striata and Pimelea sulphurea.
Note: this community should be cross-referenced with “Eucalyptus haematoxyylon - Eucalyptus marginata woodlands on Whicher foothills (community type 1a’), see below.

Sabina River Jarrah and Marri woodland (Whicher Scarp community F1)
Community in Sabina River alluvial fan where the Sabina River meets the Swan Coastal Plain. It is characterised by a suite of wetland taxa of restricted occurrence in the Whicher Scarp. Mirbelia dilatata, Lomandra pauciflora, Tremandra diffusa, Tremandra stelligera, Trymalium floribundum subsp. trifidum and Gymnopus aristata var. occidentalis. Other significant taxa in the community are: Hovea elliptica, Leucopogon verticillatus, and Darwinia citriodora.

Shrublands of near permanent wetlands in creeklines of the Whicher Scarp (Whicher Scarp community G2)
Community is species poor and included the following taxa: Astartea scopania, Homalospermum firmum, Taxandria fragrans MS, *Anthoxanthum odoratum, Baumea rubingosa, Cyathochaeta teretifolia, Isolepis cernua, Taraxis grossa.

Swan Coastal Plain Paluslope Wetlands
These wetlands are very wet all year round and are associated with areas of groundwater seepage from the sandy low hills at the base of the Whicher Scarp. At times these wetlands are contiguous with areas of Pinjarra Plain wetlands, and the wetlands of the two landforms merge. Combinations of the following species are typically found in the type: Melaleuca preissiana, Taxandria lineanifolia, Taxandria fragrans, Melaleuca incana, and Cyathochaeta teretifolia. Other species include: Eucalyptus patens, Homalospermum firmum, Gaehnia decomposita, Callistachys lanceolata, Hakea linearis, Melanostachya ustulata, Evandra aristata, Beaufortia sparsa, Calistemon glaucus and Pulicinna pinifolia.

Relictual White Mangrove Community (Leschenault Inlet)
May not be considered a separate community type as it is possibly a geographic outlier.

Melaleuca lanceolata forests, Leeuwin Naturaliste Ridge
Low Closed Forest to Closed Forest of Melaleuca lanceolata ("moonah") occurring near the coastline of the Leeuwin-Naturaliste Ridge adjacent to limestone cliffs and down steeply sloping rock slopes on dark-grey, brown or, less commonly, pale-grey sands, often with outcropping limestone. The Moonah varies from 2 to 15 metres, reflecting depth of soil and wind pruning. Typical understorey shrubs are Tetragonia implexicoma, Rhagodia baccata, Leucopogon propinquus, and Suaeda australis.

Blackwood Alluvial Flats
Woodlands and shrublands of the alluvial soils of the upper Blackwood River (Condinup and Darkan 5f soil-landscape sub-systems). Vegetation associations identified to date: Wet shrublands on alluvial clay flats. Jarrah-Marri woodlands on alluvial grey-brown loams. Wandoow woodlands on alluvial grey-brown clay-loams (includes vernal pools), Flooded Gum-Wandoow woodland on alluvial grey clays (includes vernal pools), Wandoow woodlands on grey sandy loams.

Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system
A low shrubland or heath occurring on grey brown sand with a bleached surface derived from granite gneiss near the west coast of the Leeuwin-Naturaliste Ridge. Dominant or characteristic shrub species include; Calothamnus sanguineus, Darwinia citriodora, Hakea prostrata, Hakea trifurcata, Jacksonia horrida, Kunzea ciliata, Pimelea ferruginea, Pimelea rosea, Spyridium globulosum, Verticordia plumosa var. plumosa, Xanthorrhoea brunonis. Common herbs, grasses and sedges include; Asteridea pulverulenta, Austrodanthonia selcine, Austrostipa compressa, Brachyscome beridifolia, Lepidosperma squamatum, Platysace haplostiadia, Trichocline sphalutula and Velleia trinervis.

Quindalup Eucalyptus gomphocephala and / or Agonis flexuosa woodlands ("community type 30b") (Can form a component of the Tuart Woodlands of the Swan Coastal Plain PEC)
This community is dominated by either Tuart or Agonis flexuosa. The presence of Hibbertia cuneiformis, Geranium retorsum and Dichondra repens differentiate this group from other Quindalup community types. The type is found from the Leschenault Peninsular south to Busselton.
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<th>Page</th>
<th>Community Type</th>
<th>Description</th>
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<tr>
<td>21</td>
<td><em>Eucalyptus haematoxylon - Eucalyptus marginata</em> woodlands on Whicher foothills (<em>community type 1a</em>)</td>
<td>Community occurs along the northern edge of State Forest along the base of the Whicher Range and is composed of <em>Eucalyptus haematoxylon</em> – <em>Corymbia calophylla - Eucalyptus marginata</em> forests and woodlands. Taxa virtually restricted to the type include <em>Acacia varia</em> subsp. varia, <em>Agonis grandiflora</em> and <em>Xanthosia pusilla</em>. <strong>Priority 3(i)</strong></td>
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<td>22</td>
<td><em>Tuart (Eucalyptus gomphocephala)</em> woodlands of the Swan Coastal Plain</td>
<td>Mostly confined to Quindalup Dunes and Spearwood Dunes from Jurien Bay to the Sabina River, with outliers along some rivers. Tuart is the key dominant canopy species however Tuart communities comprise a variety of flora and fauna assemblages. Flora commonly occurring with Tuart include Peppermint (<em>Agonis flexuosa</em>), <em>Banksia attenuata</em>, <em>Banksia grandis</em>, <em>Allocasuarina Fraseriana</em>, <em>Xylomelum occidentale</em>, <em>Macrozamia riedlei</em>, <em>Xanthorrhoea preissii</em>, <em>Spyridium globulosum</em>, <em>Templetonia retusa</em> and <em>Diplolaena dampieri</em>. Threats: Land clearing, weed invasion, grazing, disease, altered fire regimes, hydrological change. <strong>Priority 3(iii)</strong></td>
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<td>23</td>
<td><em>Banksia dominated woodlands of the Swan Coastal Plain IBRA region</em></td>
<td>Canopy is most commonly dominated or co-dominated by <em>Banksia attenuata</em> and/or <em>B. menziesii</em>. Other Banksia species that can dominate in the community are <em>B. prionotes</em> or <em>B. ilicifolia</em>. It typically occurs on well drained, low nutrient soils on sandplain landforms, particularly deep Bassendean and Spearwood sands and occasionally on Quindalup sands; it is also common on sandy colluvium and aeolian sands of the Ridge Hill Shelf, Whicher Scarp and Dandaragan Plateau and can occur in other less common scenarios. <strong>Priority 3(iii)</strong></td>
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<td>24</td>
<td><em>Southern Swan Coastal Plain Eucalyptus gomphocephala - Agonis flexuosa woodlands (type 25)</em> (Can form a component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC or the Tuart Woodlands of the Swan Coastal Plain PEC)</td>
<td>Woodlands of <em>Eucalyptus gomphocephala - Agonis flexuosa</em> south of Woodman Point. Recorded from the Karrakatta, Cottesloe and Vasse units. Dominants other than tuart were occasionally recorded, including <em>Corymbia calophylla</em> at Paganoni block and <em>Eucalyptus decipiens</em> at Kemerton. Occasionally dominant other than tuarts were recorded (<em>Corymbia calophylla and Eucalyptus decipiens</em>) however tuarts are emergent nearby. <em>Banksias</em> found in this community include <em>Banksia attenuata</em>, <em>B. grandis</em> and <em>B. littoralis</em>. Tuart formed the overstorey nearby however. <strong>Priority 3(iii)</strong></td>
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<td>25</td>
<td><em>Low lying Banksia attenuata woodlands or shrublands</em> (<em>community type 21c</em>) (a component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC)</td>
<td>This type occurs sporadically between Gingin and Bunbury, and is largely restricted to the Bassendean system. The type tends to occupy lower lying wetter sites and is variously dominated by <em>Melaleuca preissiana</em>, <em>Banksia attenuata</em>, <em>B. menziesii</em>, <em>Regelia ciliata</em>, <em>Eucalyptus marginata</em> or <em>Corymbia calophylla</em>. Structurally, this community type may be either a woodland or occasionally shrubland. <strong>Priority 3(i)</strong></td>
</tr>
<tr>
<td>26</td>
<td><em>Posidonia australis complex seagrass meadows</em></td>
<td>The community consists of the assemblage of plants, animals and micro-organisms associated with seagrass meadows dominated by species from the <em>Posidonia australis</em> complex. It occurs as continuous to patchy monospecific and multispecies seagrass meadows dominated by species from the <em>Posidonia australis complex - P. angustifolia, P. australis and P. sinuosa</em>. It is the climax community of a successional process that occurs over decades to centuries. The community is distributed in temperate Australian waters between Shark Bay (25°S) on the west coast, across southern Australia to Wallis Lake (32°S) on the east coast, around Bass Strait islands and along the north coast of Tasmania. Threats: decline in water quality, coastal infrastructure development and damage caused by vessels and moorings. Climate change is anticipated to significantly impact on seagrasses over time due to their particular sensitivity to changes in factors such as temperature, salinity, water clarity, pH and sea level. <strong>Priority 3(i)</strong></td>
</tr>
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</table>
**Subtropical and Temperate Coastal Saltmarsh**

Consists of the assemblage of plants, animals and micro-organisms associated with saltmarsh in coastal regions of sub-tropical and temperate Australia (south of 23°S latitude). The habitat is coastal areas under tidal influence. In southern latitudes saltmarsh are the dominant habitat in the intertidal zone and often occur in association with estuaries. It is typically restricted to the upper intertidal environment, generally between the elevation of the mean high tide, and the mean spring tide. The community consists mainly of salt-tolerant vegetation (halophytes) including; grasses, herbs, reeds, sedges and shrubs. Succulent herbs and grasses generally dominate and vegetation is generally <0.5m tall with the exception of some reeds and sedges. Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms and cyanobacterial mats. Saltmarsh consists of many vascular plant species but is dominated by relatively few families. There is also typically a high degree of endemism at the species level. The two most widely represented coastal saltmarsh plant families are the Chenopodiaceae and Poaceae. Four structural saltmarsh forms are currently recognised based on dominance of a particular vegetation type:

- dominance by succulent shrubs (e.g. Tecticornia)
- dominance by grasses (e.g. Sporobolus virginicus)
- dominance by sedges and grasses (e.g. Juncus kraussii, Gaehnia trifida)
- dominance by herbs (e.g. low-growing creeping plants such as Wilsonia backhousei, Samolus repens, Schoenus nitens).

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**Southern Banksia attenuata woodlands (‘community type 21b’)(A component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC)**

This community is restricted to sand sheets at the base of the Whicher Scarp, the sand sheets on elevated ridges or the sand plain south of Bunbury. Structurally, this community type is normally Banksia attenuata or Eucalyptus marginata – B. attenuata woodlands. Common taxa include Acacia extensa, Jacksonia sp. Busselton, Laxmannia sessiliflora, Lysinema ciliatum and Johnsonia acaulis.

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**SWAN**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Pools of the Avon and Dale Rivers</em></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Fairbridge Ironstone community (Cemetery – Fairbridge Farm).</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Mount Saddleback heath communities</td>
<td>1</td>
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<tr>
<td>4</td>
<td><em>Casuarina obesa</em> association</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Elongate fluviatile delta system</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td><em>Claypans with mid dense shrublands of Melaleuca lateritia over herbs (classified as Claypans of the Swan Coastal Plain under EPBC Act)</em></td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Brackish microbial community number 1 (Lake Walyungup)</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Microbialites and microbial mats of coastal hypersaline lakes (Rottnest Island); Lake Baghdad</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Microbialites and microbial mats of coastal hypersaline lakes (Rottnest Island); Garden Lake</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Microbialites and microbial mats of coastal hypersaline lakes (Rottnest Island); Herschel Lake</td>
<td>1</td>
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<tr>
<td>11</td>
<td>Microbialites and microbial mats of coastal hypersaline lakes (Rottnest Island); Serpentine Lake</td>
<td>1</td>
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<tr>
<td>12</td>
<td>Microbialites and microbial mats of coastal hypersaline lakes (Rottnest Island); Lake Timperley</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Microbialites and microbial mats of coastal hypersaline lakes (Rottnest Island); Lake Vincent</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Wandoo woodland over dense low sedges of <em>Mesomelaena preissii</em> on clay flats</td>
<td>Wandoo woodland on clay flats in valleys over dense low sedges of <em>Mesomelaena preissii</em>.</td>
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<tr>
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</tr>
<tr>
<td>15</td>
<td>Banksia woodland of the Gingin area restricted to soils dominated by yellow to orange sands (A component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC)</td>
<td>Species-rich Banksia woodlands on deep yellow-red sands that appear restricted to the western Dandaragan Plateau. The vegetation is described as scattered <em>Eucalyptus loddiana</em> and <em>Eucalyptus calophylla</em> over Banksia menziesii and Banksia attenuata low open woodland over Jacksonia sternbergiana and Adenantheros cyngorum high open shrubland over Allocasuarina humilis and Chamelaucium lullfitzii (DRF) open shrubland over <em>Eremaea pauciflora</em> and <em>Astroloma xerophyllum</em> low shrubland over <em>Mesomelaena pseudostygia</em> open sedgeland.</td>
</tr>
<tr>
<td>16</td>
<td>Living microbial mats in hypersaline ponds</td>
<td>Extant hypersaline pond stromatolitic ‘Conophyton’ like un lithified communities formed with little sediment incorporation by (<em>Phormidium hypersalinum</em> (Femplup Pond, Lake Preston, Yalgorup)).</td>
</tr>
<tr>
<td>17</td>
<td>Wooded wetlands that support colonial waterbird nesting areas</td>
<td>Chandal, Booragoon Lake, unnamed wetland near Pinjarra, McCarleys Swamp. This type differs from the listed ‘Perched wetlands of the Wheatbelt region with extensive stands of <em>Casuarina obesa</em> and <em>Melaleuca strobophylla</em>’ (‘Toolibin-type’ wetlands) in that the Wheatbelt type is Casuarina, rather than Melaleuca dominated. Also, Toolibin Lake type is now brackish-saline (formerly fresh-brackish), whereas this type are currently fresh-brackish.</td>
</tr>
<tr>
<td>18</td>
<td>Litter Dependent Invertebrate Community of the northern Jarrah Forest</td>
<td>Chandler Block, Northern Jarrah Forest, insufficient evidence that this is a discrete community type.</td>
</tr>
<tr>
<td>19</td>
<td>Banksia ilicifolia woodlands, southern Swan Coastal Plain (‘community type 22’) (A component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC)</td>
<td>Low lying sites generally consisting of Banksia ilicifolia – <em>B. attenuata</em> woodlands, but <em>Melaleuca preissiana</em> woodlands and scrubs are also recorded. Occurs on Bassendean and Spearwood systems in the central Swan Coastal Plain north of Rockingham. Typically has very open understorey, and sites are likely to be seasonally waterlogged.</td>
</tr>
<tr>
<td>20</td>
<td>Coastal shrublands on shallow sands, southern Swan Coastal Plain (‘community type 29a’)</td>
<td>Mostly heaths on shallow sands over limestone close to the coast. No single dominant but important species include <em>Spyridium globulosum</em>, <em>Rhagodia baccata</em>, and <em>Olearia axillaris</em>.</td>
</tr>
<tr>
<td>21</td>
<td>Granite communities of the northern Jarrah Forest</td>
<td>Jarrahdale area - Monadnocks, Blue Rock; insufficient information to distinguish discrete community type/s.</td>
</tr>
<tr>
<td>22</td>
<td>Swan Coastal Plain Banksia attenuata - Banksia menziesii woodlands (‘community type 23b’) (A component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC)</td>
<td>These woodlands occur in the Bassendean system, from Melaleuca Park to Gingin. Occurs in reasonably extensive Banksia woodlands north of Perth.</td>
</tr>
<tr>
<td>23</td>
<td>‘Southern Swan Coastal Plain Eucalyptus gomphocephala - Agonis flexuosa woodlands (type 25) (Can form a component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC, or the Tuart woodlands of the Swan Coastal Plain PEC)’</td>
<td>Woodlands of <em>Eucalyptus gomphocephala</em> - <em>Agonis flexuosa</em> south of Woodman Point. Recorded from the Karrakatta, Cottesloe and Vasse units. Dominants other than tuart were occasionally recorded, including <em>Corymbia calophylla</em> at Paganoni block and <em>Eucalyptus decipiens</em> at Kemerton. Banksias found in this community include Banksia attenuata, <em>B. grandis</em> and <em>B. littoralis</em>. Tuart formed the overstorey nearby however.</td>
</tr>
<tr>
<td>24</td>
<td>‘Low lying Banksia attenuata woodlands or shrublands (‘community type 21c’) (A component of the Endangered Banksia Woodlands of the Swan Coastal Plain EPBC listed TEC)’</td>
<td>This type occurs sporadically between Gingin and Bunbury, and is largely restricted to the Bassendean system. The type tends to occupy lower lying wetter sites and is variously dominated by <em>Melaleuca preissiana</em>, Banksia attenuata, <em>B. menziesii</em>, Regelia ciliata, <em>Eucalyptus marginata</em> or <em>Corymbia calophylla</em>. Structurally, this community type may be either a woodland or occasionally shrubland.</td>
</tr>
</tbody>
</table>
# Northern Spearwood shrublands and woodlands (‘community type 24’)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Endangered TEC (part)</th>
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<td>3(i)</td>
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</table>

Heaths with scattered *Eucalyptus gomphocephala* occurring on deeper soils north from Woodman Point. Most sites occur on the Cottesloe unit of the Spearwood system. The heathlands in this group typically include *Dryandra sessilis*, *Calothamnus quadrifidus*, and *Schoenus grandiflorus*.

25

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

<table>
<thead>
<tr>
<th>Priority</th>
<th>Endangered TEC</th>
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<td>3(iii)</td>
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</table>

 Mostly confined to Quindalup Dunes and Spearwood Dunes from Jurien Bay to the Sabina River, with outliers along some rivers. Tuart is the key dominant canopy species however Tuart communities comprise a variety of flora and fauna assemblages. Flora commonly occurring with Tuart include Peppermint (*Agonis flexuosa*), *Banksia attenuata*, *Banksia grandis*, *Allocasuarina fraseriana*, *Xylumelum occidentale*, *Macrozamia niederi*, *Xanthorrhoea preissii*, *Spyridium globulosum*, *Templetonia retusa* and *Diplolaena dampieri*.

26

# Acacia shrublands on taller dunes, southern Swan Coastal Plain (‘community type 29b’)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Endangered TEC</th>
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<td>3(i)</td>
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</table>

Community is dominated by Acacia shrublands or mixed heaths on the larger dunes. This community stretches from Seabird to south of Mandurah. No consistent dominant but species such as *Acacia rostellifera*, *Acacia lasiocarpa*, and *Melaleuca acerosa* were important.

27

# *Banksia dominated woodlands of the Swan Coastal Plain IBRA region

<table>
<thead>
<tr>
<th>Priority</th>
<th>Endangered TEC</th>
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<tbody>
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<td>3(iii)</td>
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</table>

Canopy is most commonly dominated or co-dominated by *Banksia attenuata* and/or *B. menziesii*. Other Banksia species that can dominate in the community are *B. priornotes* or *B. ilicifolia*. It typically occurs on well drained, low nutrient soils on sandplain landforms, particularly deep Bassendean and Spearwood sands and occasionally on Quindalup sands; it is also common on sandy colluvium and aeolian sands of the Ridge Hill Shelf, Whitch Scarp and Dandaragan Plateau and, in other less common scenarios.

28

# *Posidonia australis complex seagrass meadows

<table>
<thead>
<tr>
<th>Priority</th>
<th>Endangered TEC</th>
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<td>3(i)</td>
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</table>

The community consists of the assemblage of plants, animals and micro-organisms associated with seagrass meadows dominated by species from the *Posidonia australis* complex. It occurs as continuous to patchy monospecific and multispecies seagrass meadows dominated by species from the *Posidonia australis* complex - *P. angustifolia*, *P. australis* and *P. sinuosa*. It is the climax community of a successional process that occurs over decades to centuries. The community is distributed in temperate Australian waters between Shark Bay (25°S) on the west coast, across southern Australia to Wallis Lake (32°S) on the east coast, around Bass Strait islands and along the north coast of Tasmania. Threats: decline in water quality, coastal infrastructure development and damage caused by vessels and moorings. Climate change is anticipated to significantly impact on seagrasses over time due to their particular sensitivity to changes in factors such as temperature, salinity, water clarity, pH and sea level.

29

# *Subtropical and Temperate Coastal Saltmarsh

<table>
<thead>
<tr>
<th>Priority</th>
<th>Vulnerable TEC</th>
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</table>

Consists of the assemblage of plants, animals and micro-organisms associated with saltmarsh in coastal regions of sub-tropical and temperate Australia (south of 23° S latitude). The habitat is coastal areas under tidal influence. In southern latitudes saltmarsh is the dominant habitat in the intertidal zone and often occur in association with estuaries. It is typically restricted to the upper intertidal environment, generally between the elevation of the mean high tide, and the mean spring tide. The community consists mainly of salt-tolerant vegetation (halophytes) including: grasses, herbs, reeds, sedges and shrubs. Succulent herbs and grasses generally dominate and vegetation is generally <0.5m tall with the exception of some reeds and sedges. Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms and cyanobacterial mats. Saltmarsh consists of many vascular plant species but is dominated by relatively few families. There is also typically a high degree of endemicism at the species level. The two most widely represented coastal saltmarsh plant families are the *Chenopodiaceae* and *Poaceae*. Four structural saltmarsh forms are currently recognised based on dominance of a particular vegetation type:

- dominance by succulent shrubs (e.g. *Tecitornia*)
- dominance by grasses (e.g. *Sporobolus viriginicus*)
- dominance by sedges and grasses (e.g. *Juncus kraussii*, *Gahnia trifida*)
- dominance by herbs (e.g. low-growing creeping plants such as *Wilsonia backhousei*, *Samolus repens*, *Schoenus nitens*).
**Eucalypt woodlands of the Western Australian Wheatbelt**

Eucalypt-dominated woodlands in the Western Australian Wheatbelt region as defined by the IBRA Avon Wheatbelt 1 and 2 and Western Mallee subregions with the specific exceptions of: woodlands and forests dominated by Jarrah (*E. marginata*) or Marri (*Corymbia calophylla*) where they occur without York Gum present; and non-woodland communities dominated by eucalypts, specifically those dominated by eucalypts with a mallee growth form. Community is defined primarily by its structure as a woodland. The presence in the canopy layer of eucalypt trees - most commonly salmon gum (*Eucalyptus salmonophloia*), York gum (*Eucalyptus faxpheyba*), red mallee (*Eucalyptus longicornis*) or gillet (*Eucalyptus salubris*) defines the Wheatbelt woodlands. Several of the other emergent eucalypt species which may be present as a defining species (e.g. Kondininn blackbutt (*E. kondinensis*), *E. myriadena*, salt river gum (*E. sargentii*), silver mallet (*E. ornata*) and mallet (*E. singularis*) are found only in the Western Australian Wheatbelt.

Threats: altered hydrology, grazing, altered fire regimes, vegetation clearing, exotic species, soil cultivation and fertilization

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**Central Northern Darling Scarp Granite Shrubland Community**

Shrublands and heath on deeper loams and red earths on fragmented granite/quartzite. Heath species typically consist of the taller shrubs *Xanthorrhoea acanthostachya* and *Allocasuarina humilis* over smaller proteaceous and myrtaceous shrubs, namely *Melaleuca aff. scabra*, *Baeckea camphorosmae* and to a lesser extent, the proteaceous shrubs *Dryandra armata*, *Hakea incrassata* and *Hakea undulata*. Located in central region of the Northern Darling Scarp near Perth.

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**WARREN**

1. **Reedia spathacea - Empodisma gracillimum - Schoenus multiligum** dominated peat paluslopes and sandy mud floodplains of the Warren Biogeographical Region

   Sedges/ rushes to about 1.5m in height of *Reedia spathacea*/*Empodisma gracillimum*/*Schoenus multiligum* with *Homalospermum firmum* low open shrubs to scrub.

   Threats: fire - too frequent, pig activity, weed invasion, clearing

2. **Relictual peat community**

   Lake Surprise.

3. **Southwest Coastal Grassland**

   Southwest coastal grassland occuring over calcareous sand dune and dominated by a dense covering of a diverse array of perennial grasses including *Austrostipa flavescens*, and *Poa porphyroclados*, as well as a high density of the restiad *Desmocladus flexuosus*.

4. **Dense heath B of Spyrnidium glosulosum, Banksia occidentalis, Olearia axillaris, Melaleuca pauciflora, Pericalymma spongiocaule and Jacksonia horrida** with tall open sedges of *Ficinia nodosa*

   Typical species may include *Anarthria prolifera*, *Ficinia nodosa*, *Baumea juncea*, *Hibbertia stellaris*, *Patersonia occidentalis*, *Cassytha racemosa*, *Melaleuca pauciflora*, *Melaleuca sp.*, *Pericalymma spongiocaule*, *Banksia occidentalis*, *Hakea varia*, *Spyridium globulosum*, *Dodonaea ceratocarpa*. Found at Black point, D'Entrecasteaux National Park

   Threats: uncontrolled vehicle access, trampling, grazing, altered hydrology, *Phytophthora* and acid sulphate soils.

5. **Low forest B of Melaleuca cuticularis with Banksia occidentalis**

   Typical species include *Melaleuca cuticularis*, *Banksia occidentalis*, *Acacia saligna*, *Rhodantherumu aniceps*, *Cassytha racemosa*, *Spyridium globulosum*, *Olearia axillaris*, *Olax phyllanthii*, *Aegonis flexuosa*, *Xanthorrhoea preissii*, *Muehlenbeckia adpressa*. Found at Black point, D'Entrecasteaux National Park

   Threats: uncontrolled vehicle access, trampling, grazing, altered hydrology, *Phytophthora* and acid sulphate soils.

6. **Ridge Road Quartzite community**

   Open Jarrah forest and woodland developed on young exposed quartzite with an understorey dominated by Taxandria parviceps on the western interface of the Yilgarn craton and the Albany-Frazer orogen.

   Threats: mining

7. **Sphagnum communities of the Tingle Forest**

   Only 4 known occurrences - Walpole area.
<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Priority</th>
</tr>
</thead>
</table>
| 8 | Basalt association of the Warren Region  
Black Point - near Augusta.  
Dwarf Scrub D Leucophyta brownii, Sarcocornia quinquefolia and Olearia axillaris with  
Open Low Sedges of Juncus pauciflorus and Herbs of Sarcocornia quinquefolia, Isolepis sp., Samolus repens and Very Open Low Grass of Sporobolus virginicus. Bunbury Basalt outcrops, flats over Bunbury Basalt with reddish brown sandy clay loam basaltic soils and basaltic saprolite outcrops with light yellowish brown clays.  
Threats: uncontrolled vehicle access, trampling, grazing, altered hydrology, Phytophthora and acid sulphate soils erosion. | Priority 2 |
| 9 | Aquatic invertebrate assemblages of granite outcrops associated with Burnside Batholith (formerly Southern Granite community (Muirillup Rock, Northcliffe))  
Subset of wheatbelt granites; insufficient information to distinguish discrete community type/s. | Priority 2 |
| 10 | Aquatic invertebrate communities of peat swamps                                                                                              | Priority 2 |
| 11 | Microbial tufa community (Black Point type)  
A comparison of the species composition of the microbial tufa at Black Point with the TEC 'Rimstone pools and caves structures formed by microbial activity on marine shorelines', at Augusta needs to be completed to determine if the communities should be considered as separate types.  
Threats: recreational activity has the potential to impact on some of the occurrences through physical disturbance and altered hydrology. | Priority 3 (i) |
| 12 | *Subtropical and Temperate Coastal Saltmarsh  
Consists of the assemblage of plants, animals and micro-organisms associated with saltmarsh in coastal regions of sub-tropical and temperate Australia (south of 23°S latitude).  
The physical environment for the ecological community is coastal areas under tidal influence. In southern latitudes saltmarsh are the dominant habitat in the intertidal zone and often occur in association with estuaries. It is typically restricted to the upper intertidal environment, generally between the elevation of the mean high tide, and the mean spring tide. The community consists mainly of salt-tolerant vegetation (halophytes) including: grasses, herbs, reeds, sedges and shrubs. Succulent herbs and grasses generally dominate and vegetation is generally less than half of a metre tall with the exception of some reeds and sedges. Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms and cyanobacterial mats. Saltmarsh consists of many vascular plant species but is dominated by relatively few families. There is also typically a high degree of endemism at the species level. The two most widely represented coastal saltmarsh plant families are the Chenopodiaceae and Poaceae. Four structural saltmarsh forms are currently recognised based on dominance of a particular vegetation type:  
• dominance by succulent shrubs (e.g. Tecticornia)  
• dominance by grasses (e.g. Sporobolus virginicus, Austrostipa stipoides)  
• dominance by sedges and grasses (e.g. Juncus kraussii, Gahnia trifida)  
• dominance by herbs (e.g. low-growing creeping plants such as Wilsonia backhousei, Samolus repens, Schoenus nitens).  
Epiphytic Cryptogams of the karri forest  
Cryptogams associated with Trymalium odoratissimum subsp. odoratissimum and Chorilaena quercifolia in the karri forests of south-west Western Australia.  
Threats: clearing, inappropriate fire regimes, weeds | Priority 3 (ii) Vulnerable TEC |
|     | WHEATBELT                                                                                                                                     |          |
| 1  | Highclere Hills (Mayfield) vegetation complex (banded ironstone formation)  
Threats: iron ore mining. | Priority 1 |
| 2  | *Claypans with mid dense shrublands of Melaleuca lateritia over herbs (A component of the Critically Endangered Clayans of the Swan Coastal Plain EPBC listed TEC)  
Claypans (predominantly basins) usually dominated by a shrubland of Melaleuca lateritia occurring both on the coastal plain and the adjacent plateau. These claypans are characterized by aquatic (Hydrocotyle lemnoides – Priority 4) and amphibious taxa (e.g. Glossosigma diandrum, Villarsia capitata and Eleocharis keigheryi - DRF). | Priority 1 Critically Endangered TEC (part) |
<table>
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</table>
| 3 | **Red Morrel Woodland of the Wheatbelt** (a component of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC)  
Tall open woodlands of *Eucalyptus longicornis* (red morrell) found in the Wheatbelt on lateritic, ironstone or granitic soil types. Sometimes found with *Eucalyptus salmonophloia* (Salmon Gum), or *E. loxophleba* (York Gum) woodlands and has very little understorey. It is also found directly above lake systems in the central and eastern Wheatbelt. The landscape unit in which it is found is valley floors, usually adjacent to saline areas. |
| 4 | **Pools of the Avon and Dale Rivers**  
Deep pools and natural braided sections of the fresh to brackish Avon and Dale Rivers. |
| 5 | **Caneglass perched clay wetlands of the wheatbelt dominated by *Eragrostis australasica* and *Melaleuca strobophylla* across the lake floor**  
Priority 1 |
| 6 | **Mottlecath dominated heathland on deep white sands**  
Wheatbelt Mottlecath (*Eucalyptus macrocarpa* subsp. *macrocarpa*) dominated heathland on deep white sands. *Eucalyptus macrocarpa* over proteaceous sandplain community.  
Priority 1 |
| 7 | **Natural organic saline seeps of the Avon Botanical District**  
The known occurrence of this community is characterised by vegetation in a series of bands from the upland to the saline seep. 1) Dunes and sandplain, 2) Saline seep and 3) Adjacent flats and flow lines.  
Priority 1 |
| 8 | **Dense Melaleuca thickets with emergent mallee *Eucalyptus erythronema* var. marginata and *Eucalyptus transcontinentalis* of the Wheatbelt Region**  
Priority 1 |
| 9 | **Tamma-Dryandra-Eremaea shrubland**  
Tamma-Dryandra-Eremaea shrubland on cream sands of the Ulva Landform Unit. *Acacia lasiocalyx* and *Allocasuarina campestris* over *Eremaea pauciflora*, *Dryandra armata*, *Hakea aculeata* and *Dryandra erythrocephala* open heath over *Neurachne alopecuroidea* very open grassland over cream sands of the Ulva Landform Unit.  
Priority 1 |
| 10 | ***Banksia prionotes* and *Xylomelum angustifolium* low woodlands on transported yellow sand**  
*Banksia prionotes* and *Xylomelum angustifolium* Low Woodlands on large yellow sands dunes (formed from sheets of transported sand in the valleys) on the Ulva Landform Unit. The community has a species rich understorey of *Grevillea enostachya*, *Melaleuca leptospermoides*, *Verticordia roei*, *Calytrix leschenaultii*, *Dampiera spp.*, *Baeckea preissiana* and *Borya constricta*.  
Priority 1 |
| 11 | **Salt Flats Plant Assemblages of the Mortlock River (East Branch)**  
The habitat comprises braided channels (up to 2 km wide), flats, wash-lines and sandy rises (up to 2m high) stretching 39 km along the Mortlock River (East) from Meckering eastwards to 8 km west of Tammin. A mosaic of plant communities assorted by elevation occurs on the river flats. The area represents the most extensive braided saline drainage line in this part of the SW agricultural zone. The plant community comprises mixed shrubs (*Schottzia capitata*, *Melaleuca aff. uncinata*) over species rich herbs on sandy rises, with *Melaleuca thyoides* on margins, dwarf scrub and species rich herbs on washlines and saline wetlands.  
Priority 1 |
| 12 | **Brown mallet *Eucalyptus astringens* communities in the western Wheatbelt on alluvial flats (previously ‘Beaufort River Flats’) (a component of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC)**  
Near York and on the Arthur River on grey clays the understorey is dominated by *Melaleuca viminalis* over sedges (*Gahnia trifida*) and bunch grasses. At Kojunup and near Tambellup on brown clays sparse shrubs and succulent shrubs (*Disphyma crassifolium*) dominate the understorey.  
Priority 1  
**Critically Endangered TEC (part)** |
| 13 | **Yate (*Eucalyptus occidentalis*) dominated alluvial claypans of the Jingalup Soil System (a component of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC)**  
Priority 2  
**Critically Endangered TEC (part)** |
| 14 | **Gypsum Dunes (Lake Chinocup)**  
*Eucalyptus aff. incrasatta* mallee over low scrub on gypsum dunes.  
Priority 2 |
| 15 | **Wheatbelt *Allocasuarina huegeliana* over *Pteridium esculentum* fernland community**  
Tall emergent *Eucalyptus salmonophloia* over *Allocasuarina huegeliana* tall closed forest over *Acacia acuminata* mid-high isolated trees over *Alyxia buxifolia* tall sparse shrubland over *Pteridium esculentum* very tall closed fernland over various sparse forbland. Occurs in a drainage line near the base of a granite inselberg.  
Priority 2 |
| 16 | Allocasuarina huegeliana and Lepidosperma tuberculatum growing on the south-western side of granite outcrops adjacent to laterite on the eastern slopes of the Darling Scarp | Priority 2 |
| 17 | *Ironcap Hills vegetation complexes (Mt Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill) (banded ironstone formation) Threats: mining | Priority 3(iii) |
| 18 | Parker Range vegetation complexes  
*Hakea pendula* Tall Shrubland is of particular significance. *Eucalyptus sheathiana* with *E. transcontinentalis* and/or *E. eremophila* woodland on sandy soils at the base of ridges and low rises; *E. longicornis* with *E. corrugata* and *E. salubris* or *E. myriadena* woodland on broad flats; *E. salmonophloia* and *E. salubris* woodland on broad flats; *Allocasuarina acutivalvis* and *A. comculata* on deeper sandy soils of lateritic ridges; *E. capillaris subsp. polyclada* and/or *E. loxophleba* over *Hakea pendants* thicket on skeletal soils on ridges (laterites, breakaways and massive gossanous caps); and *Callitris glaucophylla* low open woodland on massive greenstone ridges. Threats: exploration and mining | Priority 3(iii) |
<p>| 19 | <em>Granite outcrop pools with endemic aquatic fauna</em> Freshwater pools formed on granite outcrops that may persist for several months and house a variety of aquatic invertebrates, some of which are endemic to south-west WA. Some examples include cladocerans, ostracods, copepods, rotifers, oligochaetes and molluscs. | Priority 3(i) |
| 20 | <em>Eucalypt woodlands of the Western Australian Wheatbelt</em> Eucalypt-dominated woodlands in the Western Australian Wheatbelt region as defined by the IBRA Avon Wheatbelt 1 and 2 and Western Mallee subregions with the specific exceptions of: woodlands and forests dominated by Jarrah (<em>E. marginata</em>) or Marri (<em>Corymbia calophylla</em>) where they occur without York Gum present; and non-woodland communities dominated by eucalypts, specifically those dominated by eucalypts with a mallee growth form. Community is defined primarily by its structure as a woodland. The presence in the canopy layer of eucalypt trees - most commonly salmon gum (<em>Eucalyptus salmonophloia</em>), York gum (<em>Eucalyptus loxophleba</em>), red mallee (<em>Eucalyptus longicornis</em>) or gimlet (<em>Eucalyptus salubris</em>) defines the Wheatbelt woodlands. Several of the other emergent eucalypt species which may be present as a defining species (e.g. Kondinin blackbutt (<em>E. kondinensis</em>), <em>E. myriadena</em>, salt river gum (<em>E. sargentii</em>), silver mallet (<em>E. ornata</em>) and mallet (<em>E. singulans</em>) are found only in the Western Australian Wheatbelt. Threats: altered hydrology, grazing, altered fire regimes, vegetation clearing, exotic species, soil cultivation and fertilization | Priority 3(iii) Endangered TEC |
| 21 | <em>Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia</em> Consists of predominantly obligate seeding proteaceous shrubland and heath (kwongan) and mallee heath on sandplain, duplex sand/clay and gravels overlying Eocene sediments, quartzite, schist, Yilgarn and Albany Fraser granite and greenstone ranges. Its flora is characterised by high species diversity and a high degree of endemism, particularly in the Stirling Range, Fitzgerald River National Park, Ravensthorpe Range and Russell Ranges. Due to the high levels of endemism, there are few species that exist across the entire range of the dense, obligate seeding Proteaceae dominated shrublands and kwongan of the Esperance Sandplains, however particular species have been identified as common dominant species in each of its ecoregions. Threats: Past threats have principally been fragmentation from land clearing, current threats are plant disease <em>Phytophthora cinnamomi</em>, increased fire frequencies, invasive weeds and feral animals. | Priority 3(iii) Endangered TEC |
| 22 | Assemblages of gypsum dunes of the central and southern wheatbelt The community occurs on gypsum dunes that vary from 0.25m to 20m or more but most are only a few meters high. The dunes extend around the southern and eastern shores of salt lakes. Dunes vary in composition with clay, sand, gypsum and other materials occurring in various mixtures, and layering of gypsum and other components can also be found. The nature and composition of soil bearing gypsum is likely to be unique to a site. Most of the flora are gypsumavs i.e. species also recorded widely on other soil types, probably migrants from adjacent plant communities however some occurrences include flora that are gypsumophiles that are substantially confined to gypsum substrates. A range of genera and species including <em>Eucalyptus, Melaleuca, Callitris, Actinostrobus, Allocasuarina and Casuarina obesa</em>, and <em>Chenopodiaceae</em>, grasses and a wide range of other shrubs and perennial herbs occur in the community. Typical flora are from the genera <em>Atrelplex, Austrostipa, Callitris, Casuarina, Eucalyptus, Melaleuca, Darwinia, Rhagodia, Lawvercia, Maireana and Leucopogon</em>. Some of these are less tolerant of salt and waterlogging but species such as <em>Tecticornias</em> and <em>Dysphyma crassifolia</em> may be present. Threats: Gypsum mining and associated altered hydrology, and secondary salinity | Priority 3(iii) |</p>
<table>
<thead>
<tr>
<th>23</th>
<th>Plant assemblages of the Wongan Hills System</th>
<th>(some woodlands are a component of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC)</th>
<th>Priority 4(i)</th>
<th>Critically Endangered TEC (part)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mallee over Petrophile shuttleworthiana/Allocasuarina campestris thicket on shallow gravelly soils over ironstone on summit and slopes; Shrub mallee on slopes of lateritic hills; Mallee over Allocasuarina campestris thicket on the slopes of the laterite plateaus; Mallee over Melaleuca thicket on red brown loam over gravel on slopes below the plateau; Mallee over Melaleuca coronicarpa heath on shallow red soil on scarp slopes; A. campestris/CaPCMthannus asper thicket over red-brown clay/ironstone/greenstone on scree slopes; and in lower areas: Eucalyptus longicornis/ E. salubris woodland, E. salmonophloia and E. loxophleba woodlands; Acacia acuminata low forest; E. ebbanaeansal mallee over scrub; and open mallee of E. drummondii.</td>
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### SOUTH COAST

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<tr>
<th>1</th>
<th>Stromatolite-like microbialite community of a Coastal Hypersaline Lake (Pink Lake)</th>
<th>Microbial, invertebrate and plant assemblages of natural saline seeps. Well-laminated stromatolites consisting of alternations of egg-shell-like layers of inorganic aragonite precipitate and calcified microbial layers dominated by coccolid cyanobacteria and photosynthetic bacteria. These structures probably record seasonal alternations of the growth of a benthic microbial community and aragonite precipitation.</th>
<th>Priority 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allocasuarina globosa</strong> assemblages on greenstone rock (Esperance District)</td>
<td>Assemblage only known from near Norseman and in the Bremer Range (see below). Threats: mining and exploration</td>
<td>Priority 1</td>
<td></td>
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<tr>
<td>3</td>
<td>Bremer Range vegetation complexes</td>
<td>Mt Day, Round Top Hill, Honman Ridge. Eucalyptus rhomboidea ms and E. eremophila woodland on the side slopes of low ridges; E. flocktoniae woodland (with E. salubris, E. salmonophloia, E. dundasii and E. tenuis) on broad flat ridges and side slopes; E. flocktoniae and/or E. longicornis woodland on saline soils on ridges and flats adjacent to large salt lake systems; E. longicornis and/or E. salmonophloia or, E. georgei subsp georgei or, E. dundasii woodland, on low areas; E. livida woodland on lateritic tops or Allocasuarina thickets on greenstone ridges of lateritic breakaways; Acacia duriauscula, Allocasuarina globosa, E. georgei subsp. georgei and E. oleosa thickets on greenstone ridges with skeletal soils. Proposed Nature Reserve. Threats: exploration and mining</td>
<td>Priority 1</td>
</tr>
<tr>
<td>4</td>
<td>Fraser Range vegetation complex</td>
<td>Plant assemblages of the Fraser Range Vegetation Complex: Allocasuarina huegeliana and Pittosporum phylliraeoides open woodland over Beyeria lechenaultia and Dodonaea microzyga Scrub and Aristida contorta bunch grasses (granite complex), on the slopes and summits of hills; Acacia acuminata Tall Shrubland dominated by Melaleuca uncinata and Triodia scariosa on uplands with shallow loamy sands; Eucalyptus aff. uncinata (KRN 7854) over Senia artemisiodora subsp. helmsii, Cryptandra miliaris, Dodonaea stenophloia, D. stenophloia and Triodia scariosa (Eucalyptus effusa Mallee) on colluvial flats with loamy clay sands, and; E. oleosa, E. transcontinentalis, E. flocktoniae Woodland on flats.</td>
<td>Priority 1</td>
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<tr>
<td>5</td>
<td>Plant assemblages of the Southern Hills Vegetation Complex</td>
<td>Complex of woodland (Eucalyptus oleosa, E. transcontinentalis, E. flocktoniae) on flats with open stony ridges carrying mainly mallee and spinifex (Eucalyptus effusa mallee: Eucalyptus rigidula over Cassia helmsii, Cryptandra miliaris, Dodonaea boronifolia, D. stenophloia and Triodia scariosa). Includes patches of grassland, wattle thicket and mallee.</td>
<td>Priority 1</td>
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<td>6</td>
<td>Green Range granite hill heath and woodland community</td>
<td>Heath and woodland dominated by Acacia heterocolla, Anthocercis viscosa, Thryptomene saxicola, Darwinia citriodora, Prostanthera verticillata, Platysace compressa, Gastrolobium bilobum, Hakea oleifolia, Leucopogon verticillaris, Agonis flexuosa, Eucalyptus cormula, and Acacia drummondii ssp. elegans on red clay-loam over granite.</td>
<td>Priority 1</td>
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<td>7</td>
<td>Wet ironstone heath community (Albany District)</td>
<td>(a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC) The habitat for the community is winter-wet ironstone in valley floors. The heath community is dominated by Kunzea recurva, K. preissiana, K. micrantha, Hakea lasiocarpa, H. tuberculata, H. oldfieldii, H. cucullata, H. sulcata, Petrophile squamata, Dryandra tenuifolia ssp. tenuifolia, Adenantheros apiculatus, Melaleuca suberosa, M. violacea, Gastrolobium spinosum. North Porongurup.</td>
<td>Priority 1</td>
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<td>Title</td>
<td>Priority</td>
<td>Remarks</td>
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<tr>
<td><strong>Porongurup Range Karri Forest</strong></td>
<td>Priority 1</td>
<td>TEC (part)</td>
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<td>Occurs on granite, red clay-loam on the mid-upper slopes of the Porongurup Range. Dominants include Eucalyptus diversicolor, Corrymbia calophylla, Trymalium floribundum, Hydrocotyle Yntia, Tetraclinia laevis, Clematis pubescens, Lepidopterum effusum and Pteridium esculentum. Other associated species include: Apium prostratum subsp. phillipi (DRF), Ranunculus colonorum, Adiantum aethiopicum, Asplenium fiabiliformium, A. aethiopicum (P4), Veronica plebeia, Poa porphyroclados and Oxalis corniculata.</td>
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<tr>
<td><strong>Cheynes 1 Tree Mallee (a component of the Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</strong></td>
<td>Priority 1</td>
<td>Endangered TEC (part)</td>
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<tr>
<td>Eucalyptus acies, E. lehmannii, E. goniantha Tree Mallee Tall Open Shrubland and Open Sedgeland on loam on steep slopes of spongellite breakaway. Common shrub species include Gastrolobium bilobum, Rhadinauthamus rudis, Melaleuca blaeiiifolia, Hakea elliptica, Spyriderum majoraniifolium and Agonis theiformis. Common sedges include Desmocladus flexuosus, Tetraria capitata. Priority taxa other than E. acies (P4) and E. goniantha (P4) include Dryandra serra (P4, at the eastern limit of its range) and Calothamnus robustus (P3).</td>
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<td><strong>Cheynes 2 Open Tree Mallee (a component of the Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</strong></td>
<td>Priority 1</td>
<td>Endangered TEC (part)</td>
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<tr>
<td>Eucalyptus acies (P4), E. doratoxylon Tree Mallee over Mixed Tall Open Shrubland. Open Shrubland and Open Sedgeland on loam on gentle to moderate slopes and crests of spongellite outcropping. Common shrub species include Allocasuarina trichodon, Hakea avicularia and H. lasiantha; however the tall shrub stratum may be absent. Common shrubs include Calothamnus robustus (P3, Beaufortia empetriifolia, Dryandra muconulata, Melaleuca strigata and Taxandra spathulata. Common sedges include Mesomelaena stygia, M. tetragnata, Cyathochaeta avenacea, Anarthria scabra and Chordifex leucoblepharus.</td>
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<tr>
<td><strong>Melaleuca sp. Kundip (now M. sophisma) Heath</strong></td>
<td>Priority 1</td>
<td>TEC (part)</td>
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<tr>
<td>Very open mallee over Melaleuca sophisma (Collection number GF Craig 6020) dense heath. Open mallee over dense shrub heath (1.0-1.5) dominated by Melaleuca sophisma on pale grey loamy sand with quartz rubble, occupies hill slopes. Associated species include Melaleuca sophisma (GF Craig 6020) (P1, dominant), M. hatplanta, M. stramentosa (P1), M. rigidifolia, M. bracteosa, Melaleuca sp. Gorse, Pullteraea sp. Kundip (GF Craig 6020), Eucalyptus cernua, E. phaeophylla, E. pilatea, Dodonaea trifida (P4), Acacia dumbalis (P3), Leucopogon infuscatus and Hibbertia psilocharpa ms. On its eastern boundary, the community abuts Eucalyptus astringens open low woodland and in this area there is an intergrade community.</td>
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<tr>
<td><strong>Montane mallee of the Stirling Ranges (a component of the Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</strong></td>
<td>Priority 1</td>
<td>Endangered TEC (part)</td>
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<tr>
<td>Thick, mallee-thicket and heath community on mid to upper slopes of Stirling Range mountains and hills east of Red Gum Pass.</td>
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<tr>
<td><strong>Coyanarup Wetland Suite</strong></td>
<td>Priority 1</td>
<td>TEC (part)</td>
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<tr>
<td>Microscale paluslopes associated with seepage and creeks in the area between Coyanarup Peak and Bluff Knoll in the Stirling Ranges.</td>
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<tr>
<td><strong>Eucalyptus purpurata woodlands (Bandalup Hill)</strong></td>
<td>Priority 1</td>
<td>TEC (part)</td>
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<tr>
<td>Eucalyptus purpurata woodlands on magnesite soils of the ridge-tops and upper slopes of Bandalup Hill</td>
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<tr>
<td><strong>Banksia coccinea Shrubland/Eucalyptus staeeri/Sheoak Open Woodland</strong></td>
<td>Priority 1</td>
<td>Endangered TEC (part)</td>
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<tr>
<td>(‘Community type 14a’) Found on deep white/light grey sand on the lower slopes and valleys, usually occurring just upslope of seasonally wet drainage lines. The community is floristically very diverse and structurally quite variable. Typically Allocasuarina fraseriana, Eucalyptus staeeri, Banksia attenuata and Banksia ilicifolia are present as emergents or as low open woodland above a Banksia coccinea tall open scrub, mixed open/closed heath, mixed low open heath, mixed sedgeland and open herbland. Jacksonia spinosa often forms a distinct stratum above the heathland, dominant heath species are Melaleuca thyroides, Adenanthes cuneatus, Leucopogon rubricaulis, Phyllota bartata, Hypocalymna stricrum and Leucopogon glaberbelis. Common sedges and herbs include Anarthria scabra, Lyginia hystrix, Schoenus caespititus, Anarthria prolifera, Anarthria gracilis and Cyathochaeta equitans. The community is highly susceptible to Phytophthora dieback with infestations resulting in greatly reduced floristic and structural diversity. Appears to be restricted to the Albany region.</td>
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<td><strong>16</strong></td>
<td>Banksia laevigata – Banksia lemanniana proteaceous thicket (a component of the Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</td>
<td>Priority 1</td>
<td>Endangered TEC (part)</td>
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<tr>
<td>This community occurs on laterised ridges and breakaways. Associated species generally include Eucalyptus pleurocarpa, Adenanthos oreophilus, Leptospermum maxwellii, Beaufortia orbifolia, Taxandria spathulata and Stylidium albomontis.</td>
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<tr>
<th><strong>17</strong></th>
<th>Eucalyptus megacornuta mallet woodland</th>
<th>Priority 1</th>
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<tbody>
<tr>
<td>Associated species include the shrubs Hovea acanthoclada, Lasioptelum compactum, Melaleuca thapsina. This community typically grows on rock piles and breakaways of laterised banded ironstone and pyrite formations. A vegetation study noted that E. megacornuta is almost confined to the Ravensthorne Range and was considered rare (less than 1,000 plants known in conservation reserves, or few populations).</td>
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<tr>
<th><strong>18</strong></th>
<th>Microbial mantles of Nullarbor caves (especially Weebubbie Cave)</th>
<th>Priority 1</th>
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</thead>
<tbody>
<tr>
<td>Significant microbial communities in underwater sections of caves. Threats: uncontrolled access</td>
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<thead>
<tr>
<th><strong>19</strong></th>
<th>Mosaic of Albany Blackbutt (Eucalyptus staeri) mallee-heath found on lateritic ridges and Chittick (Lambertia inermis subsp. inermis) scrub-heath on seasonally waterlogged laterite (a component of the Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</th>
<th>Priority 1</th>
<th>Endangered TEC (part)</th>
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</thead>
<tbody>
<tr>
<td>Regionally very restricted and very poorly reserved. Threats: dieback</td>
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<tr>
<th><strong>20</strong></th>
<th>Banksia littoralis woodland / Melaleuca incana Shrubland (South Coast Region)</th>
<th>Priority 1</th>
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<tbody>
<tr>
<td>Threats: fragmentation, dieback disease, hydrological change, too frequent fire, weed invasion</td>
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<tr>
<th><strong>21</strong></th>
<th>Banksia occidentalis/Kunzea clavata Shrubland (South Coast Region)</th>
<th>Priority 1</th>
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</thead>
<tbody>
<tr>
<td>Threats: dieback disease, too frequent fire, weed invasion</td>
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<tr>
<th><strong>22</strong></th>
<th>Astartea scoparia Swamp Thicket (South Coast Region)</th>
<th>Priority 1</th>
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</thead>
<tbody>
<tr>
<td>Threats: fragmentation, too frequent fire, hydrological change, weed invasion, dieback disease</td>
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<tr>
<th><strong>23</strong></th>
<th>Coastal Melaleuca incana / Taxandria juniperina Shrubland/ Closed Forest</th>
<th>Priority 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Threats: fragmentation, too frequent fire, hydrological change, weed invasion, dieback disease</td>
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<tr>
<th><strong>24</strong></th>
<th>Tallerack (Eucalyptus pleurocarpa) mallee-heath on seasonally inundated soils (a component of the Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</th>
<th>Priority 2</th>
<th>Endangered TEC (part)</th>
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<tr>
<td>May have been common prior to clearing for agriculture, and the remaining occurrences of this vegetation are of high conservation significance.</td>
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<tr>
<th><strong>25</strong></th>
<th>Melaleuca striata / Banksia spp. Coastal Heath (a component of the Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</th>
<th>Priority 1</th>
<th>Endangered TEC (part)</th>
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</thead>
<tbody>
<tr>
<td>Community occurs on light grey deep sand on coastal slopes and valleys. <em>Melaleuca striata, Banksia attenuata and Banksia coccinea</em> dominate the closed to open heath/low heath with exposure to salt laden winds restricting the growth of the latter two species. This unit is typically dense being a closed to open heath/low heath over a dense sedgeland dominated by <em>Anarthria scabra</em>. Other common species include <em>Isopogon cuneatus, Adenanthos cuneatus, Astroloma baxteri, Hypocalymma strictum, Petrophile rigidia, Melaleuca thymoides, Lyginia barbata and Hypolaena exsulca</em>. The community is restricted to an area in Gull Rock National Park east of Albany. Threats: All known occurrences are affected by <em>Phytophthora</em> dieback and/or aerial canker. Also vulnerable to inappropriate fire regimes as the community contains serotinous obligate seeders.</td>
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<tr>
<th><strong>26</strong></th>
<th>Melaleuca spathulata/Melaleuca viminea Swamp Heath</th>
<th>Priority 1</th>
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<tbody>
<tr>
<td>Seasonally wet heath dominated by Melaleuca spathulata and Melaleuca viminea in the upper stratum over an open sedgeland characterised by <em>Meeboldina roycei</em>; occurs on brown to orange brown loam overlying clay in winter-wet swamps. Threats: As a wetland community may be considered vulnerable to inappropriate fire regimes i.e. intense fire while the dominant species <em>Melaleuca viminea</em> is a serotinous obligate seeder and vulnerable to too frequent fire.</td>
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</table>
**Banksia coccinea** Shrubland / **Melaleuca strata** / **Leucopogon flavescens** Heath (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)

Community occurs on light grey or grey deep sand on lower slopes and valleys. Structurally this unit is a diverse heathland over a diverse sedgeland dominated by **Anarthria scabra** and a very open herbland dominated by **Dasyypogon bromeliiformis**. Emergent trees (** Allocasuarina fraseriana**, **E. marginata**) may be present along with the shrub **Taraxandria angustifolia**. The community is restricted to an area in the Angove-Two-Peoples Bay - Bettys Beach area east of Albany.

Threats: dieback disease caused by **Phytophthora** spp., inappropriate fire regimes.

**Allocasuarina campestris** / **Callitris preissii** Tall Shrubland on Siltstone

**Callitris preissii** occurs with **Allocasuarina campestris** as dominants in a tall shrubland to shrubland over low open shrubland and very open herbland. Canopy cover is variable in density, depending on the amount of surface rock. Shrubs species in the open low heath to low open shrubland stratum are variable and common species include: **Leucopogon** sp., **Coujijnup**, **Kurnzea recurva**, **Calyptrix tetragona**, **Calothamnus quadrifidus**, **Taraxandria spathulata**, **Chamelaulcium ciliatum**, **Leucopogon** spp., **Verticordia endlicheriana**, **Astartea glomerulosa**, **Beaufortia cyrtodonta**, **Melaleuca spathulata**, **Acorotriche parviflora** and **Hakea marginata**. Habitat is uplands, on skeletal loam soils associated with siltstone rock outcropping or rock close to the soil surface, with or without laterite intrusions.

Threats: Vulnerable to altered fire regimes, grazing pressure and weeds.

**Regelia velutina** / **Melaleuca lutea** shrubland of the Fitzgerald River National Park

A shrubland dominated by members of the Myrtaceae occurring on areas of exposed quartzite bedrock with shallow loamy sand soils on mountain ridges, large quartzite hillocks and a wave cut bench.

Threats: Climate change/ drought, **Phytophthora** dieback, altered fire regimes.

**Albany Blackbutt** (**Eucalyptus staeri**) mallee-heath on deep sand (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)

The structure of the vegetation is mallee heath. **Eucalyptus staeri** to about 4-5 m in height is the most common mallee within a tall open shrub layer consistently dominated by **Agonis theiformis** and **Banksia Baxteri**. **Banksia attenuata**, **Banksia coccinea**, **Hakea pandanircarpa** subsp. **crassifolia** and **Lambertia inermis** are also dominant in some occurrences. **Banksia attenuata** dominates this assemblage at occurrences with the deepest sand. **Hakea Baxteri** and **Nuytsia floribunda** are other common species in the tall shrub layer. **Banksia Baxteri** in the tall shrubs layer is a conspicuous indicator species of this unit. Requires further survey to confirm distribution.

Threats: appears to have been very extensive and common throughout the region but has been comprehensively cleared and degraded (mainly through grazing).

**Subterranean faunal ecosystems of Nullarbor caves** (known from Nurina Cave, Olwolgin Cave, Burnabbi Cave, N327, N1327)

The caves contain communities of invertebrates, other fauna and sensitive habitats including tree roots. Caves included in this community contain at least four troglobitic taxa.

Threats: uncontrolled access

**Posidonia australis** complex seagrass meadows

The community consists of the assemblage of plants, animals and micro-organisms associated with seagrass meadows dominated by species from the **Posidonia australis** complex - **P. angustifolia**, **P. australis** and **P. sinuosa**. It is the climax community of a successional process that occurs over decades to centuries. The community is distributed in temperate Australian waters between Shark Bay (25°S) on the west coast, across southern Australia to Wallis Lake (32°S) on the east coast, around Bass Strait islands and along the north coast of Tasmania.

Threats: decline in water quality, coastal infrastructure development and damage caused by vessels and moorings. Climate change is anticipated to significantly impact on seagrasses over time due to their particular sensitivity to changes in factors such as temperature, salinity, water clarity, pH and sea level.

**Swamp Yate** (**Eucalyptus occidentalis**) woodlands in seasonally inundated clay basins (South Coast)

Yate woodlands with intact understorey and fringing vegetation are poorly conserved in the region.
**Subtropical and Temperate Coastal Saltmarsh**

Consists of the assemblage of plants, animals and micro-organisms associated with saltmarsh in coastal regions of sub-tropical and temperate Australia (south of 23° S latitude). The habitat is coastal areas under tidal influence. In southern latitudes saltmarsh are the dominant habitat in the intertidal zone and often occur in association with estuaries. It is typically restricted to the upper intertidal environment, generally between the elevation of the mean high tide, and the mean spring tide. The community consists mainly of salt-tolerant vegetation (halophytes) including: grasses, herbs, reeds, sedges and shrubs. Succulent herbs and grasses generally dominate and vegetation is generally <0.5m tall with the exception of some reeds and sedges. Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms and cyanobacterial mats. Saltmarsh consists of many vascular plant species but is dominated by relatively few families. There is also typically a high degree of endemism at the species level. The two most widely represented coastal saltmarsh plant families are the Chenopodiaceae and Poaceae. Four structural saltmarsh forms are currently recognised based on dominance of a particular vegetation type:

- **dominance by succulent shrubs (e.g. Tecticornia)**
- **dominance by grasses (e.g. Sporobolus virginicus)**
- **dominance by sedges and grasses (e.g. Juncus kraussii, Gahnia trifida)**
- **dominance by herbs (e.g. low-growing creeping plants such as Wilsonia backhousei, Samolus repens, Schoenus nitens).**

**Ironcap Hills vegetation complexes** (Mt Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill) (banded ironstone formation)

**Threats:** mining

**Priority:** 3(iii)

**Heath on Komatiite of the Raventhorpe area**

Dense heath on alkaline red clay over komatiite (ultra-mafic rock) and associated carbonates. Note: very open tree mallee over heath B in Hale Bopp orebody area.


**Priority:** 3(iii)

**Modini Land System**

Level to gently undulating plains of residual sand and calcrite near the edge of the Bunda Plateau supporting eucalypt or myall woodlands.

**Threats:** over grazing

**Priority:** 3(iii)

**Granite outcrop pools with endemic aquatic fauna**

Freshwater pools formed on granite outcrops that may persist for several months and house a variety of aquatic invertebrates, some of which are endemic to south-west WA. Some examples include cladocerans, ostracods, copepods, rotifers, oligochaetes and molluscs.

**Priority:** 3(i)

**Taxandria spathulata Heath** (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)

Community is an open heath dominated by *Taxandria spathulata*, with a sedgeland that includes *Schoenus* sp. Cape Riche Cushion and *Mesomelaena stygia* on clay loam overlying spongelite plains.

**Threats:** The community is vulnerable to inappropriate fire regimes with *Taxandria spathulata* being a serotinous obligate seeder.

**Priority:** 4(i) **Endangered TEC (part)**

**Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia**

Consists of predominantly obligate seedling proteaceous shrubland and heath (kwongkan) and mallee heath on sandplain, duplex sand/clay and gravels overlying Eocene sediments, quartzite, schist, Yilgarn and Albany Fraser granite and greenstone ranges. Its flora is characterised by high species diversity and a high degree of endemism, particularly in the Stirling Range, Fitzgerald River National Park, Ravensthorpe Range and Russell Ranges. Due to the high levels of endemism, there are few species that exist across the entire range of the dense, obligate seedling Proteaceae dominated shrublands and kwongkans of the Esperance Sandplains, however particular species have been identified as common dominant species in each of its eco districts.

**Threats:** past threats have principally been fragmentation from land clearing, current threats are plant disease *Phytophthora cinnamomi*, increased fire frequencies, invasive weeds and feral animals.

**Priority:** 3(iii) **Endangered TEC**

**Woodline Hills vegetation complexes** (*Baeckea* sp. Barbalin previously known as *B. recurva*) shrubland

Ridge communities unique but unless a mine is proposed are currently not threatened.

**Priority:** 4(i)
<table>
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<tr>
<th>42</th>
<th><strong>Stirling Range Upland Yate community</strong></th>
<th>Priority 4(ii)</th>
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<tr>
<td></td>
<td>Low woodland of <em>Eucalyptus cornuta</em> over a sparse shrub layer of <em>Gastrolobium velutinum, Chamelaucium pauciflorum</em> and <em>Thomasia foliosa</em> over open herbs of <em>Tetranhena laevis, Poa porphyroclados, Billardiera heterophylla, Clematis pubescens, Senecio sp., Hydrocotyle hirta, Cheilanthes austrotenuifolia</em> and <em>Asplenium flabellifolium</em>.</td>
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*Community type occurs in more than one region

**Total 391 (community types and sub-types)**