

### Regional ecosystem 7.1.1

**Description:** Mangrove closed scrub to open forest. Sheltered coastlines, estuaries, and deep swales between dunes, on fine anaerobic silts, inundated with saline water at high tide. Intertidal. (BVG1M: 35a).

**Short description:** Mangrove closed scrub to open forest of areas subject to regular tidal inundation

**Supplementary descriptions:** Stanton and Stanton (2005), E22a; Kemp and Morgan (1999), 1; Kemp et al. (1999), 1; Neldner and Clarkson (1995), 34, 132; Tracey and Webb (1975), 22a

**Subregions:** 2, 1, 3, 9, (6), (7), (8), (11.1), (3.2)

**Protected areas:** Hinchinbrook Island NP, Girringun NP, Halifax Bay Wetlands NP, Girramay NP, Hull River NP, Daintree NP (CYPAL), Gulngay NP, Russell River NP, Maria Creek NP, Ngalba-bulal NP (CYPAL), Kurrimine Beach NP, Paluma Range NP, Ella Bay NP, Goold Island NP, Annan River (Yuku Baja-Muliku) RR, Orpheus Island NP, Moresby Range NP, Carello Palm Swamp CP, Family Islands NP, Bloomfield River CP, Barnard Island Group NP, Moresby Range RR, Frankland Group NP, Annan River (Yuku Baja-Muliku) NP, Malbon Thompson FR, Hope Islands NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Intertidal

**Special values:** 7.1.1: Important fish nursery areas. Threatened species include: *Myrmecodia beccarii* (ant plant) and *Hypochrysops apollo apollo* (apollo jewel butterfly).

**Comments:** 7.1.1: Structure and composition varies greatly, depending upon distance from the sea and differential freshwater influence. The main river systems with extensive mangrove communities include the Annan, Bloomfield, Daintree, Barron, Mulgrave, Russell, Johnstone, Hull, Tully, Murray, Seymour and Herbert Rivers and Mourilyan Harbour and Trinity Inlet.

**Estimated extent:**<sup>1</sup> Pre-clearing 46000 ha; Remnant 2021 45000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.1.2

**Description:** *Sporobolus virginicus* (saltwater couch) grassland, samphire open forbland to sparse forbland, and bare saltpans. Fine anaerobic saline silts on plains adjacent to mangroves. Saltpans dominate in extremely saline situations. Intertidal. (BVG1M: 35b).

Vegetation communities in this regional ecosystem include:

7.1.2a: Samphire flats with open forbland to sparse forbland of *Tecticornia* spp., and *Suaeda australis*. Includes bare saltpans. Occurs in extremely saline situations adjacent to mangroves, usually in slight depressions which form salt scalds after the accumulated seawater evaporates. Soils are fine anaerobic saline silts. Intertidal. (BVG1M: 35b).

7.1.2b: *Sporobolus virginicus* (saltwater couch) grassland. Slightly elevated marine plains on fine anaerobic saline silts of the saline littoral zone. Slightly elevated marine plains on fine anaerobic saline silts of the saline littoral zone. Intertidal. (BVG1M: 35b).

<b>Short description:</b>	<i>Sporobolus virginicus</i> grassland, samphire open forbland to sparse forbland and bare saltpans on plains adjacent to mangroves
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), E22b, E107, D107; Kemp and Morgan (1999), 2; Kemp et al. (1999), 2; Neldner and Clarkson (1995), 194; Tracey and Webb (1975), 22b
<b>Subregions:</b>	1, 2, 3, 9, (6), (7), (8)
<b>Protected areas:</b>	Halifax Bay Wetlands NP, Girringun NP, Hinchinbrook Island NP, Girramay NP, Paluma Range NP, Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Kurrimine Beach NP, Hull River NP, Ella Bay NP, Russell River NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Intertidal
<b>Special values:</b>	
<b>Comments:</b>	<p>7.1.2: This regional ecosystem occurs as relatively small patches among mangroves on higher and drier areas subject to inundation only by king tides. Small depressions favour salt scalds after the accumulated seawater evaporates. This regional ecosystem is threatened by activities such as building of rubbish tips, airstrips, and recreational driving. Some areas are in poor condition due to recreational vehicular activities, usually close to urban areas.</p> <p>7.1.2a: Distributed along the entire coast, but most extensive in the drier northern and southern sections of the bioregion.</p> <p>7.1.2b: Distributed along the entire coast, but most extensive in the drier northern and southern sections of the bioregion.</p>
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 6000 ha; Remnant 2021 5000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

### Regional ecosystem 7.1.3

**Description:** Schoenoplectus subulatus (bulrush) and/or Eleocharis dulcis (bulkuru) sparse sedgeland, or Melaleuca quinquenervia (swamp paperbark) shrubland to open forest. Occurs on poorly drained soils with a highly organic or peaty surface in conjunction with a permanent surface watertable (often slightly brackish), on seasonally flooded marine plains. Palustrine. (BVG1M: 34c).

Vegetation communities in this regional ecosystem include:

7.1.3a: Schoenoplectus subulatus (bulrush) and/or Eleocharis dulcis (bulkuru) sparse sedgeland. May include scattered Melaleuca quinquenervia and/or mangrove species. Swamps of permanent open water that fluctuate seasonally between freshwater and estuarine. Palustrine. (BVG1M: 34c).

7.1.3b: Melaleuca quinquenervia open forest to woodland, and shrubland to closed scrub. Transitional saline areas. Palustrine. (BVG1M: 22a).

7.1.3c: Open water. Dune swales. Palustrine. (BVG1M: 34c).

<b>Short description:</b>	Schoenoplectus subulatus and/or Eleocharis dulcis sparse sedgeland, or Melaleuca quinquenervia low open forest, in swamps which fluctuate periodically between freshwater and estuarine
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), E268, E33, D260i; Kemp and Morgan (1999), 3,19; Kemp et al. (1999), 3,17; Tracey and Webb (1975), 18
<b>Subregions:</b>	2, 1, 3, (9), (6), (7)
<b>Protected areas:</b>	Girramay NP, Hull River NP, Halifax Bay Wetlands NP, Gulngay NP, Daintree NP (CYPAL), Hinchinbrook Island NP, Maria Creek NP, Paluma Range NP, Ella Bay NP, Russell River NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	
<b>Comments:</b>	<p>7.1.3: Threatened by the creation of ponded pastures and other hydrological changes. Dieback of Melaleuca quinquenervia caused by increasing salinity (often due to man-induced hydrological changes) is widespread (e.g. adjacent to several major estuaries, particularly between Innisfail and Cardwell). A favoured habitat of, and often heavily dug up by, feral pigs, although this regional ecosystem appears to be resilient and recovers rapidly in the absence of pigs.</p> <p>7.1.3a: Scattered along the coast, best developed in areas southeast of Ingham, also between Cairns and Tully, and the mouth of the Hull River.</p> <p>7.1.3b: Scattered along the coastal margin.</p> <p>7.1.3c: Very uncommon and small in area, scattered along the coastal margin.</p>
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 2000 ha; Remnant 2021 2000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review

## Regional ecosystem 7.1.4

**Description:** Mangrove and vine forest closed scrub and closed forest to open forest. Inland margins of mangroves and estuaries. Intertidal. (BVG1M: 35a).

Vegetation communities in this regional ecosystem include:

7.1.4a: Mesophyll vine forest/mangrove complex. Canopy species include *Heritiera littoralis*, *Bruguiera gymnorhiza*, *Sonneratia alba*, *Barringtonia racemosa*, *Archontophoenix alexandrae*, *Elaeocarpus grandis*, *Melicope elleryana*, *Acacia mangium* and *Syzygium tierneyanum*. Inland margins of mangroves and estuaries. Intertidal. (BVG1M: 35a).

7.1.4b: Simple mesophyll vine forest with *Barringtonia racemosa* and/or *Hibiscus tiliaceus*, +/- *Heritiera littoralis* on mangrove fringes. Semi-permanently inundated brackish swamps. Intertidal. (BVG1M: 35a).

7.1.4c: Mangrove closed scrub and closed forest to open forest, with *Livistona drudei* emergents. Stream banks on upper limit of saline influence. Intertidal. (BVG1M: 35a).

7.1.4d: Riverine communities dominated by *Nypa fruticans*. Tidal stream banks at the upper limit of saline influence. Intertidal. (BVG1M: 35a).

<b>Short description:</b>	Mangrove and vine forest closed forest of the brackish zone
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), E189, D77, E77, A77, E148, E147; Kemp and Morgan (1999), 1; Kemp et al. (1999), 1; Tracey and Webb (1975), 22a
<b>Subregions:</b>	9, 2, 3, 1, (6), (7)
<b>Protected areas:</b>	Gulngay NP, Daintree NP (CYPAL), Girringun NP, Russell River NP, Hull River NP, Maria Creek NP, Hinchinbrook Island NP, Girramay NP, Ella Bay NP, Carello Palm Swamp CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Intertidal
<b>Special values:</b>	7.1.4: Habitat for threatened epiphyte species (e.g. tassel ferns and orchids). 7.1.4d: These <i>Nypa fruticans</i> communities are of special local significance. The very small population near Lucinda is the only known locality in the Wet Tropics.
<b>Comments:</b>	7.1.4: Scattered along most of the coastal margin. 7.1.4a: Scattered along most of the northern coastal margin. 7.1.4b: Scattered along the coastal margin from Tully north. 7.1.4c: Rare, along the southern coastal margin. 7.1.4d: Rare, currently only known from near Lucinda.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 300 ha; Remnant 2021 300 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	A rare ecosystem threatened by drainage changes and weed invasion.

## Regional ecosystem 7.1.5

**Description:** *Melaleuca viridiflora* (broad leaf tea-tree) or *Melaleuca* spp. +/- *Acacia* spp. +/- mangrove spp. open woodland to open forest and shrubland. Plains adjacent to mangroves. Palustrine. (BVG1M: 22b).

**Short description:** *Melaleuca viridiflora* or *Melaleuca* spp. +/- *Acacia* spp. +/- mangrove spp. woodland on plains adjacent to mangroves

**Supplementary descriptions:** Stanton and Stanton (2005), E221, A221; Kemp et al. (1999), 6, 7, 9,10; Tracey and Webb (1975), 18

**Subregions:** 1, 2, (3), (9), (8)

**Protected areas:** Halifax Bay Wetlands NP, Girramay NP, Hinchinbrook Island NP, Paluma Range NP, Hull River NP, Gulngay NP, Daintree NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 7.1.5: Habitat for threatened species include *Myrmecodia beccarii* (ant plant) and *Hypochrysops apollo* (apollo jewel butterfly).

**Comments:** 7.1.5: A significant proportion of this regional ecosystem is a result of reclamation of naturally saline or estuarine flats through man-made bund walls, which prevent tidal intrusion, and enable *Melaleuca* and *Acacia* spp. to regenerate, whilst still retaining species more typical of saline environments (such as *Sporobolus virginicus*). A rare ecosystem with very little representation in protected tenures.

**Estimated extent:**<sup>1</sup> Pre-clearing 400 ha; Remnant 2021 500 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.2.1

**Description:** Mesophyll vine forest. Beach ridges and sand plains of beach origin, mainly in small patches in the lee of coastal beach ridges in very high rainfall areas. Contains Palustrine. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

7.2.1a: Complex mesophyll or mesophyll vine forest. Lowlands on beach sands, of the very wet and wet rainfall zone. Not a Wetland. (BVG1M: 3a).

7.2.1b: Mesophyll vine forest with *Intsia bijuga*, *Beilschmiedia obtusifolia*, and *Palaquium galactoxylon*. Calcareous coastal sands, of the very wet rainfall zone. Not a Wetland. (BVG1M: 3a).

7.2.1c: Closed forest with *Calophyllum inophyllum*, *Terminalia arenicola*, *Dillenia alata*, *Myristica insipida*, *Planchonella obovata*, *Millettia pinnata*, and *Hibiscus tiliaceus*. Beach ridge deposits adjacent to the foredune, in the very wet rainfall zone. Not a Wetland. (BVG1M: 3a).

7.2.1d: Swampy mesophyll vine forest with *Archontophoenix alexandrae* (feather palm) in the sub-canopy. Seasonally inundated lowland areas on dune sands. Palustrine. (BVG1M: 4a).

7.2.1e: Simple Notophyll vine forest with *Syzygium angophoroides*, on sands of beach origin. Dune sands. Palustrine. (BVG1M: 3a).

7.2.1f: Simple notophyll vine forest with *Blepharocarya involucrigera*, *Acacia celsa*, *Flindersia bourjotiana*, *Syzygium angophoroides*, *Dillenia alata*, *Grevillea baileyana*, *Syzygium kuranda*, *Calophyllum sil*, *Backhousia hughesii*, *Acronychia acronychioides*. Shallow sand deposits in lowland swamps. Palustrine. (BVG1M: 3a).

7.2.1g: Mesophyll vine forest with *Archontophoenix alexandrae* (feather palm). Seasonally impeded drainage on dune sands. Palustrine. (BVG1M: 4a).

7.2.1h: Mesophyll vine forest with *Licuala ramsayi* (fan palm). Seasonally impeded drainage on dune sands. Palustrine. (BVG1M: 4a).

7.2.1i: Mesophyll vine forest. Lowlands on dune sands, of the very wet and wet rainfall zone. Not a Wetland. (BVG1M: 3a).

<b>Short description:</b>	Mesophyll vine forest on beach ridges and sand plains of beach origin
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), D2a, D2b, D3a, D3b, D72, D228, A228, D225, D52, D81, D1a; Kemp and Morgan (1999), 5; Kemp et al. (1999), 5; Tracey and Webb (1975), 2b
<b>Subregions:</b>	9, 3, (2), (6), (3.2), (7), (1)
<b>Protected areas:</b>	Kurrimine Beach NP, Daintree NP (CYPAL), Russell River NP, Hinchinbrook Island NP, Annan River (Yuku Baja-Muliku) RR, Gulngay NP, Frankland Group NP, Girramay NP, Hope Islands NP (CYPAL), Kurrimine Beach CP, Hull River NP, Ella Bay NP, Goold Island NP, Maria Creek NP, Etty Bay Road CP, Barnard Island Group NP, Annan River (Yuku Baja-Muliku) NP, Orpheus Island NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.2.1: Important fruit source for birds, and very significant for many migratory species. Habitat for threatened species including: <i>Gardenia actinocarpa</i> and <i>Arenga australasica</i> . High scenic value.
<b>Comments:</b>	7.2.1: A regional ecosystem of very limited extent on very nutrient depauperate sands. Threatened by housing and industrial development, and recreational disturbance. Information on condition and values of this regional ecosystem can be found in Lavarack (1991) and Hopkins et al. (1999). 7.2.1a: Coastal margin, mainly central and northern parts of the bioregion. 7.2.1b: Very rare, mapped only in the far north of the bioregion. 7.2.1c: Scattered along the coastal margin, mainly in the far north. 7.2.1d: Coastal margin, mainly central and northern parts of the bioregion. 7.2.1e: Coastal margin, mainly central and northern parts of the bioregion. 7.2.1f: Coastal margin, mainly central and northern parts of the bioregion. 7.2.1g: Feather palm forests also occur on alluvium as 7.3.3. Scattered along the coastal margin. 7.2.1h: Fan palm forests also occur on alluvium as 7.3.4. Very rare, coastal margin in central parts of the bioregion. 7.2.1i: Scattered along the coast, mainly in central and northern parts of the bioregion.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 3000 ha; Remnant 2021 900 ha
<b>VM class:</b>	Endangered
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.2.2

**Description:** Notophyll to microphyll vine forest. Species commonly include *Cupaniopsis anacardioides*, *Diospyros geminata*, *Canarium australianum*, *Alphitonia excelsa*, *Acacia crassicaarpa*, *A. mangium*, *Hibiscus tiliaceus*, *Pleiogynium timorense*, *Chionanthus ramiflorus*, *Blepharocarya involucrigera*, *Mimusops elengi*, *Polyalthia nitidissima*, *Millettia pinnata*, *Geijera salicifolia*, *Ficus opposita*, *Sersalisia sericea*, *Terminalia muelleri*, *T. arenicola*, *Drypetes deplanchei*, and *Exocarpos latifolius*. Beach ridges and sand plains of beach origin. Contains Palustrine. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

7.2.2a: Notophyll vine forests, often with *Acacia* emergents. Species commonly include *Cupaniopsis anacardioides*, *Diospyros geminata*, *Canarium australianum*, *Alphitonia excelsa*, *Acacia crassicaarpa*, *Pleiogynium timorense*, *Chionanthus ramiflorus*, *Mimusops elengi*, *Polyalthia nitidissima*, *Millettia pinnata*, *Geijera salicifolia*, *Ficus opposita*, *Sersalisia sericea*, *Terminalia muelleri*, *T. arenicola*, *Drypetes deplanchei*, and *Exocarpos latifolius*. Lowlands on dune sands, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 3a).

7.2.2b: Closed scrub and low closed forest with *Blepharocarya involucrigera*, *Atractocarpus sessilis*, *Choriceras tricornis*, *Endiandra glauca*, *Cyclophyllum multiflorum*, *Syzygium banksii*, *Polyscias australiana*, *Terminalia muelleri*, *Dillenia alata* and *Acacia polystachya*. Dune sands. Not a Wetland. (BVG1M: 3a).

7.2.2c: Simple notophyll vine forest dominated by *Blepharocarya involucrigera*. Sites subject to episodic disturbance or a seral stage of recovery from a single event or period of disturbance. Dune sands. Not a Wetland. (BVG1M: 3a).

7.2.2d: *Acacia mangium* closed forest, with *A. crassicaarpa*, *Hibiscus tiliaceus*, *Cupaniopsis anacardioides*, *Planchonella obovata*, *Breynia cernua*, *Morinda citrifolia* and *Terminalia muelleri*. Dune sands. Not a Wetland. (BVG1M: 3a).

7.2.2e: Low notophyll vine thicket. Transported coastal cobble and boulder ridges. Not a Wetland. (BVG1M: 3a).

7.2.2f: Microphyll vine thicket occurring in clumps/groves. Inter-grove areas are occupied by sparse grasses and herbs. Common tree species include *Mimusops elengi*, *Terminalia muelleri*, *Diospyros compacta*, *Sersalisia sericea*, *Ficus obliqua*, *Pleiogynium timorense*, *Canarium australianum*, *Exocarpos latifolius*, *Celtis paniculata*, *Denhamia fasciculiflora*, *Brucea javanica*, *Ximenia americana*, *Acacia oraria*, *Acacia leptocarpa* and *Persoonia falcata*. Coastal foredunes. Not a Wetland. (BVG1M: 3a).

7.2.2g: Vine forest with *Hibiscus tiliaceus* and *Calophyllum australianum*. Intermittently inundated narrow dune swales. Palustrine. (BVG1M: 3a).

7.2.2h: Medium to tall semi-deciduous notophyll vine forest with species often including *Melia azedarach*, *Pleiogynium timorense*, *Ganophyllum falcatum*, *Falcataria toona*, *Ficus racemosa*, *Argyrodendron polyandrum*, and *Alstonia scholaris*. Dune sands. Not a Wetland. (BVG1M: 3a).

<b>Short description:</b>	Notophyll to microphyll vine forest on sands of beach origin
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), D45, D7b, D281, G234, CG234, D235, D191, D185, D109; Kemp and Morgan (1999), 5; Kemp et al. (1999), 5; Tracey and Webb (1975), 7b
<b>Subregions:</b>	9, 1, 8, (2), (3), (6), (7), (3.2)
<b>Protected areas:</b>	Ngalba-bulal NP (CYPAL), Halifax Bay Wetlands NP, Daintree NP (CYPAL), Girramay NP, Orpheus Island NP, Annan River (Yuku Baja-Muliku) RR, Brook Islands NP, Goold Island NP, Hinchinbrook Island NP, Frankland Group NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.2.2: Important fruit source for birds, and very significant for many migratory species. High scenic value. 7.2.2e: A very rare and unusual landform.

<b>Comments:</b>	<p>7.2.2: Includes unusual examples on Palm Island Group occurring on transported coastal granite cobble and boulder ridges adjacent to dunes. Residential development and widening of the Cook Highway between Oak Beach and White Cliffs are major threats. Information on condition and values of this regional ecosystem can be found in Lavarack (1991) and Hopkins et al. (1999). Guinea grass (<i>Megathyrsus maximus</i>) is invasive of disturbed areas, subsequently providing fuel for fires that are common in the surrounding woodlands. <i>Lantana camara</i> is also present, particularly in southern areas.</p> <p>7.2.2a: Coastal margin, mainly north of Cairns or south of Ingham.</p> <p>7.2.2b: Rare, along the coastal fringe in the north of the bioregion.</p> <p>7.2.2c: Coastal fringe in the north of the bioregion.</p> <p>7.2.2d: Coastal fringe, particularly in southern parts of the bioregion.</p> <p>7.2.2e: Occurs only on the Palm Island Group.</p> <p>7.2.2f: Scattered along the coastal fringe of the bioregion.</p> <p>7.2.2g: Scattered along the coastal fringe of the bioregion.</p> <p>7.2.2h: Mapped only on Great Palm Island.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 700 ha; Remnant 2021 400 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	A rare ecosystem threatened by housing and industrial development, recreational disturbance and weed invasion.

## Regional ecosystem 7.2.3

<b>Description:</b>	<p><i>Corymbia tessellaris</i> (Moreton Bay ash) and/or <i>Acacia crassicaarpa</i> (beach wattle) and/or <i>C. intermedia</i> (pink bloodwood) and/or <i>C. clarksoniana</i> (Clarkson's bloodwood) woodland to closed forest. Beach ridges, predominantly of Holocene age. Not a Wetland. (BVG1M: 9e).</p> <p>Vegetation communities in this regional ecosystem include:</p> <p>7.2.3a: <i>Corymbia tessellaris</i>, <i>C. clarksoniana</i> (and/or <i>C. intermedia</i>), <i>Melaleuca dealbata</i> +/- <i>Lophostemon suaveolens</i> woodland to closed forest, with <i>Acacia mangium</i>, <i>A. crassicaarpa</i>, <i>Canarium australianum</i> and <i>Deplanchea tetraphylla</i>. Unweathered low prograding beach dunes, predominantly of Holocene age. Not a Wetland. (BVG1M: 9e).</p> <p>7.2.3b: <i>Corymbia tessellaris</i> and <i>Corymbia clarksoniana</i> (or <i>C. intermedia</i>), woodland to open forest. Beach ridges, predominantly of Holocene age. Not a Wetland. (BVG1M: 9e).</p> <p>7.2.3c: <i>Corymbia tessellaris</i> and <i>Corymbia clarksoniana</i> (or <i>C. intermedia</i>), woodland to open forest, with a very well-developed vine forest understorey (due to infrequent burning). Beach ridges, predominantly of Holocene age. Not a Wetland. (BVG1M: 9e).</p> <p>7.2.3d: <i>Corymbia intermedia</i> open forest. Beach ridges, predominantly of Holocene age. Not a Wetland. (BVG1M: 9e).</p> <p>7.2.3e: <i>Corymbia intermedia</i> open forest, with a very well-developed vine forest understorey (due to infrequent burning). Beach ridges, predominantly of Holocene age. Not a Wetland. (BVG1M: 9e).</p> <p>7.2.3f: <i>Acacia crassicaarpa</i> open to closed forest. Beach ridges, predominantly of Holocene age. Not a Wetland. (BVG1M: 28b).</p> <p>7.2.3g: <i>Corymbia clarksoniana</i> woodland to open forest. Beach ridges, predominantly of Holocene age. Not a Wetland. (BVG1M: 9e).</p> <p>7.2.3h: <i>Corymbia tessellaris</i>, <i>Acacia crassicaarpa</i>, <i>Melaleuca leucadendra</i> and <i>M. viridiflora</i> woodland. Prograding dunes, often mixed with alluvium. Not a Wetland. (BVG1M: 9e).</p> <p>7.2.3i: <i>Acacia crassicaarpa</i> low closed forest (wind sheared). Foredunes. Not a Wetland. (BVG1M: 28b).</p> <p>7.2.3j: <i>Corymbia clarksoniana</i>, <i>C. tessellaris</i> and <i>Acacia crassicaarpa</i> woodland. Transported coastal cobble and boulder ridges. Not a Wetland. (BVG1M: 9e).</p>
<b>Short description:</b>	<i>Corymbia tessellaris</i> and/or <i>Acacia crassicaarpa</i> and/or <i>C. intermedia</i> and/or <i>C. clarksoniana</i> woodland to closed forest on beach ridges (predominantly Holocene)
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), D117, D73, D73v, D74, D74v, D151, G43, D43, D88, D98, D104; Kemp and Morgan (1999), 6; Kemp et al. (1999), 6; Neldner and Clarkson (1995), 20, 53C, 55, 93, 193, 198; Tracey and Webb (1975), 17 (in part)
<b>Subregions:</b>	3, 2, 1, 6, (7), (9), (8)
<b>Protected areas:</b>	Girramay NP, Hinchinbrook Island NP, Gulngay NP, Paluma Range NP, Ella Bay NP, Kurrimine Beach NP, Hull River NP, Daintree NP (CYPAL), Russell River NP, Giringun NP, Halifax Bay Wetlands NP, Goold Island NP, Orpheus Island NP, Ngalba-bulal NP (CYPAL), Moeresby Range NP, Family Islands NP, Clump Mountain NP



<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.2.3: Potential habitat for NCA listed species: <i>Acacia homaloclada</i> . 7.2.3j: A very rare and unusual landform.
<b>Comments:</b>	7.2.3: Subject to encroachment by housing developments. Many areas in poor condition due to weed invasion and vehicular disturbance. 7.2.3a: Distributed along most sections of coastline in the bioregion. 7.2.3b: Distributed along most sections of coastline in the bioregion. 7.2.3c: This vegetation community may be considered a condition state - a low burning frequency has enabled encroachment by vine forest species. Distributed along most sections of coastline in the bioregion. 7.2.3d: Central wetter parts of the bioregion from approximately Cardwell to Cape Tribulation. 7.2.3e: This vegetation community may be considered a condition state - a low burning frequency has enabled encroachment by vine forest species. Central wetter parts of the bioregion from approximately Cardwell to Cape Tribulation. 7.2.3f: Scattered along the coast over most of the bioregion. 7.2.3g: Scattered along the coast over most of the bioregion. 7.2.3h: Rare, scattered along the coast, especially the Orient southeast of Ingham. 7.2.3i: Scattered along the coastal fringe of the bioregion. 7.2.3j: Restricted to the Palm Islands.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 12000 ha; Remnant 2021 7000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 7.2.4

**Description:** *Eucalyptus* spp. (often *E. pellita* (red stringybark) or *Corymbia intermedia* (pink bloodwood) open forest and/or *Lophostemon suaveolens* (swamp mahogany) open forest. Occurs on swampy sandplains and Pleistocene beach ridges on a variety of soils including dark grey sands and grey sandy clay loam. Contains Palustrine. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

7.2.4a: *Corymbia intermedia*, *Eucalyptus pellita*, *Lophostemon suaveolens* and *Melaleuca dealbata* woodland to open forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

7.2.4b: *Eucalyptus tereticornis*, *Corymbia tessellaris*, *E. pellita*, *C. intermedia*, *Melaleuca dealbata*, *Lophostemon suaveolens*, *Acacia mangium* and *A. crasscarpa* woodland to open forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

7.2.4c: *Eucalyptus tereticornis*, *Corymbia tessellaris*, *E. pellita*, *C. intermedia*, *Melaleuca dealbata*, *Lophostemon suaveolens*, *Acacia mangium* and *A. crasscarpa*, woodland to open forest with a very well-developed vine forest understorey. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

7.2.4d: *Eucalyptus pellita* and *Corymbia intermedia*, +/- *C. tessellaris*, *E. tereticornis*, *Lophostemon suaveolens*, *Acacia celsa*, *A. cincinnata*, *A. mangium* and *A. flavescens* open forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

7.2.4e: *Eucalyptus pellita* and *Corymbia intermedia*, +/- *C. tessellaris*, *E. tereticornis* and *Lophostemon suaveolens*, woodland to open forest with a very well-developed vine forest understorey. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

7.2.4f: *Lophostemon suaveolens* +/- *Corymbia tessellaris*, *Melaleuca viridiflora* var. *attenuata*, and *M. dealbata* woodland to open forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

7.2.4g: *Melaleuca dealbata* +/- *M. leucadendra* woodland to open forest. Weathered relict beach ridges. Palustrine. (BVG1M: 22b).

7.2.4h: *Melaleuca dealbata*, *Lophostemon suaveolens*, *Corymbia tessellaris*, *Acacia mangium* and *Livistona drudei* open forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

7.2.4i: *Eucalyptus portuensis* open forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9d).

7.2.4j: *Allocasuarina littoralis*, *Corymbia intermedia* and *Lophostemon suaveolens* shrubland, woodland and open forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

7.2.4k: *Acacia mangium* and *A. celsa* open forest to closed forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 28b).

7.2.4l: *Melaleuca leucadendra*, *M. viridiflora*, *M. dealbata*, *Acacia leptocarpa*, *A. crasscarpa*, *Excoecaria agallocha*, *Hibiscus tiliaceus* and *Thespesia populnea* woodland to low open forest. Weathered relict beach ridges. Palustrine. (BVG1M: 22b).

7.2.4m: *Acacia celsa* open forest to closed forest. Weathered relict beach dunes. Not a Wetland. (BVG1M: 28b).

7.2.4n: *Eucalyptus tereticornis* woodland to open forest. Weathered relict beach ridges. Not a Wetland. (BVG1M: 9e).

- Short description:** *Eucalyptus* spp. (often *E. pellita* or *Corymbia intermedia*) open forest and/or *Lophostemon suaveolens* open forest on swampy sand plains and Pleistocene beach ridges
- Supplementary descriptions:** Stanton and Stanton (2005), D80, D80v, D119, D16g, D16gv, D221, D149, D105, D32, D15b, D12c, D13a, D12a, D91, D210, D16b, D16bv; Kemp and Morgan (1999), 8, 9, 12; Kemp et al. (1999), 10, 11; Tracey and Webb (1975), 17 (in part)
- Subregions:** 2, 3, 1, (9), (7), (6)
- Protected areas:** Gulngay NP, Girramay NP, Halifax Bay Wetlands NP, Hull River NP, Daintree NP (CYPAL), Hinchinbrook Island NP, Kurrimine Beach NP, Russell River NP, Paluma Range NP, Maria Creek NP, Girringun NP, Ella Bay NP
- Extent in reserves:** High
- Wetland:** Contains Palustrine
- Special values:** 7.2.4: Biogeographically significant as remnants of previous coastlines and for understanding chrono sequences of primary soil profile development.  
7.2.4i: The occurrence of *Eucalyptus portuensis* on dune sands is a very unusual association.

<b>Comments:</b>	7.2.4: A very variable, and once extensive, vegetation complex, distinguished by the combination of old stranded dune systems with characteristic dark, loose sand near the surface, and the common occurrence of <i>Corymbia intermedia</i> , <i>Lophostemon suaveolens</i> , and <i>Xanthorrhoea johnsonii</i> . Some areas are subject to clearing for agricultural and residential development. Threatened by rainforest invasion. Occurs sporadically along the full length of the Wet Tropics coastline, particularly prevalent in the Tully-Murray River lowlands. Many areas in poor condition due to weed invasion, vehicular disturbance or previous clearing activities. 7.2.4c: Well-developed vine forest understorey is probably a condition state caused by infrequent burning. 7.2.4e: Well developed vine forest understorey is probably a condition state caused by infrequent burning.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 6000 ha; Remnant 2021 3000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 7.2.5

**Description:** Mesophyll to notophyll vine forest of *Syzygium forte* subsp. *forte* (white apple). Beach ridges and sand plains of beach origin. Not a Wetland. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

7.2.5a: Simple mesophyll to notophyll vine forest with *Syzygium forte* subsp. *forte*, *Buchanania arborescens*, *Pleiogynium timorense*, *Dillenia alata*, *Litsea fawcettiana*, and *Chionanthus ramiflorus*. Beach ridges and sand plains of beach origin. Not a Wetland. (BVG1M: 3a).

7.2.5b: *Acacia polystachya* dominated communities, mostly closed forest but includes some woodlands, with a lower layer of vine forest species. Beach ridges and sand plains of beach origin. Not a Wetland. (BVG1M: 28b).

<b>Short description:</b>	Mesophyll to notophyll vine forest of <i>Syzygium forte</i> subsp. <i>forte</i> on sands of beach origin
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), D75, D40
<b>Subregions:</b>	2, 1, 3, (7)
<b>Protected areas:</b>	Girramay NP, Gulngay NP, Ella Bay NP, Russell River NP, Moresby Range NP, Goold Island NP, Halifax Bay Wetlands NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.2.5: A very attractive regional ecosystem aesthetically (due to attractive form of <i>Syzygium forte</i> subsp. <i>forte</i> ). Important fruit source for birds, and very significant for many migratory species.
<b>Comments:</b>	7.2.5: Threatened by housing and industrial development, and recreational disturbance, particularly in the vicinity of Forrest Beach. A regional ecosystem of very small extent with approximately one third of that extent outside protected tenures. This regional ecosystem is possibly derived from sclerophyll communities via gradual invasion of <i>Syzygium forte</i> subsp. <i>forte</i> . From Forrest Beach to near Gordonvale, most common in the Herbert and Tully subregions.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 600 ha; Remnant 2021 400 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 7.2.6

**Description:** Mosaic of clumps of notophyll vine forest, sclerophyll spp. shrubland and open woodland, and bare sand blows. Aeolian dunes. Not a Wetland. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

7.2.6a: Open shrubland to low open forest. Aeolian dunes. Not a Wetland. (BVG1M: 28a).

7.2.6b: Evergreen notophyll vine thicket with *Acacia crassicaarpa*, *Elaeodendron melanocarpum*, *Aglaia elaeagnoidea* and *Drypetes deplanchei*. Aeolian dunes. Not a Wetland. (BVG1M: 3a).

7.2.6c: Complex of open to closed shrublands, grasslands and low to medium woodlands and forests. Includes pure stands of *Casuarina equisetifolia*, and open to closed woodlands dominated by *Acacia crassicaarpa*, *Syzygium forte* subsp. *forte*, and *Calophyllum inophyllum* and *Pandanus* sp. Foredunes of aeolian dunes on Hinchinbrook island. Not a Wetland. (BVG1M: 28a).

**Short description:** Mosaic of clumps of notophyll vine forest, sclerophyll spp. shrubland and open woodland, and bare sand blows on aeolian dunes

**Supplementary descriptions:** Stanton and Stanton (2005), D44 (Qld Herbarium and WTMA (2005) D44a), D206, D208; Tracey and Webb (1975), 17 (in part)

**Subregions:** 2, 6

**Protected areas:** Hinchinbrook Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.2.6: A very rare ecosystem on an unstable dune system subject to change, however all is within National Park.  
7.2.6a: Hinchinbrook Island.  
7.2.6b: Hinchinbrook Island.

**Estimated extent:**<sup>1</sup> Pre-clearing 300 ha; Remnant 2021 300 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.2.7

**Description:** *Casuarina equisetifolia* (coast sheoak) +/- *Corymbia tessellaris* (Moreton Bay ash) open forest +/- groved vine forest shrublands. Beach strand and foredune. Not a Wetland. (BVG1M: 28a).

Vegetation communities in this regional ecosystem include:

7.2.7a: Complex of open shrubland to closed shrubland, grassland, low woodland and open forest. Includes pure stands of *Casuarina equisetifolia*, and *Acacia crassicarpa*, *Syzygium forte* subsp. *forte*, *Calophyllum inophyllum* and *Pandanus* spp. woodland to open forest. Beach strand and foredune. Not a Wetland. (BVG1M: 28a).

7.2.7b: Groved shrubland with *Corymbia tessellaris*, *Casuarina equisetifolia* and vine forest species including *Canarium australianum*, *Terminalia arenicola*, *Sersalisia sericea*. Alluvial terrace behind coastal boulder ridge, only on the Palm Islands. Not a Wetland. (BVG1M: 28a).

7.2.7c: Areas of open sand. Coastal dunes (excluding the beach). Not a Wetland. (BVG1M: 28d).

**Short description:** *Casuarina equisetifolia* +/- *Corymbia tessellaris* open forest +/- groved vine forest shrublands on strand and foredunes

**Supplementary descriptions:** Stanton and Stanton (2005), D44, D236, A236, D260j; Kemp and Morgan (1999), 4; Kemp et al. (1999), 4; Tracey and Webb (1975), 17 (in part)

**Subregions:** 1, 3, 2, 9, (7), (8), (6)

**Protected areas:** Girramay NP, Gulngay NP, Ella Bay NP, Daintree NP (CYPAL), Hull River NP, Orpheus Island NP, Kurrimine Beach NP, Hinchinbrook Island NP, Paluma Range NP, Girringun NP, Halifax Bay Wetlands NP, Russell River NP, Ngalba-bulal NP (CYPAL), Goold Island NP, Annan River (Yuku Baja-Muliku) NP, Frankland Group NP, Annan River (Yuku Baja-Muliku) RR, Brook Islands NP, Fitzroy Island NP, Macalister Range NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.2.7b: This regional ecosystem occurs on a very unusual landform.

**Comments:** 7.2.7: Extremely vulnerable to weed invasion, and subject to recreational disturbance and encroachment by housing developments. Most examples are invaded by weeds, many quite severely. Common weed species include *Sphagneticola trilobata* (Singapore Daisy), *Cenchrus echinatus*, *Melinis repens*, *Tridax procumbens*, *Megathyrsus maximus* (Guinea grass), and *Mesosphaerum suaveolens*.  
7.2.7a: Occurs on the majority of foredunes in the Wet Tropics.  
7.2.7b: Palm Islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem subject to weed invasion and damage caused by recreation.

## Regional ecosystem 7.2.8

**Description:** *Melaleuca leucadendra* (weeping tea tree) open forest to woodland. Sands of beach origin. Palustrine. (BVG1M: 22b).

**Short description:** *Melaleuca leucadendra* open forest to woodland on sands of beach origin

**Supplementary descriptions:** Stanton and Stanton (2005), D38; Tracey and Webb (1975), 17 (in part)

**Subregions:** 2, 9, 1, 3, (6), (7), (8)

**Protected areas:** Girramay NP, Hinchinbrook Island NP, Daintree NP (CYPAL), Gulngay NP, Russell River NP, Paluma Range NP, Kurrimine Beach NP, Hull River NP, Halifax Bay Wetlands NP, Ella Bay NP, Anderson Street CP, Daintree NP, Moresby Range NP

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 7.2.8: Potential habitat for NCA listed species: *Nepenthes mirabilis* (Bramston Beach), *Piper mestonii*.

**Comments:** 7.2.8: Threatened by housing developments, and changes to hydrology. Distributed patchily along the entire coastline of the Wet Tropics, particularly common in northern areas.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Less than 30% remains unaffected by severe degradation (weed invasion and fragmentation) and less than 10 000 Ha remain.

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## Regional ecosystem 7.2.9

**Description:** *Melaleuca quinquenervia* (swamp paperbark) shrubland to closed forest, or *Lepironia articulata* (grey sedge) open to closed sedgeland. Dune swales and swampy sandplains of beach origin. Palustrine. (BVG1M: 22a).

Vegetation communities in this regional ecosystem include:

7.2.9a: *Melaleuca quinquenervia* open forest to woodland and shrubland. Dune swales and swampy sandplains of beach origin. Palustrine. (BVG1M: 22a).

7.2.9b: Mixed sedgeland-shrubland complex with *Melaleuca quinquenervia*. Perennially inundated peat soils. Palustrine. (BVG1M: 22a).

7.2.9c: *Lepironia articulata* sedgeland. Permanent swamp with deep deposits of fibrous peat. Palustrine. (BVG1M: 34c).

7.2.9d: *Melaleuca quinquenervia* and *Acacia crassicaarpa* open forest to woodland. Sandy soils with organic hardpan layer at depth. Palustrine. (BVG1M: 22a).

**Short description:** *Melaleuca quinquenervia* shrubland to closed forest, or *Lepironia articulata* open to closed sedgeland, on dune swales and swampy sand plains of beach origin

**Supplementary descriptions:** Stanton and Stanton (2005), D33, D92, D76, D84, D96; Kemp and Morgan (1999) 7; Tracey and Webb (1975), 17 (in part)

**Subregions:** 3, 2, (1), (9), (6), (7)

**Protected areas:** Kurrimine Beach NP, Girramay NP, Gulngay NP, Etty Bay Road CP, Russell River NP, Hinchinbrook Island NP, Hull River NP, Daintree NP (CYPAL), Ella Bay NP

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 7.2.9: Potential habitat for NCA listed species: *Livistona drudei*, *Nepenthes mirabilis* (Bramston Beach).

**Comments:** 7.2.9: Inappropriate burning may threaten the persistence of the peat layer in this regional ecosystem. Distributed in most near-coastal parts of the Wet Tropics, and particularly well-developed in the Tully and Innisfail subregions.

**Estimated extent:**<sup>1</sup> Pre-clearing 4000 ha; Remnant 2021 3000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Less than 30% remains unaffected by severe degradation (changes to hydrology, pig damage and weed invasion) and less than 10 000 Ha remain.

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## Regional ecosystem 7.2.10

**Description:** Shrubland, sedgeland and heath complex with *Thryptomene oligandra* and/or *Asteromyrtus* spp., +/- *Melaleuca quinquenervia* (swamp paperbark). Sandplains of beach origin. Contains Palustrine. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

7.2.10a: *Thryptomene oligandra* low open forest, closed shrubland and heath complex. Longitudinal sand dune systems. Not a Wetland. (BVG1M: 29a).

7.2.10b: *Asteromyrtus lysicephala*, *Asteromyrtus angustifolia*, *Thryptomene oligandra*, *Acacia crassicarpa*, *Jacksonia thesioides*, *Leucopogon yorkensis*, *Hibbertia banksii*, *Cyclophyllum coprosmoides* and *Aidia racemosa* open to closed scrub and heath. Longitudinal sand dune systems. Not a Wetland. (BVG1M: 29a).

7.2.10c: Low open forest, shrubland and sedgeland complex with *Melaleuca quinquenervia*, *Asteromyrtus lysicephala*, *Deplanchea tetraphylla*, *Dillenia alata*, *Gahnia sieberiana*, *Pandanus* sp., *Lepironia articulata*, *Nepenthes mirabilis*, *Blechnum indicum*, *Myrmecodia beccarii*. Permanently moist areas of deep fibrous peat. Palustrine. (BVG1M: 29a).

7.2.10d: *Allocasuarina littoralis* woodland to open forest. On aeolian dunes at Yarrabah. Not a Wetland. (BVG1M: 28a).

7.2.10e: *Acacia flavescens*, *Allocasuarina littoralis* and *Allocasuarina torulosa* low shrubby open forest to woodland. Aeolian dunes at Yarrabah. Not a Wetland. (BVG1M: 28a).

<b>Short description:</b>	Shrubland, sedgeland and heath complex with <i>Thryptomene oligandra</i> and/or <i>Asteromyrtus</i> spp. +/- <i>Melaleuca quinquenervia</i> on sand plains of beach origin
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), D215, D171, D176, D145, D217, A217; Tracey and Webb (1975), 17 (in part)
<b>Subregions:</b>	3
<b>Protected areas:</b>	
<b>Extent in reserves:</b>	No representation
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.2.10: Notable for the plant species occurring at extremes of their range (species which are more typical of the Cape York bioregion).
<b>Comments:</b>	7.2.10: A rare ecosystem, with none represented on protected tenures. Restricted to the Yarrabah area. 7.2.10a: Restricted to the Yarrabah area. 7.2.10b: Restricted to the Yarrabah area. 7.2.10c: Restricted to the Yarrabah area. 7.2.10d: Restricted to the Yarrabah area. 7.2.10e: Restricted to the Yarrabah area.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 500 ha; Remnant 2021 500 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.2.11

**Description:** *Melaleuca viridiflora* (broad leaf tea tree) +/- *Lophostemon suaveolens* (swamp mahogany) +/- emergent *Eucalyptus* spp. woodland to open forest, or *Melaleuca viridiflora* var. *attenuata* open forest to woodland. Swampy sandplains of beach origin. Contains Palustrine. (BVG1M: 22b).

Vegetation communities in this regional ecosystem include:

7.2.11a: *Melaleuca viridiflora* woodland to open forest. Swampy sandplains of beach origin. Not a Wetland. (BVG1M: 22b).

7.2.11b: *Melaleuca viridiflora*, and *Lophostemon suaveolens* woodland. Swampy sandplains of beach origin. Palustrine. (BVG1M: 22b).

7.2.11c: *Melaleuca viridiflora*, *Lophostemon suaveolens* and *Allocasuarina littoralis* open shrubland. Swampy sandplains of beach origin. Not a Wetland. (BVG1M: 22b).

7.2.11d: Complex of *Melaleuca quinquenervia* shrubland and open forest, and *Melaleuca viridiflora*, *Lophostemon suaveolens* and *Allocasuarina littoralis* woodland and open forest. Narrow linear sand ridges and perennially inundated swales with deep peat soils, of a former prograding shoreline in the Cowley Beach area. Palustrine. (BVG1M: 22a).

7.2.11e: *Melaleuca viridiflora* var. *attenuata* open forest and woodland. Swampy dune swales and sand plains. Palustrine. (BVG1M: 22b).

7.2.11f: *Melaleuca quinquenervia* and *Melaleuca viridiflora* grassy open woodland. Semi-permanent swamps of coastal sand plains with fibrous peat soils. Palustrine. (BVG1M: 22a).

7.2.11g: *Corymbia clarksoniana*, *Eucalyptus platyphylla*, *Lophostemon suaveolens*, *E. drepanophylla* and *Melaleuca viridiflora* open woodland. Sand plains. Not a Wetland. (BVG1M: 21a).

7.2.11h: Grassland, probably dominated by *Imperata cylindrica* (all extinct). Weathered relict beach ridges, well inland. Not a Wetland. (BVG1M: 32a).

<b>Short description:</b>	<i>Melaleuca viridiflora</i> +/- <i>Lophostemon suaveolens</i> +/- emergent <i>Eucalyptus</i> spp. woodland to open forest, or <i>Melaleuca viridiflora</i> var. <i>attenuata</i> open forest to woodland, on swampy sand plains of beach origin
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), D78, D41, D93, D282, D216, D83, D86, D118; Kemp and Morgan (1999), 11; Tracey and Webb (1975), 17 (in part)
<b>Subregions:</b>	3, 2, (1), (9)
<b>Protected areas:</b>	Gulngay NP, Girramay NP, Girringun NP, Hinchinbrook Island NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.2.11: Habitat for threatened species including <i>Myrmecodia beccarii</i> (ant plant) and <i>Hypochrysops apollo</i> (apollo jewel butterfly).
<b>Comments:</b>	7.2.11: Distributed patchily along most of the Wet tropics coast, best developed in the Tully subregion. 7.2.11d: Cowley Beach. 7.2.11h: This is a grassland on dunes which was discernable on old aerial photography but was all cultivated/cleared before the mapping was done. Originally of very limited extent, and now extinct.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 2000 ha; Remnant 2021 1000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.3.1

**Description:** *Hemarthria uncinata* (matgrass) and/or *Ischaemum australe* (bluegrass) +/- *Sorghum* spp. grassland, and/or ephemeral sedgeland. Occurs on seasonally inundated coastal plains on humic gley, acid peat and gleyed podzolic alluvial soils. Palustrine. (BVG1M: 34c).

Vegetation communities in this regional ecosystem include:

7.3.1a: *Hemarthria uncinata* and/or *Ischaemum australe* var. *arundinaceum* closed grassland. Seasonally inundated lowland alluvial plains. Palustrine. (BVG1M: 34c).

7.3.1b: *Ischaemum* spp., *Imperata cylindrica* +/- *Sorghum* spp. grassland. Hard-setting, poorly drained alluvial soils. Palustrine. (BVG1M: 34c).

7.3.1c: Ephemeral freshwater swamp dominated by sedges. Drainage depressions of coastal floodplains. Palustrine. (BVG1M: 34c).



<b>Short description:</b>	Hemarthria uncinata and/or Ischaemum australe +/- Sorghum spp. grassland and/or ephemeral sedgelands on seasonally inundated alluvial plains
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A82, A62, A279; Kemp and Morgan (1999), 14, 15; Kemp et al. (1999), 13, 14; Tracey and Webb (1975), 23a (part)
<b>Subregions:</b>	1, 3, (2), (8)
<b>Protected areas:</b>	Eubenangee Swamp NP, Girringun NP, Orpheus Island NP
<b>Extent in reserves:</b>	Low
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	7.3.1: Habitat for threatened flora including Fimbristylis adjuncta. Remnants of a once extensive lowlands ecosystem in Australia, of which only 0.5% is considered to remain (Kirkpatrick et al., 1995). Eubenangee swamp examples are in excellent condition due to a National Parks management regime over the last few decades which has involved persistent and rigorous weed removal and prevention of new weed invasions. This is an outstanding example of weed management resulting in a show-case remnant of coastal lowlands grassland in good condition. This management is largely due to the efforts of motivated individuals within QPWS. It requires constant vigilance, for which the resources are usually scarce, hence the park is under severe threat due to possible future lapses in maintenance.
<b>Comments:</b>	<p>7.3.1: Formerly extensive on the Herbert River floodplain. This regional ecosystem includes areas of modified natural grassland in very poor condition, dominated by *Cynodon dactylon (couch), and introduced species such as *Mimosa pudica (sensitive weed) and *Chrysopogon aciculatus (Mackie's pest). The pre-European species composition of these areas are unknown, but are suspected to have been Ischaemum spp. and various herbs. This regional ecosystem is highly susceptible to weed invasion and species changes, due to hydrological changes and grazing pressure. Very sparsely distributed across most parts of the coastal lowlands (once much more common), now predominantly the Herbert and Innisfail subregions. What remains of this almost extinct ecosystem is highly modified, with the notable exception being those examples within Eubenangee Swamp NP, which remain in excellent condition. Most of the other remnants are dominated by *Cynodon dactylon (couch) which is currently considered to be introduced to Queensland. Other weeds of major concern include Mimosa pudica (sensitive weed), Chrysopogon aciculatus (Mackie's pest), Sporobolus natalensis (rat's-tail grass) and Psidium guajava (guava).</p> <p>7.3.1a: This regional ecosystem is highly susceptible to weed invasion and species changes, due to hydrological changes and grazing pressure. What remains of this almost extinct ecosystem is highly modified, with the notable exception being those examples within Eubenangee Swamp NP, which remain in excellent condition. Central coastal parts of the bioregion, predominantly the Herbert and Innisfail subregions. Weeds of major concern include Hymenachne amplexicaulis, some of those pasture grasses etc.</p> <p>7.3.1b: Possible former dominants (judging from low-density natives remaining) include Ischaemum spp., Imperata cylindrica, and Sorghum spp. This regional ecosystem should possibly be merged with 7.3.1a. Herbert River floodplain. The ecosystem is now almost entirely dominated by *Cynodon dactylon which is currently considered to be an introduced species. The ecosystem is highly modified by cattle and horse grazing, with all remnants in poor condition. The true pre-European species composition is not known.</p>
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 14000 ha; Remnant 2021 1000 ha
<b>VM class:</b>	Endangered
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.3.2

**Description:** Grasslands and sedgelands +/- *Melaleuca* spp. (paperbark). Poorly drained, periodically flooded, acid peat in depressions of volcanic craters. Palustrine. (BVG1M: 34f).

**Short description:** Grasslands and sedgelands +/- *Melaleuca* spp. within volcanic craters, often on peat

**Supplementary descriptions:** Stanton and Stanton (2005), B89

**Subregions:** 4

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Palustrine

**Special values:** 7.3.2: A very rare and unusual ecosystem. Pollen analyses of sediments which have accumulated in volcanic crater lakes and swamps are used to reconstruct vegetation and climate patterns through the past 80 000 years. Particularly important in this regard are Lynch's Crater (a peat mining lease covers this swamp) and Bromfield Swamp (presently subject to cattle grazing). Bromfield Swamp and Quincan Crater are situated close to the boundary between complex mesophyll and complex notophyll vine forest, providing records of vegetation changes through the last 8000-11 000 years. Lynch's Crater, at a similar altitude but existing under a much higher rainfall, provides evidence of a vegetation sequence from about 80 000 years BP to within the last 10 000 years.

**Comments:** 7.3.2: A rare ecosystem subject to weed invasion and peat mining. Occurs on the Atherton Tablelands. Various land uses have affected the condition of these swamps. For example past mining, grazing and pasture establishment attempts have changed the hydrology, species composition and vegetation structure in Lynches Crater, which is also currently surrounded by an edible bamboo plantation. In addition, cattle currently graze Bromfield Crater. The Mt Quincan swamp is in good condition, although the scoria cone is being quarried. These swamps may all be threatened by weed (including pasture species) invasion.

**Estimated extent:**<sup>1</sup> Pre-clearing 90 ha; Remnant 2021 80 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem subject to weed invasion and peat mining.

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### Regional ecosystem 7.3.3

**Description:** Mesophyll vine forest with *Archontophoenix alexandrae* (feather palm). Occurs in lowland swamps on gleyed podzolic alluvial soils derived from basaltic and granitic parent material, in the very wet rainfall zone. Palustrine. (BVG1M: 4a).

Vegetation communities in this regional ecosystem include:

7.3.3a: Mesophyll vine forest with *Archontophoenix alexandrae* (feather leaf palm). Occurs in lowland swamps on gleyed podzolic alluvial soils derived from basaltic and granitic parent material, in the very wet rainfall zone. Palustrine. (BVG1M: 4a).

7.3.3b: Mesophyll vine forest with *Archontophoenix alexandrae* (feather leaf palm) recovering from disturbance, with *Acacia celsa* canopy or emergents. Occurs in lowland swamps on gleyed podzolic alluvial soils derived from basaltic and granitic parent material, in the very wet rainfall zone. Palustrine. (BVG1M: 4a).

7.3.3c: Mesophyll vine forest with dominant *Syzygium tierneyanum* and/or *Barringtonia racemosa* and sub-canopy dominated by feather palms (*Archontophoenix alexandrae*). Seasonally flooded alluvium. Palustrine. (BVG1M: 4a).

<b>Short description:</b>	Mesophyll vine forest with <i>Archontophoenix alexandrae</i> on poorly drained alluvial plains
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A3a, A3a(a), A79; Kemp and Morgan (1999), 17; Kemp et al. (1999), 16; Tracey and Webb (1975), 3a
<b>Subregions:</b>	3, 2, 9, 7, (6), (1)
<b>Protected areas:</b>	Russell River NP, Gulngay NP, Ella Bay NP, Daintree NP (CYPAL), Eubenangee Swamp NP, Hull River NP, Malbon Thompson FR, Girramay NP, Moresby Range NP, Hinchinbrook Island NP, Djilgarin CP, Djiru NP, Carello Palm Swamp CP, Tully Gorge NP, Mount Mackay NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	7.3.3: Habitat for threatened plant species include <i>Phlegmariurus dalhousieanus</i> .
<b>Comments:</b>	7.3.3: Scattered across the coastal lowlands (once much more common), now predominantly the Innisfail and Tully subregions. In many areas drainage works on adjoining lands have altered vital hydrological and water table relationships within this ecosystem. Increased wind exposure associated with agricultural clearing is now also a threat. A favoured habitat of, and often heavily dug up by, feral pigs.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 5000 ha; Remnant 2021 2000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review

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## Regional ecosystem 7.3.4

<b>Description:</b>	Mesophyll vine forest with <i>Licuala ramsayi</i> (fan palm). Lowlands, lower foothills and uplands of the very wet rainfall zone, on humic gley alluvial soils with seasonally impeded drainage derived from metamorphic and granitic parent material. Palustrine. (BVG1M: 4a).
<b>Short description:</b>	Mesophyll vine forest with <i>Licuala ramsayi</i> on poorly drained alluvial plains and alluvial areas of uplands
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A3b; Kemp and Morgan (1999), 18; Tracey and Webb (1975), 3b
<b>Subregions:</b>	3, 9, 2, (8), (7)
<b>Protected areas:</b>	Djiru NP, Daintree NP (CYPAL), Hull River NP, Tully Gorge NP, Girramay NP, Russell River NP, Mount Lewis NP, Mount Mackay NP, Ngalba-bulal NP (CYPAL), Gulngay NP, Maria Creek NP, Kuranda NP, Daintree NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	7.3.4: Potential habitat for NCA listed species: <i>Austromuellera trinervia</i> , <i>Dendrobium nindii</i> , <i>Endiandra cooperana</i> , <i>Freycinetia marginata</i> , <i>Phlegmariurus phlegmarioides</i> .
<b>Comments:</b>	7.3.4: Scattered across the coastal lowlands (once much more common), now predominantly the Innisfail and Tully subregions. Only small patches have survived clearing. Still being cleared and fragmented for residential development around Mission Beach and Cape Tribulation. A favoured habitat of, and often heavily dug up by, feral pigs.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 3000 ha; Remnant 2021 1000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review

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## Regional ecosystem 7.3.5

<b>Description:</b>	<p><i>Melaleuca quinquenervia</i> (swamp paperbark) and/or <i>Melaleuca cajuputi</i> subsp. <i>platyphylla</i> (cajuput) closed forest to shrubland on poorly drained alluvial plains. Lowlands of the very wet and wet rainfall zone, on poorly drained peaty humic gley soils where the water table is near or above the ground for most of the year. Palustrine. (BVG1M: 22a).</p> <p>Vegetation communities in this regional ecosystem include:</p> <p>7.3.5a: <i>Melaleuca quinquenervia</i> open forest, woodland and shrubland. Lowlands of the very wet and wet rainfall zone, on poorly drained peaty humic gley soils where the water table is near or above the ground for most of the year. Palustrine. (BVG1M: 22a).</p> <p>7.3.5b: Mixed shrubland-sedgeland complex with <i>Melaleuca quinquenervia</i>. Perennially inundated areas on peat soils. Palustrine. (BVG1M: 22a).</p> <p>7.3.5c: <i>Melaleuca cajuputi</i> subsp. <i>platyphylla</i> open forest to woodland. Perennially inundated areas on peat soils. Palustrine. (BVG1M: 22b).</p> <p>7.3.5d: <i>Melaleuca quinquenervia</i> and <i>M. viridiflora</i> open woodland with a dense grassy ground layer, usually dominated by <i>Ischaemum australe</i> and <i>Isachne globosa</i>. Semi-permanent swamps of coastal lowlands with fibrous peat soils. Palustrine. (BVG1M: 22a).</p> <p>7.3.5e: <i>Melaleuca quinquenervia</i> and <i>Lophostemon suaveolens</i> open shrubland with a ground layer of by <i>Ischaemum australe</i> var. <i>arundinaceum</i>. Lowland swamp. Palustrine. (BVG1M: 22a).</p> <p>7.3.5f: <i>Melaleuca viridiflora</i>, <i>M. quinquenervia</i>, <i>Banksia robur</i> and <i>B. spinulosa</i> low open woodland with a ground layer of sedges including <i>Machaerina rubiginosa</i>, <i>Fimbristylis nutans</i> and the grass <i>Ischaemum australe</i>. Groundwater seepage zones on swamp fringes. Palustrine. (BVG1M: 22a).</p> <p>7.3.5g: <i>Melaleuca quinquenervia</i> open forest, woodland and shrubland. Swamps within basalt landscapes. Palustrine. (BVG1M: 22a).</p>
<b>Short description:</b>	<i>Melaleuca quinquenervia</i> and/or <i>Melaleuca cajuputi</i> subsp. <i>platyphylla</i> closed forest to shrubland on poorly drained alluvial plains
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A125, A33, A83, A87, A92, A190, B33; Kemp and Morgan (1999), 19; Kemp et al. (1999), 17; Tracey and Webb (1975), 15a
<b>Subregions:</b>	2, 3, 9, (1), (8), (7), (6), (4)

<b>Protected areas:</b>	Girramay NP, Eubenangee Swamp NP, Russell River NP, Ella Bay NP, Hull River NP, Gulngay NP, Daintree NP (CYPAL), Hinchinbrook Island NP, Jalum CP, Mount Mackay NP, Maria Creek NP, Džilgarin CP, Girringun NP, Moresby Range NP, Kuranda NP, Malbon Thompson FR, Tully Gorge NP, Halifax Bay Wetlands NP, Paluma Range NP, Kuranda West FR, Carello Palm Swamp CP, Koombooloomba NP, Djiru NP, Tully Falls NP, Moresby Range RR, Ngalba-bulal NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	7.3.5: This regional ecosystem plays a critical role in the hydrological regime of the coastal plain.
<b>Comments:</b>	<p>7.3.5: Small dense stands of <i>Melaleuca cajuputi</i> subsp. <i>platyphylla</i> (a species which is more common in Cape York) occur in the coastal north of the bioregion (as far south as Trinity Inlet). Pre-clearing mapping has revealed that <i>Melaleuca cajuputi</i> subsp. <i>platyphylla</i> stands in the Wet Tropics have always been rare. External and upstream hydrological changes have affected this ecosystem, leading to more concentrated flood flows in streams with consequent bank erosion and channel siltation. Portions of remnant patches of this regional ecosystem continue to be illegally cleared, particularly within agricultural areas. Disturbance often results in invasion by the introduced <i>Urochloa mutica</i> (para grass), <i>Annona glabra</i> (pond apple), and <i>Eichhornia crassipes</i> (water hyacinth).</p> <p>7.3.5a: Scattered across the coastal lowlands, predominantly the Innisfail and Tully subregions.</p> <p>7.3.5b: Scattered across the central coastal lowlands, predominantly the Innisfail and Tully subregions.</p> <p>7.3.5c: Currently known only from two areas, one being adjacent to Trinity Inlet, and the other immediately south of the Daintree River.</p> <p>7.3.5d: Scattered across the central coastal lowlands, predominantly the Innisfail and Tully subregions.</p> <p>7.3.5e: Mapped only in Eubenangee Swamp near Babinda.</p> <p>7.3.5f: Restricted to one small occurrence near Julatten.</p> <p>7.3.5g: Only one small occurrence only, near Tully Falls.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 24000 ha; Remnant 2021 11000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review

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## Regional ecosystem 7.3.6

**Description:** Melaleuca dealbata (cloudy tea tree) +/- Melaleuca leucadendra (weeping tea tree) open forest. Poorly drained alluvial plains. Palustrine. (BVG1M: 22b).

Vegetation communities in this regional ecosystem include:

7.3.6a: Melaleuca dealbata +/- M. leucadendra open forest to woodland. Includes two areas on the north eastern edge of Wharps Holding that are young dense recruiting stands of Melaleuca dealbata which have taken over naturally open areas. The reason for this recruitment is unclear. Alluvial plains and creek levees. Palustrine. (BVG1M: 22b).

7.3.6b: Melaleuca dealbata open forest. Swampy backdune situations on Orpheus Island. Palustrine. (BVG1M: 22b).

<b>Short description:</b>	Melaleuca dealbata +/- Melaleuca leucadendra open forest on poorly drained alluvial plains
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A105, A237; Kemp and Morgan (1999), 48; Kemp et al. (1999), 19; Tracey and Webb (1975), 18 (in part)
<b>Subregions:</b>	1, (3.2), (2), (9), (3), (5)
<b>Protected areas:</b>	Halifax Bay Wetlands NP, Gulngay NP, Girramay NP, Orpheus Island NP, Girringun NP
<b>Extent in reserves:</b>	Low
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	7.3.6: Potential habitat for NCA listed species: Cyperus cephalotes.
<b>Comments:</b>	7.3.6: Alteration to drainage, ponded pasture development, weed invasions and pigs are the major threatening processes. 7.3.6a: Scattered across the full extent of the coastal lowlands of the Wet Tropics. 7.3.6b: Orpheus Island.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 2000 ha; Remnant 2021 700 ha
<b>VM class:</b>	Endangered
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.3.7

**Description:** Eucalyptus pellita (red stringybark) and Corymbia intermedia (pink bloodwood) open forest to woodland (or vine forest with emergent E. pellita and C. intermedia). Poorly drained alluvial plains. Contains Palustrine. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

7.3.7a: Eucalyptus pellita and Corymbia intermedia open forest and woodland. Poorly drained alluvium, including seasonal swamps. Contains Palustrine. (BVG1M: 9e).

7.3.7b: Eucalyptus pellita and Corymbia intermedia open forest and woodland, with a very well-developed vine forest understorey. Poorly drained alluvium, including seasonal swamps. Contains Palustrine. (BVG1M: 9e).

7.3.7c: Corymbia intermedia, Eucalyptus pellita, Lophostemon suaveolens and Melaleuca dealbata open forest and woodland. Poorly drained alluvium. Contains Palustrine. (BVG1M: 9e).

**Short description:** Eucalyptus pellita and Corymbia intermedia open forest to woodland (or vine forest with emergent E. pellita and C. intermedia) on poorly drained alluvial plains

**Supplementary descriptions:** Stanton and Stanton (2005), A80, A80v, A119; Kemp and Morgan (1999), 25; Tracey and Webb (1975), 19

**Subregions:** 3, 2, 9, (8), (7)

**Protected areas:** Maria Creek NP, Mount Mackay NP, Hull River NP, Djiru NP, Daintree NP (CYPAL), Gulngay NP, Girramay NP, Kuranda NP, Daintree NP

**Extent in reserves:** Medium

**Wetland:** Contains Palustrine

**Special values:** 7.3.7: Potential habitat for NCA listed species: Hedyotis novoguineensis.

**Comments:** 7.3.7: This regional ecosystem has been narrowed in definition to represent the Eucalyptus pellita dominated component of the formerly described ecosystem. Very little remains of this regional ecosystem, with only approximately half of the remaining in protected tenures.

7.3.7a: Coastal areas from Cardwell to Cape Tribulation.

7.3.7b: Coastal areas from Cardwell to Cape Tribulation. Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

7.3.7c: Eastern parts of the Tully-Murray floodplain.

**Estimated extent:**<sup>1</sup> Pre-clearing 9000 ha; Remnant 2021 1000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.8

**Description:** *Melaleuca viridiflora* (broad leaf tea tree) +/- *Eucalyptus* spp. +/- *Lophostemon suaveolens* (swamp mahogany) open forest to open woodland. Humic gleyed texture contrast soils with impeded drainage, on alluvial plains. Contains Palustrine. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

7.3.8a: *Melaleuca viridiflora* open forest to open woodland. Includes areas of natural invasion onto former grasslands. Alluvial plains. Contains Palustrine. (BVG1M: 21a).

7.3.8b: *Melaleuca viridiflora* open forest to open woodland with eucalypt emergents (or sparse eucalypt overstorey) of species such as *Corymbia clarksoniana*, *Eucalyptus platyphylla*, *Lophostemon suaveolens* and *E. drepanophylla*. Poorly drained alluvium, mostly on the coastal plains. Contains Palustrine. (BVG1M: 21a).

7.3.8c: *Melaleuca viridiflora*, and *Lophostemon suaveolens* open forest to woodland. Poorly drained soils of coastal lowlands. Contains Palustrine. (BVG1M: 21a).

7.3.8d: *Melaleuca viridiflora*, *Lophostemon suaveolens* and *Allocasuarina littoralis* open shrubland. Poorly drained soils of coastal lowlands. Contains Palustrine. (BVG1M: 21a).

<b>Short description:</b>	<i>Melaleuca viridiflora</i> +/- <i>Eucalyptus</i> spp. +/- <i>Lophostemon suaveolens</i> open forest to open woodland on poorly drained alluvial plains
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A118, A41, A78, A93; Kemp and Morgan (1999), 30, 31, 32; Kemp et al. (1999), 23, 24, 31, 32; Tracey and Webb (1975), 20
<b>Subregions:</b>	1, 2, (8), (3), (6), (9), (5), (3.2), (4), (7), (11.1)
<b>Protected areas:</b>	Girringun NP, Paluma Range NP, Girramay NP, Hinchinbrook Island NP, Kuranda West FR, Macalister Range NP, Halifax Bay Wetlands NP, Mount Mackay NP, Koombooloomba South FR, Hull River NP, Djiru NP, Daintree NP (CYPAL), Kuranda NP, Gulngay NP, Maria Creek NP, Russell River NP, Ngalba-bulal NP (CYPAL), Tam O'Shanter FR, Tully Gorge NP, Mowbray NP
<b>Extent in reserves:</b>	Medium
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.3.8: Threatened plant species include: <i>Calochilus psednus</i> , <i>Corunastylis tecta</i> , <i>Myrmecodia beccarii</i> , <i>Hypochrysops apollo apollo</i> , <i>Eulophia bicallosa</i> and <i>Pachystoma pubescens</i> . There are many poorly known ground layer species, particularly in southern, drier areas. The vast majority of species occur in the very diverse ground layer, which may in places exceed 90 species in a 50x10 m plot.
<b>Comments:</b>	<p>7.3.8: The enormous variation displayed by this regional ecosystem across the bioregion suggests that it could be further divided into several regional ecosystems given further examination of soil, drainage and ground layer species differences. The greatest threat to this ecosystem now lies in gradual fragmentation (and resulting weed invasion) via clearing of fence, road and housing infrastructure, and the introduction of cattle grazing, on hobby farms, particularly in southern areas. In some areas many weeds occur in the ground layer after disturbance. These include <i>Senna occidentalis</i> (coffee senna), <i>Cassia obtusifolia</i> (sickle pod), <i>Clitoria laurifolia</i>, <i>Chrysopogon aciculatus</i> (Mackie's pest), <i>Mimosa pudica</i> (common sensitive plant), <i>Sida cordifolia</i> (flannel weed), <i>Stachytarpheta jamaicensis</i> (snakeweed) and <i>Hyparrhenia rufa</i>. Inappropriate fire regimes result in the conversion of the diverse ground layer to a simple grass layer, and the loss of life forms such as ground orchids. The exotic ant <i>Pheidole megacephala</i> is displacing the native ant <i>Phildris cordatus</i> from the ant plant <i>Myrmecodia beccarii</i>. This introduced ant does not tend the larvae of <i>Hypochrysops apollo</i> (the apollo jewel butterfly) or pollinate the ant plant.</p> <p>7.3.8a: Widespread throughout the bioregion where most common on the coastal floodplains, but also found in upland areas.</p> <p>7.3.8b: Widespread throughout the bioregion where most common on the coastal floodplains, but also found in upland areas.</p> <p>7.3.8d: Formerly scattered across the Tully-Murray floodplain, now reduced to one small area in the Kennedy Valley.</p>
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 39000 ha; Remnant 2021 15000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review



## Regional ecosystem 7.3.9

**Description:** *Corymbia tessellaris* (Moreton Bay ash), *Acacia* spp. (wattle), *Melaleuca* spp. (paperbark) open forest. Poorly drained alluvial plains. May include areas with some mixing with marine sediments and dune sands. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

7.3.9a: *Melaleuca dealbata*, *Lophostemon suaveolens*, *Corymbia tessellaris*, *Acacia mangium* +/- *Livistona drudei* open forest. Coastal flats and broad drainage lines. May include areas with some mixing with marine sediments and dune sands. Not a Wetland. (BVG1M: 9e).

7.3.9b: *Corymbia tessellaris*, *Acacia crassicarpa*, *Melaleuca leucadendra*, *M. viridiflora* woodland to open forest. Coastal flats and broad drainage lines. May include areas with some mixing with marine sediments and dune sands. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia tessellaris*, *Acacia* spp., *Melaleuca* spp. open forest on poorly drained alluvial plains (some soils with marine plain and dune influence)

**Supplementary descriptions:** Stanton and Stanton (2005), A149, A151; Kemp et al. (1999), 9, 10, 19; Tracey and Webb (1975), 19

**Subregions:** 1, (9), (2)

**Protected areas:** Halifax Bay Wetlands NP, Hinchinbrook Island NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.9: Formerly extensive, particularly on the Herbert River floodplain. Very little remains, with less than half of this in protected tenures. Scattered across the full extent of the coastal lowlands of the Wet Tropics.

7.3.9a: Scattered across the lowlands of the Wet Tropics, especially common in eastern parts of the Herbert River floodplain adjacent to marine and dunal systems.

7.3.9b: Herbert River floodplain.

**Estimated extent:**<sup>1</sup> Pre-clearing 11000 ha; Remnant 2021 1000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.10

**Description:** Simple-complex mesophyll to notophyll vine forest. Moderately to poorly-drained alluvial plains of moderate fertility. Contains Palustrine. (BVG1M: 1a).

Vegetation communities in this regional ecosystem include:

7.3.10a: Mesophyll vine forest. Moderately to poorly-drained alluvial plains, of moderate fertility. Lowlands of the very wet and wet zone. Not a Wetland. (BVG1M: 1a).

7.3.10b: Mesophyll vine forest recovering from disturbance, with *Acacia* spp. canopy or emergents. Moderately to poorly-drained alluvial plains, of moderate fertility. Lowlands of the very wet and wet zone. Not a Wetland. (BVG1M: 5d).

7.3.10c: Mesophyll vine forest with scattered *Archontophoenix alexandrae* (feather palm) in the sub-canopy. Seasonally inundated lowland alluvial plains. Palustrine. (BVG1M: 4a).

7.3.10d: Open areas in vine forests dominated by sprawling vines, with emergent vine-draped trees or clumps of trees. Vines commonly include *Decalobanthus peltatus*. Alluvial plains. Not a Wetland. (BVG1M: 5d).

7.3.10e: Simple notophyll vine forest with *Blepharocarya involucrigera*, *Acacia celsa*, *Flindersia bourjotiana*, *Syzygium angophoroides*, *Dillenia alata*, *Grevillea baileyana*, *Syzygium kuranda*, *Calophyllum sil*, *Backhousia hughesii* and *Acronychia acronychioides*. Swampy alluvial plains. Palustrine. (BVG1M: 4a).

7.3.10f: Simple Notophyll vine forest with *Syzygium angophoroides*. Swampy alluvial plains. Palustrine. (BVG1M: 4a).

7.3.10g: Simple notophyll vine forest dominated by *Blepharocarya involucrigera*. Alluvial plains. Not a Wetland. (BVG1M: 4a).

**Short description:** Simple-complex mesophyll to notophyll vine forest on moderate to poorly-drained alluvial plains of moderate fertility

<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A2a, A2a(a), A2a(b), A2a(c), A72, A66, A109, A81, A52; Kemp et al. (1999), 48 (part); Kemp and Morgan (1999), 49 (part); Tracey and Webb (1975), 2a (in part)
<b>Subregions:</b>	3, 2, 9, 7, (8), (1), (5), (6), (4)
<b>Protected areas:</b>	Daintree NP (CYPAL), Tully Gorge NP, Hinchinbrook Island NP, Wooroonooran NP, Ella Bay NP, Djiru NP, Japoon NP, Mount Mackay NP, Russell River NP, Girringun NP, Girramay NP, Kuranda NP, Hull River NP, Eubenangee Swamp NP, Ngalba-bulal NP (CYPAL), Gulngay NP, Moresby Range NP, Malbon Thompson FR, Djilgarin CP, Paluma Range NP, Danbulla NP, Walter Hill Range CP, Maria Creek NP, Basilisk Range NP, Mount Lewis NP, Warrina CP, Macalister Range NP, Grey Peaks NP, Daintree NP, Kuranda West FR, Brook Islands NP, Kurrimine Beach NP, Little Mulgrave NP, Orpheus Island NP, Gadgarra NP, Carello Palm Swamp CP, Mowbray NP, Moresby Range RR, Kirrama NP, Tam O'Shanter FR, Kamerunga CP, Mowbray CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.3.10: Small areas on the very wet lowlands, especially between the Daintree River and Cape Tribulation, harbour plant species which are extremely restricted and uncommon. Many areas of this ecosystem are considered refugial in nature and are local centres of endemism. Many representatives of primitive families of flowering plants are present, including the monotypic family Idiospermaceae. The ecosystem is the habitat for many threatened plant species.
<b>Comments:</b>	<p>7.3.10: This is the dominant rainforest type on alluvial plains - it occurs on shallower, less fertile soils than 7.3.17 (Stanton and Stanton (2005) A1a), and it is widespread. It generally receives higher rainfall (or more seasonally-even rainfall) than 7.3.23 (Stanton and Stanton (2005) A1c). Includes levees, plains and colluvials (high rainfall means there is little difference in floristics across these soils). It varies from being very species-diverse to quite simple. This regional ecosystem has been extensively and selectively cleared for agricultural purposes and remaining areas are highly fragmented and altered in structure and species composition.</p> <p>7.3.10a: Widespread across coastal parts of the bioregion.</p> <p>7.3.10b: Widespread across coastal parts of the bioregion.</p> <p>7.3.10c: Widespread across coastal parts of the bioregion.</p> <p>7.3.10d: Presumed to originate either from cyclone damaged rainforests, or areas of rainforest that have been previously cleared prior to the aerial photograph and land survey records (i.e. possibly of indigenous origin).</p> <p>7.3.10e: Coastal lowlands north of Innisfail.</p> <p>7.3.10f: Scattered along far eastern parts of the Wet Tropics coastal plain.</p> <p>7.3.10g: Sites subject to episodic disturbance such as a seral stage of recovery from a single event or period of disturbance.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 60000 ha; Remnant 2021 14000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Less than 10% remains unaffected by severe degradation (logging, fragmentation, feral animal disturbance and weed invasion).

## Regional ecosystem 7.3.11

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Mesophyll rainforest with *Eucalyptus pellita*, *Corymbia intermedia*, *C. tessellaris*, *Acacia celsa*, *A. cincinnata*, *A. mangium* and *A. flavescens* emergents and co dominants. Occurs on very wet and wet lowlands and foothills on well drained alluvia derived from most parent materials other than basalts. Not a Wetland. (BVG1M: 1a).

**Short description:** Mesophyll vine forest with red stringy bark (*Eucalyptus pellita*) emergents on very wet to wet, well drained lowland alluvial soils

**Supplementary descriptions:** Stanton and Stanton (in prep), A13a, A16b; Tracey and Webb (1975), 13a

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 7.3.11: This regional ecosystem is derived from former sclerophyll forests, largely with a common history of recent fire exclusion for a period long enough for a vine forest understorey and sub canopy to develop.

**Comments:** 7.3.11: The sclerophyll species in the canopy are being phased out by the exclusion of fire, and a rainforest canopy is taking its place. This is a rainforest regional ecosystem of very recent development (mostly within the last 30-50 years).

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.12

**Description:** Mixed eucalypt open forest to woodland, dominated by *Eucalyptus tereticornis* (forest red gum) and *Corymbia tessellaris* (Moreton Bay ash) +/- *Melaleuca dealbata* (cloudy tea tree), (or vine forest with these species as emergents). Alluvial plains of lowlands. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

7.3.12a: *Eucalyptus tereticornis*, *Corymbia tessellaris*, *E. pellita*, *C. intermedia*, *Melaleuca dealbata* and *Lophostemon suaveolens* woodland to open forest, often with a secondary tree layer of *Acacia mangium* and *A. crassicarpa*. Alluvial plains of lowlands. Not a Wetland. (BVG1M: 9e).

7.3.12b: *Eucalyptus tereticornis*, *Corymbia tessellaris*, *E. pellita*, *C. intermedia*, *Melaleuca dealbata* and *Lophostemon suaveolens* woodland to open forest, often with a secondary tree layer of *Acacia mangium* and *A. crassicarpa*, and with a very well-developed vine forest understorey. Alluvial plains of lowlands. Not a Wetland. (BVG1M: 9e).

7.3.12c: *Eucalyptus tereticornis* open woodland to sparse woodland over a prominent secondary tree layer of *Melaleuca quinquenervia* and/or *M. viridiflora*. Alluvial plains of lowlands. Not a Wetland. (BVG1M: 9e).

**Short description:** Mixed eucalypt open forest to woodland dominated by *Eucalyptus tereticornis* and *Corymbia tessellaris* +/- *Melaleuca dealbata* (or vine forest with these species as emergents). Lowland alluvial plains

**Supplementary descriptions:** Stanton and Stanton (2005), A16g, A16gv, (also Qld Herbarium and WTMA (2005) A16q); Kemp and Morgan (1999), 23, 27, 28; Tracey and Webb (1975), 16g, 19

**Subregions:** 2, 9, 3, 1, (7), (6), (8)

**Protected areas:** Hinchinbrook Island NP, Girramay NP, Gulngay NP, Girringun NP, Hull River NP, Paluma Range NP, Bloomfield River CP, Grey Peaks NP, Smithfield CP, Daintree NP (CYPAL), Earl Hill CP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 7.3.12: Potential habitat for NCA listed species: *Phlegmariurus phlegmarioides*.

**Comments:** 7.3.12: More mixed in species (and often with *Melaleuca dealbata*) and of lower stature than 7.3.40. This type has been very heavily cleared for sugar cane growing due to its occurrence on the better alluvial soils. The vegetation community 7.3.12c was once extensive in the Tully-Murray floodplain and Kennedy Valley but is now practically extinct. Scattered across the full extent of the Wet Tropics lowlands. This ecosystem has a long history of European exploitation due to its grazing and timber values, and is therefore often structurally altered, and weeds are usually common. Many areas have a very well-developed rainforest secondary tree layer, and in some places the transition to rainforest is very well advanced, due to a complete cessation of burning.  
7.3.12c: Once very common on the Tully-Murray floodplain where it is now practically extinct.

**Estimated extent:**<sup>1</sup> Pre-clearing 26000 ha; Remnant 2021 4000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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### Regional ecosystem 7.3.13

**Description:** *Corymbia nesophila* (Melville Island bloodwood) open forest to woodland. Red sandy and gravelly alluvial soils. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* open forest to woodland on alluvium

**Supplementary descriptions:** Stanton and Stanton (2005), A181; Tracey and Webb (1975), 16k

**Subregions:** 9

**Protected areas:** Ngalba-bulal NP (CYPAL)

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 7.3.13: This regional ecosystem embraces the southern limit of a number of plant species that are widespread and common in the Cape York Peninsula bioregion.

**Comments:** 7.3.13: This regional ecosystem has strong affinities with the Cape York Peninsula bioregion. It occurs mostly on lands with freehold tenure and which is being cleared. Ayton-China Camp area. China Camp to the Wyalla Plain near the Bloomfield River. Some areas are being threatened by rainforest invasion due to burning which is too infrequent.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 700 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by fragmentation and being invaded by *Acacia polystachya* in places.

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## Regional ecosystem 7.3.14

**Description:** *Eucalyptus leptophleba* (Molloy red box) +/- *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Melaleuca dealbata* (cloudy tea tree) woodland to open forest. Alluvium, in low rainfall areas of the west and north. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

7.3.14a: *Eucalyptus leptophleba*, *Corymbia clarksoniana*, +/- *C. tessellaris*, +/- *C. dallachiana*, +/- *E. platyphylla*, +/- *E. tereticornis*, +/- *Erythrophleum chlorostachys*, +/- *Lophostemon grandiflorus* woodland, with a secondary tree layer including *Melaleuca viridiflora*, *M. monantha*, *Allocasuarina littoralis*, *A. luehmannii* and *Livistona muelleri*. Includes small areas of *Eucalyptus cullenii*, *Corymbia nesophila*, *Eucalyptus crebra*, *Eucalyptus platyphylla* and *Melaleuca nervosa* woodland. Alluvium, in low rainfall areas of the west and north. Not a Wetland. (BVG1M: 9b).

7.3.14b: *Melaleuca dealbata*, *Corymbia tessellaris*, *C. intermedia*, *C. clarksoniana*, *Eucalyptus platyphylla*, *E. leptophleba* woodland. Alluvial plains. Not a Wetland. (BVG1M: 9e).

7.3.14c: [RE not in use]<sup>2</sup>: This vegetation community was never mapped. *Eucalyptus* sp. (ironbark), *Corymbia hylandii*, *C. dallachiana* grassy woodland and open woodland, or *C. hylandii*, *C. dallachiana*, *C. abergiana*, *Petalostigma pubescens*, *Melaleuca stenostachya*, *Callitris intratropica*, *Melaleuca viridiflora* low shrubland and woodland complex. Alluvium, in the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

**Short description:** *Eucalyptus leptophleba* +/- *Corymbia clarksoniana* +/- *Melaleuca dealbata* woodland to open forest on alluvium in low rainfall areas of the west and north

**Supplementary descriptions:** Stanton and Stanton (2005), A16h, A16j, A128, A271, A273, A108; Tracey and Webb (1975), 16h, 16j

**Subregions:** 8, 3.2, 9, 3.5, (9.3)

**Protected areas:** Ngalba-bulal NP (CYPAL), Kuranda NP, Dinden NP, Dinden West FR, Kuranda West FR, Mount Lewis NP, Daintree NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.14: Northern and western parts of the bioregion north of Cairns.

**Estimated extent:**<sup>1</sup> Pre-clearing 3000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.15

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. *Eucalyptus tetradonta*, *E. brassiana*, *Corymbia clarksoniana*, *C. tessellaris*, *Melaleuca acacioides* woodland, over *Petalostigma pubescens* and *Xanthorrhoea johnsonii*. An understorey of stunted *Acacia flavescens*, *Planchonia careya*, *Persoonia falcata*. Occurs on dry lowlands and foothills on alluvia and colluvia (laterite). Not a Wetland. (BVG1M: 14a).

**Short description:** Darwin stringy bark (*Eucalyptus tetradonta*) woodland on dry well drained lowland alluvial soils

**Supplementary descriptions:** Neldner and Clarkson (1995), 94; Stanton and Stanton (2005), A16l; Tracey and Webb (1975), 16l

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.15: A rare regional ecosystem in the Wet Tropics being confined to a dry area between Trevethan Creek and Mount Amos.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.16

**Description:** *Eucalyptus platyphylla* (poplar gum) woodland to open forest, on alluvial plains. Gently sloping to flat, moderately to poorly drained alluvial lowlands, foot slopes and piedmont fans. Contains Palustrine. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

7.3.16a: *Eucalyptus platyphylla*, *Corymbia clarksoniana*, *Lophostemon suaveolens* woodland, or *E. platyphylla*, *L. suaveolens*, *C. tessellaris* open forest to woodland. Lowland alluvium of the moist zone. Not a Wetland. (BVG1M: 9b).

7.3.16b: *Eucalyptus platyphylla*, *Lophostemon suaveolens*, *Corymbia clarksoniana*, *C. tessellaris* open forest with a prominent shrub layer of *Acacia* spp., *Planchonia careya*, +/- vine forest elements. Prior streams or areas of better-drained soils on lowland alluvium. Not a Wetland. (BVG1M: 9b).

7.3.16c: *Eucalyptus platyphylla* grassy woodland to open woodland. Alluvial plains. Not a Wetland. (BVG1M: 9b).

7.3.16d: *Lophostemon suaveolens*, *Eucalyptus platyphylla*, *Corymbia tessellaris*, *Melaleuca viridiflora*, *M. dealbata* woodland and open forest, with *Imperata cylindrica* and *Crinum* sp. Swampy drainage lines and swamp fringes in upland situations. Palustrine. (BVG1M: 9e).

<b>Short description:</b>	<i>Eucalyptus platyphylla</i> woodland to open forest on alluvial plains
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A16p, A16ps, A42; Kemp and Morgan (1999), 33; Kemp et al. (1999), 26, 27, 30 (part) 33; Tracey and Webb: 16p, 19
<b>Subregions:</b>	1, (8), (6), (5), (2), (9), (11.1), (9.4), (3.2), (9.3)
<b>Protected areas:</b>	Girringun NP, Kuranda NP, Paluma Range NP, Kuranda West FR, Koombooloomba South FR, Macalister Range NP, Mowbray NP, Annan River (Yuku Baja-Muliku) NP
<b>Extent in reserves:</b>	Medium
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.3.16: Potential habitat for NCA listed species: <i>Habenaria rumphii</i> , <i>Myrmecodia beccarii</i> .
<b>Comments:</b>	7.3.16: Widespread across the bioregion but most common in the Herbert subregion. Mostly in very poor condition with severe infestations of <i>Chrysopogon aciculatus</i> (Mackie's pest), <i>Mimosa pudica</i> (sensitive weed) and other weeds, particularly in areas with a history of cattle grazing (including State Forests). Severely affected by soil compaction in the dry season. Areas south of Crystal Creek are generally in good condition and should be considered for addition to the protected area estate. 7.3.16b: Closely allied to type A144 and A164.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 37000 ha; Remnant 2021 16000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review

## Regional ecosystem 7.3.17

**Description:** Complex mesophyll vine forest. Well-drained alluvium of high fertility. Not a Wetland. (BVG1M: 1a).

**Short description:** Complex mesophyll vine forest on well-drained alluvium of high fertility

**Supplementary descriptions:** Stanton and Stanton (2005), A1a; Kemp and Morgan (1999), 49; Tracey and Webb: 1a (in part)

**Subregions:** 2, 9, 3, 7, (4)

**Protected areas:** Tully Gorge NP, Wooroonooran NP, Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL), Little Mulgrave NP, Malbon Thompson FR, Japoon NP, Russell River NP, Mount Mackay NP, Hull River NP, Palmerston Rocks NP, Daintree NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 7.3.17: There is a high population density of Cassowaries (*Casuarius casuarius johnsonii* listed as "Endangered" under the Queensland Nature Conservation Act 1992) in this RE in the Jarrah Ck area. The Jarrah Creek valley is a very large intact example of this ecosystem, and is worthy of continued preservation.

**Comments:** 7.3.17: This rainforest type occurs on deeper and/or more fertile soils than 7.3.10 (Stanton and Stanton (2005) A2a). It generally receives higher rainfall (or more seasonally-even rainfall) than 7.3.23 (Stanton and Stanton (2005) A1c). Includes levees, plains and colluvials (high rainfall means there is little difference in floristics across these soils). It is usually very species diverse and of complex structure. Predominantly lowlands, north of Cardwell. Lowland parts of this regional ecosystem have been extensively and selectively cleared for agricultural purposes and what does remain on the lowlands is fragmented.

**Estimated extent:**<sup>1</sup> Pre-clearing 26000 ha; Remnant 2021 4000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.18

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Mesophyll rainforest with emergent *Corymbia intermedia*, *Syncarpia glomulifera*, *Acacia polystachya* and *A. mangium*. Rainforest canopy species typically include *Alphitonia petriei*, *Blepharocarya involucrigera*, *Alstonia muelleriana*, *Litsea leefeana*. Occurs on moderately sloping piedmont fans of well drained sandy clay loam and sandy light clay, often with a large gravel component. Lacustrine. (BVG1M: 1a).

**Short description:** Mesophyll vine forest with pink bloodwood (*Corymbia intermedia*) emergents on wet to very wet well drained piedmont fans

**Supplementary descriptions:** Kemp and Morgan (in prep), 41; Stanton and Stanton (in prep), A13e; Tracey and Webb: 13a

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Lacustrine

**Special values:** 7.3.18: Habitat for the endangered mahogany glider (*Petaurus gracilis*).

**Comments:** 7.3.18: This is a transitional rainforest regional ecosystem of very recent development (mostly within the last 30-50 years).

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.19

**Description:** *Corymbia intermedia* (pink bloodwood) or *C. tessellaris* (Moreton Bay ash) +/- *Eucalyptus tereticornis* (forest red gum) open forest (or vine forest with these species as emergents). Well-drained alluvium. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

7.3.19a: *Corymbia intermedia*, *Eucalyptus tereticornis*, *E. drepanophylla*, *Allocasuarina torulosa*, *A. littoralis*, *Lophostemon suaveolens*, woodland with *Acacia cincinnata*, *A. flavescens*, *Banksia aquilonia* and *Xanthorrhoea johnsonii*. Well-drained alluvium. Not a Wetland. (BVG1M: 9e).

7.3.19b: *Corymbia tessellaris* and *C. intermedia* woodland and open forest. Well-drained alluvium. Not a Wetland. (BVG1M: 9e).

7.3.19c: *Corymbia tessellaris* and *C. intermedia* woodland and open forest with a very well-developed vine forest understorey. Well-drained alluvium. Not a Wetland. (BVG1M: 9e).

7.3.19d: *Corymbia intermedia* open forest. Well-drained alluvium. Not a Wetland. (BVG1M: 9e).

7.3.19e: *Corymbia intermedia* open forest with a very well-developed vine forest understorey. Well-drained alluvium. Not a Wetland. (BVG1M: 9e).

7.3.19f: *Eucalyptus moluccana* woodland and open forest. Alluvium. Not a Wetland. (BVG1M: 13d).

7.3.19g: *Eucalyptus tereticornis*, *E. drepanophylla*, *E. portuensis*, *Corymbia intermedia*, *C. tessellaris*, woodland and open forest with *Allocasuarina torulosa* and *Angophora floribunda*. Uplands and highlands on alluvium, of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

7.3.19h: *Corymbia tessellaris* +/- *Eucalyptus tereticornis*, *C. intermedia*, *E. drepanophylla*, *E. platyphylla* and *Lophostemon suaveolens* layered grassy woodland with *Acacia celsa* and *Cycas media*. Lowlands on alluvium, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9e).

7.3.19i: *Corymbia intermedia*, *Allocasuarina torulosa* and *Lophostemon suaveolens* woodland and open forest. Uplands on alluvium, of the moist rainfall zone. Not a Wetland. (BVG1M: 9e).

7.3.19j: *Themeda triandra* and *Imperata cylindrica* grassland. Alluvium, Palm Islands. Not a Wetland. (BVG1M: 32 a).

<b>Short description:</b>	<i>Corymbia intermedia</i> or <i>C. tessellaris</i> +/- <i>Eucalyptus tereticornis</i> open forest (or vine forest with these species as emergents) on well-drained alluvium
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A16e in part (Qld Herbarium and WTMA (2005) A250a), A73, A73v, A74, A74v, A16o, A14d, A239, A16a, A134; Kemp and Morgan (1999), 37; Kemp et al. (1999), 39; Tracey and Webb (1975), 19
<b>Subregions:</b>	1, 2, 6, 5, 9, (3), (4), (8), (7), (9.6)
<b>Protected areas:</b>	Hinchinbrook Island NP, Girringun NP, Paluma Range NP, Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Dinden West FR, Russell River NP, Djiru NP, Tully Gorge NP, Koombuloomba South FR, Hull River NP, Wooroonooran NP, Halifax Bay Wetlands NP, Moresby Range NP, Japoon NP, Dinden NP, Orpheus Island NP, Girramay NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.3.19: Potential habitat for NCA listed species: <i>Peristylus banfieldii</i> .
<b>Comments:</b>	7.3.19: Widespread across the bioregion. Introduced weed species, notably <i>Mesosphaerum suaveolens</i> and <i>*Passiflora suberosa</i> , <i>*P. pallida</i> , are common and may result from heavy grazing pressure. 7.3.19c: Well-developed vine forest understorey is probably a condition state caused by infrequent burning. 7.3.19e: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 6000 ha; Remnant 2021 4000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.3.20

**Description:** *Corymbia intermedia* (pink bloodwood) and *Syncarpia glomulifera* (turpentine), or *C. intermedia* and *Eucalyptus pellita* (red stringybark), or *Syncarpia glomulifera* and *Allocasuarina* spp. (sheoaks), or *E. cloeziana* (Gympie messmate), or *C. torelliana* (cadaghi) open forest (or vine forests with these species as emergents). Moderate to steep alluvial fans at the base of ranges. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.3.20a: *Eucalyptus pellita*, *Corymbia intermedia*, *C. tessellaris*, open forest often with *Acacia celsa*, *A. cincinnata*, *A. mangium* and *A. flavescens*. Includes small areas dominated by *A. crassicarpa*. Alluvial fans of the very wet and wet rainfall zones, of the lowlands and foothills. Not a Wetland. (BVG1M: 9d).

7.3.20b: *Eucalyptus pellita*, *Corymbia intermedia*, *C. tessellaris*, open forest often with *Acacia celsa*, *A. cincinnata*, *A. mangium* and *A. flavescens*, with a very well-developed vine forest understorey. Alluvial fans of the very wet and wet rainfall zones, of the lowlands and foothills. Not a Wetland. (BVG1M: 9d).

7.3.20c: *Syncarpia glomulifera*, *Corymbia intermedia*, *Eucalyptus pellita*, *E. tereticornis*, open forest often with *Acacia celsa* and *A. mangium*. Alluvial fans of the very wet and wet rainfall zones, of the lowlands and foothills. Not a Wetland. (BVG1M: 9d).

7.3.20d: *Corymbia intermedia*, *Syncarpia glomulifera*, *Lophostemon confertus* open forest with *Allocasuarina torulosa* and *Banksia aquilonia*. Alluvial fans of the wet to moist rainfall zone, of foothills and lowlands. Not a Wetland. (BVG1M: 9d).

7.3.20e: *Corymbia intermedia*, *Eucalyptus pellita*, *E. tereticornis*, *C. tessellaris*, *C. torelliana*, open forest, often with *Acacia celsa*, *A. mangium*, *Lophostemon suaveolens*, and *Syncarpia glomulifera*. Alluvial fans of the wet and moist rainfall zones, of the lowlands and foothills. Not a Wetland. (BVG1M: 9e).

7.3.20f: *Corymbia intermedia*, *Eucalyptus pellita*, *E. tereticornis*, *C. tessellaris*, *C. torelliana*, open forest with a very well-developed vine forest understorey, and often with *Acacia celsa*, *A. mangium*, *Lophostemon suaveolens*, and *Syncarpia glomulifera*. Alluvial fans of the wet and moist rainfall zones, of the lowlands and foothills. Not a Wetland. (BVG1M: 9e).

7.3.20g: Simple notophyll vine forest with *Corymbia torelliana*, *Eucalyptus tereticornis*, *C. intermedia*, *E. pellita*, *Acacia celsa*, *A. cincinnata* and *A. polystachya* emergents and co-dominants. Alluvial fans of the moist rainfall zone, of the foothills and lowlands. Not a Wetland. (BVG1M: 9d).

7.3.20h: *Acacia mangium* and *Lophostemon suaveolens* open forest with scattered emergent sclerophyll species including *Eucalyptus pellita*, *Corymbia tessellaris* and *C. intermedia*. Alluvial fans of the moist rainfall zone, of the foothills and lowlands. Not a Wetland. (BVG1M: 9e).

7.3.20i: *Syncarpia glomulifera*, *Allocasuarina torulosa* and/or *A. littoralis* open forest and woodland. Alluvial fans of the wet rainfall zone, of the foothills and lowlands. Not a Wetland. (BVG1M: 28e).

7.3.20j: *Syncarpia glomulifera*, *Allocasuarina torulosa* and/or *A. littoralis* open forest and woodland with a very well-developed vine forest understorey. Alluvial fans of the wet rainfall zone, of the foothills and lowlands. Not a Wetland. (BVG1M: 28e).

7.3.20k: *Eucalyptus cloeziana* open forest. Alluvial fans of foothills and lowlands. Not a Wetland. (BVG1M: 9d).

7.3.20l: *Syncarpia glomulifera*, *Corymbia intermedia*, *Allocasuarina littoralis* woodland, low woodland and open forest with *Banksia aquilonia*, *Acacia flavescens* and *Xanthorrhoea johnsonii*. Alluvial fans of the moist rainfall zone, of the foothills and lowlands. Not a Wetland. (BVG1M: 9d).

7.3.20m: *Acacia flavescens*, *Allocasuarina littoralis* and *A. torulosa* low shrubby open forest to woodland. Alluvial fans of the moist rainfall zone of the foothills and lowlands. Not a Wetland. (BVG1M: 28e).

<b>Short description:</b>	<i>Corymbia intermedia</i> and <i>Syncarpia glomulifera</i> , or <i>C. intermedia</i> and <i>Eucalyptus pellita</i> , or <i>S. glomulifera</i> and <i>Allocasuarina</i> spp., or <i>E. cloeziana</i> , or <i>C. torelliana</i> open forest (or vine forest with these emergents) on alluvial fans at the base of ranges
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A139, A13a, A13av, A13b, A13e, A13f, A16b, A16bv, A16f, A67, A67v, A142, A171; Kemp and Morgan (1999), 36, 37, 40; Kemp et al. (1999), 36, 37, 38; Tracey and Webb (1975), 13a, 13b, 13f, 16b, 16f
<b>Subregions:</b>	2, 1, 9, (6), (3), (8), (7), (5), (3.2)
<b>Protected areas:</b>	Girringun NP, Hinchinbrook Island NP, Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Tully Gorge NP, Hull River NP, Kuranda NP, Djiru NP, Mount Mackay NP, Girramay NP, Grey Peaks NP, Dinden NP, Dinden West FR, Kuranda West FR, Smithfield CP, Daintree NP, Tam O'Shanter FR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.3.20: Potential habitat for NCA listed species: <i>Calochilus psednus</i> , <i>Drosera adela</i> , <i>Scleromitron polycladum</i> .

**Comments:** 7.3.20: Widespread across the bioregion.  
7.3.20b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

**Estimated extent:**<sup>1</sup> Pre-clearing 11000 ha; Remnant 2021 6000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.21

**Description:** *Eucalyptus portuensis* (white mahogany) +/- *Corymbia intermedia* (pink bloodwood) open forest to woodland on alluvium. Alluvium on gently to moderately sloping lowland alluvial fans of well-drained soils. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.3.21a: *Eucalyptus portuensis*, *Corymbia intermedia* +/- *E. drepanophylla* +/- *E. platyphylla* +/- *E. tereticornis* +/- *C. tessellaris* +/- *Lophostemon suaveolens* +/- *Syncarpia glomulifera* open forest to woodland. May include small areas of *Acacia leptostachya* dominated communities. Alluvial fans of lowlands, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

7.3.21b: *Eucalyptus portuensis* +/- *E. drepanophylla* +/- *Corymbia intermedia* +/- *Lophostemon suaveolens* low to medium woodland, with *Melaleuca viridiflora*, *Acacia flavescens* and *Allocasuarina littoralis*. Alluvial fans of lowlands, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

7.3.21c: *Corymbia intermedia*, *Eucalyptus portuensis*, *E. drepanophylla* +/- *E. platyphylla* +/- *C. tessellaris* +/- *E. tereticornis* +/- *Syncarpia glomulifera* +/- *Lophostemon suaveolens* +/- *L. confertus* woodland to low woodland, with *Xanthorrhoea johnsonii* and *Cycas media*. Alluvial fans of lowlands, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

**Short description:** *Eucalyptus portuensis* +/- *Corymbia intermedia* open forest to woodland on alluvium on alluvial fans at the base of ranges

**Supplementary descriptions:** Stanton and Stanton (2005), A15b, A131, A16d, A16m in part (and Qld Herbarium and WTMA (2005) A16mb); Kemp and Morgan (1999), 39; Tracey and Webb (1975), 15b, 16d

**Subregions:** 2, 1, (5), (6), (8), (11.1), (7), (3), (9.4)

**Protected areas:** Girringun NP, Hinchinbrook Island NP, Paluma Range NP, Grey Peaks NP, Girramay NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.21: In this RE the *E. portuensis* tends to be of taller stature and the ecosystem is less monospecific than 7.3.48 (and occurs in eastern rather than western areas). Bases of ranges from Bluewater to Port Douglas.

**Estimated extent:**<sup>1</sup> Pre-clearing 6000 ha; Remnant 2021 4000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.22

<b>Description:</b>	[RE not in use] <sup>2</sup> : History of this RE is unknown. Mesophyll vine forest (gallery forest). Typical species include <i>Alstonia scholaris</i> , <i>Archontophoenix alexandrae</i> , <i>Argyrodendron peralatum</i> , <i>A. polyandrum</i> , <i>Beilschmiedia obtusifolia</i> , <i>Blepharocarya involucrigera</i> , <i>Brachychiton acerifolius</i> . Occurs on moist and dry lowlands on well drained alluvial riverine levees. Riverine. (BVG1M: 4b).
<b>Short description:</b>	Mesophyll riparian vine forest on moist well drained lowland alluvial levees
<b>Supplementary descriptions:</b>	Kemp and Morgan (in prep), 48 (in part), 49; Stanton and Stanton (in prep), A1a (in part), A1c, A2a (in part), A13b, A102, A109; Tracey and Webb (1975), 1c
<b>Subregions:</b>	
<b>Protected areas:</b>	
<b>Extent in reserves:</b>	
<b>Wetland:</b>	Riverine
<b>Special values:</b>	7.3.22: Associated with streams in moist to drier areas of the wet tropics and may provide important rainforest wildlife corridors and linkages within a matrix of open forest and woodland communities. The dense nature of the forest type is important for water quality.
<b>Comments:</b>	7.3.22: Wind and fire damage is increasing due to increased fragmentation of the forest and altered fire regimes associated with grazing land use management. The type is also being degraded by tin mining, river improvement and water extraction schemes.
<b>Estimated extent:<sup>1</sup></b>	
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 7.3.23

**Description:** Simple-complex semi-deciduous notophyll to mesophyll vine forest on lowland alluvium. Lowland alluvium, predominantly creek and river levees. Contains Riverine. (BVG1M: 4b).

Vegetation communities in this regional ecosystem include:

7.3.23a: Simple-complex semi-deciduous notophyll to mesophyll vine forest. Lowlands on alluvium, predominantly riverine levees, of the moist and dry rainfall zones. Riverine. (BVG1M: 4b).

7.3.23b: Semi-deciduous vine forest with *Nauclea orientalis*, *Cryptocarya hypospodia* and *Castanospermum australe*. Outwash plains of lowlands, of the wet rainfall zone. Not a Wetland. (BVG1M: 4b).

7.3.23c: Complex Notophyll vine forest with emergent *Argyrodendron polyandrum*, *Corymbia torelliana*, *Acacia celsa* and *A. mangium*. Canopy species include *Elaeocarpus grandis*, *Antidesma buniis*, *Grevillea baileyana*, *Flindersia pimenteliana* and *Alstonia muelleriana*. Upland alluvium - creek levee of Rifle Creek in the Rumula area. Riverine. (BVG1M: 4b).

7.3.23d: *Glochidion harveyanum*, *Melicope elleryana* open woodland to closed forest, with a ground-stratum dominated by *Imperata cylindrica* (former grassland which has been encroached by woody species). Moderately to well-drained alluvial plains. Riverine. (BVG1M: 32a).

<b>Short description:</b>	Simple-complex semi-deciduous notophyll to mesophyll vine forest on lowland alluvium, predominantly riverine levees
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A124, A1c, A211; Kemp et al. (1999) 48; Tracey and Webb (1975), 1c
<b>Subregions:</b>	1, 3, 8, 9, (2), (7), (5), (6), (3.2)
<b>Protected areas:</b>	Girringun NP, Kuranda NP, Wooroonooran NP, Kamerunga CP, Hinchinbrook Island NP, Little Mulgrave NP, Kuranda West FR, Paluma Range NP, Daintree NP (CYPAL), Malbon Thompson FR
<b>Extent in reserves:</b>	Medium
<b>Wetland:</b>	Contains Riverine
<b>Special values:</b>	7.3.23: Associated with watercourses, and provides important rainforest wildlife corridors and linkages within a matrix of open forest and woodland communities or in cleared landscapes. The regional ecosystem has important water quality, fire break and erosion prevention benefits.
<b>Comments:</b>	<p>7.3.23: This rainforest type occurs on deeper and/or more fertile soils than 7.3.10 (Stanton and Stanton (2005) A2a). It generally receives lower rainfall (or less seasonally-even rainfall) than 7.3.17 (Stanton and Stanton (2005) A1a). Predominantly the drier northern and southern extremes of the bioregion. In many areas this RE has been reduced to discontinuous strips along stream banks, and the RE is usually severely altered in structure and species composition. Fire damage is sometimes a problem along edges.</p> <p>7.3.23d: Invasive species such as <i>Spathodea campanulata</i>, <i>Psidium guajava</i> and <i>Psidium cattleianum</i> are often present. This is a transitional vegetation community from 7.3.32a which has developed recently, possibly due to cessation of burning.</p>
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 15000 ha; Remnant 2021 4000 ha
<b>VM class:</b>	Endangered
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.3.24

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. *Melaleuca dealbata*, *M. leucadendra* forest associated with riparian areas and relict levees of prior streams. Dominated by emergent *Melaleuca dealbata* (and sometimes *M. leucadendra* and *M. quinquenervia*) often with a rainforest sub canopy. Occurs on fertile moderately drained alluvial soils. Riverine. (BVG1M: 22a).

**Short description:** Red tea-tree (*Melaleuca dealbata*) riparian open forest on moist fertile moderately drained lowland alluvia

**Supplementary descriptions:** Kemp and Morgan (in prep), 48; Kemp et al. (in prep), 47

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Riverine

**Special values:** 7.3.24: Important wildlife corridors. Habitat for the endangered mahogany glider (*Petaurus gracilis*).

**Comments:** 7.3.24: Distinguished by the occurrence on streamlines close to the coast and by the complete dominance of *Melaleuca* species other than *M. quinquenervia*. Probably once very widespread over the central and lower Herbert River floodplain. Disturbed sites may be heavily infested with introduced climbers such as *Passiflora suberosa* and various members of the pea family.

**Estimated extent:**<sup>1</sup>

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.25

**Description:** Melaleuca leucadendra (weeping tea tree) +/- vine forest species, open forest to closed forest. Stream levees and prior streams on well-drained sandy clay loam alluvial soils. Riverine. (BVG1M: 22c).

Vegetation communities in this regional ecosystem include:

7.3.25a: Melaleuca leucadendra open forest and woodland. Stream levees and prior streams on well-drained sandy clay loam alluvial soils. Riverine. (BVG1M: 22c).

7.3.25b: Melaleuca leucadendra and Eucalyptus tereticornis, layered open forest, and closed forest with a vine forest understorey. Stream levees and prior streams on well-drained sandy clay loam alluvial soils. Riverine. (BVG1M: 22c).

7.3.25c: Closed forest of Tristaniopsis exiliflora and Xanthostemon chrysanthus. Stream banks, on well drained alluvium adjacent to Pleistocene sand dunes. Riverine. (BVG1M: 22c).

**Short description:** Melaleuca leucadendra +/- vine forest species open forest to closed forest on alluvium fringing streams

**Supplementary descriptions:** Stanton and Stanton (2005), A38, A50, M38, G38, D50; Kemp et al. (1999), 47; Kemp and Morgan (1999), 47; Tracey and Webb (1975), 18

**Subregions:** 1, 9, 2, 3, (8), (6), (7), (5), (4), (3.2), (9.3)

**Protected areas:** Daintree NP (CYPAL), Girringun NP, Hinchinbrook Island NP, Paluma Range NP, Gulngay NP, Wooroonooran NP, Girramay NP, Halifax Bay Wetlands NP, Russell River NP, Hull River NP, Ngalba-bulal NP (CYPAL), Tully Gorge NP, Little Mulgrave NP, Maria Creek NP, Macalister Range NP, Kuranda West FR, Kuranda NP, Annan River (Yuku Baja-Muliku) RR, Eubenangee Swamp NP, Dinden West FR, Japoon NP, Dinden NP, Moresby Range NP, Mount Windsor NP, Mount Mackay NP, Goold Island NP, Mowbray CP, Mowbray NP, Mount Whitfield CP, Carello Palm Swamp CP

**Extent in reserves:** High

**Wetland:** Riverine

**Special values:** 7.3.25: Important wildlife corridors in cleared landscapes.

**Comments:** 7.3.25: Subject to widespread weed invasion and clearing for agriculture. Distributed across the entire bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 8000 ha; Remnant 2021 5000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.26

**Description:** *Casuarina cunninghamiana* (river oak) woodland to open forest on alluvium fringing streams. Occurs on channel benches, levees and terraces on deep loamy sands or sandy clay loams (often with loose surface gravel). Riverine. (BVG1M: 16a).

Vegetation communities in this regional ecosystem include:

7.3.26a: *Casuarina cunninghamiana*, *Eucalyptus tereticornis*, *Lophostemon suaveolens*, *Melaleuca leucadendra*, *M. fluviatilis*, *Buckinghamia celsissima*, *Mallotus philippensis* woodland and forest with an understorey of *Melaleuca viminalis* and *Bursaria tenuifolia*. Fringing forests of larger streams. Riverine. (BVG1M: 16a).

7.3.26b: *Casuarina cunninghamiana* woodland and forest. Fringing forests of larger streams. Riverine. (BVG1M: 16a).

**Short description:** *Casuarina cunninghamiana* woodland to open forest on alluvium fringing streams

**Supplementary descriptions:** Stanton and Stanton (2005), A130, A163, G130, R130, M130, L130, W130, B130; Kemp et al. (1999), 43

**Subregions:** 1, 5, 6, 4, 9, 8, 9.4, (9.3), (9.6), (7), (3), (11.1), (3.2)

**Protected areas:** Girringun NP, Paluma Range NP, Ngalba-bulal NP (CYPAL), Mount Windsor NP, Dinden West FR, Bare Hill CP, Millstream Falls NP, Mount Lewis NP, Kamerunga CP, Tumoulin NP, Ravenshoe FR 1, Koombooloomba NP, Dinden NP, Danbulla South FR 2, Barron Gorge NP, Kuranda West FR, Davies Creek NP

**Extent in reserves:** High

**Wetland:** Riverine

**Special values:** 7.3.26: Important wildlife corridors in cleared landscapes.

**Comments:** 7.3.26: Scattered along the drier, northern, southern and western extremes of the bioregion. Severely affected by weed invasion, including species such as *Lantana camara* and *Mesosphaerum suaveolens*.

**Estimated extent:**<sup>1</sup> Pre-clearing 5000 ha; Remnant 2021 4000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Less than 30% remains which is not severely affected by weed invasion, including species such as *Lantana camara* and *Mesosphaerum suaveolens*, and there is less than 10 000 Ha remaining.

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## Regional ecosystem 7.3.27

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. *Corymbia tessellaris*, *Eucalyptus tereticornis*, *Lophostemon suaveolens*, *Melaleuca dealbata*, *Pandanus* spp. Open-forest. Sometimes has a rainforest component. Some areas dominated by *Allocasuarina torulosa*, *Corymbia intermedia* and *Syncarpia glomulifera*. Occurs on well drained creek levees on fine sandy clay loam. Riverine. (BVG1M: 16b).

**Short description:** Carbeen (*Corymbia tessellaris*), forest red gum (*Eucalyptus tereticornis*), swamp mahogany (*Lophostemon suaveolens*), red tea-tree (*Melaleuca dealbata*) riparian open forest on levees

**Supplementary descriptions:** Kemp and Morgan (1999), 45, 46, 47; Kemp et al. (1999), 44, 45, 46; Stanton and Stanton (2005), A153, A184, A32, A50

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Riverine

**Special values:** 7.3.27: Important wildlife corridors. Habitat for the endangered mahogany glider (*Petaurus gracilis*).

**Comments:** 7.3.27: Rainforest species are most prominent in a narrow moister zone along the creek line itself. In places *Melaleuca dealbata* and *Corymbia tessellaris* may dominate the creek levees.

**Estimated extent:**<sup>1</sup>

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.28

**Description:** Rivers and streams including riparian herbfield and shrubland on river and stream bed alluvium, and rock within stream beds. Occurs on alluvial gravels, sands and sandy loams of river and stream beds, where substrate is unstable and subject to regular change, and also rock of any type within creek beds. Riverine. (BVG1M: 16d).

Vegetation communities in this regional ecosystem include:

7.3.28a: Open water within natural non-tidal rivers. Rivers and creeks. Riverine. (BVG1M: 16d).

7.3.28b: Bare sand or silt, herblands, grasslands, shrublands and woodlands (exotic species, particularly of grasses and herbs may dominate). Flood deposited gravel and sand banks in the beds of major streams. Riverine. (BVG1M: 16d).

7.3.28c: *Melaleuca viminalis* shrubland. Rock cobble and gravel deposits of the active flood path of major streams. Riverine. (BVG1M: 16d).

7.3.28d: Unvegetated rock. Creek beds and banks. Riverine. (BVG1M: 16d).

**Short description:** Rivers and streams including riparian herbfield and shrubland on river and stream bed alluvium and rock within stream beds

**Supplementary descriptions:** Stanton and Stanton (2005), A260b, A260c, A101, M260h, G260h, R260h, B260h, A231, G231, R231; Kemp and Morgan (1999), 43, 44; Kemp et al. (1999), 40, 41;

**Subregions:** 1, 3, 2, 9, 6, 7, (5), (4), (8), (9.3), (9.6), (9.4)

**Protected areas:** Girringun NP, Wooroonooran NP, Tully Gorge NP, Paluma Range NP, Daintree NP (CYPAL), Mount Windsor NP, Japoon NP, Barron Gorge NP, Koombooloomba NP, Mount Lewis NP, Gadgarra NP, Millstream Falls NP, Girramay NP, Davies Creek NP, Eubenangee Swamp NP, Ngalba-bulal NP (CYPAL), Tully Falls NP, Gulngay NP, Kamerunga CP, Dinden West FR, Danbulla South FR 2, Tumoulin NP, Hull River NP, Basilisk Range NP, Danbulla NP, Malbon Thompson FR, Ravenshoe FR 1, Maria Creek NP, Kuranda NP, Russell River NP, Koombooloomba CP, Kuranda West FR, Kirrama NP, Hinchinbrook Island NP, Herberton Range NP, Dinden NP, Little Mulgrave NP, Moresby Range NP

**Extent in reserves:** High

**Wetland:** Riverine

**Special values:** 7.3.28: An important component of stream ecology and structure influencing substrate types, depth gradients, flow characteristics and flooding characteristics.

**Comments:** 7.3.28: Occurs on most streams and rivers with sand bars. This regional ecosystem is subject to regular, variable disturbance and is highly susceptible to weed invasion. Weed species including *Psidium guajava*, *Lantana camara*, *Megathyrsus maximus*, *Urochloa mutica*, *Ageratum houstonianum* and *Stachytarpheta jamaicensis* are often very abundant.

**Estimated extent:**<sup>1</sup> Pre-clearing 9000 ha; Remnant 2021 9000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Less than 30% remains which is not severely affected by weed invasion, and there is less than 10 000 Ha remaining.

## Regional ecosystem 7.3.29

**Description:** Sedgelands and grasslands of permanently and semi-permanently inundated swamps, including areas of open water. Occurs in around permanent and semi-permanent swamps. Palustrine. (BVG1M: 34f).

Vegetation communities in this regional ecosystem include:

7.3.29a: Complex of sedgelands, grasslands, fernlands and forblands. Prominent species include *Cyperus lucidus*, *Actinoscirpus grossus*, *Lepironia articulata*, *Scleria poiformis*, *Gahnia sieberiana*, *Panicum paludosum*, *Isachne globosa*, *Blechnum indicum* and *Persicaria* sp. Semi-permanent swamps of coastal lowlands. Palustrine. (BVG1M: 34f).

7.3.29b: Open water. Semi-permanent swamps of coastal lowlands. Palustrine. (BVG1M: 34d).

**Short description:** Sedgelands and grasslands of permanently and semi-permanently inundated swamps, including areas of open water

**Supplementary descriptions:** Stanton and Stanton (2005), A84, A260f; Kemp and Morgan (1999), 13; Kemp et al. (1999), 12; Tracey and Webb (1975), 23a

**Subregions:** 1, 3, (2), (8)

**Protected areas:** Eubenangee Swamp NP, Girramay NP, Kuranda NP, Djalgarin CP, Gulngay NP, Jalum CP

**Extent in reserves:** Low

**Wetland:** Palustrine

**Special values:** 7.3.29: Habitat for threatened plant species including *Eleocharis retroflexa* and *Fimbristylis adjuncta*. Important habitat for migratory wetland birds.

**Comments:** 7.3.29: Formerly extensive on the coastal lowlands, particularly on the Herbert River floodplain. The vast majority of remnants are in very poor condition. Weeds of major concern include water hyacinth *Eichhornia crassipes*, and the ponded pasture species *Urochloa mutica* (para grass), and *Hymenachne amplexicaulis* (hymenachne).

**Estimated extent:**<sup>1</sup> Pre-clearing 3000 ha; Remnant 2021 900 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by weed invasion and drainage changes.

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## Regional ecosystem 7.3.30

**Description:** Complex of fernlands and sedgelands with emergent rainforest pioneering spp. Permanently wet peat swamps of alluvial plains. Palustrine. (BVG1M: 34c).

**Short description:** Complex of fernlands and sedgelands with emergent rainforest pioneering spp. in permanently wet peat swamps of alluvial plains

**Supplementary descriptions:** Stanton and Stanton (2005), A90; Tracey and Webb (1975), 23a

**Subregions:** 3, 9, (2), (7)

**Protected areas:** Ella Bay NP, Malbon Thompson FR, Daintree NP (CYPAL), Eubenangee Swamp NP

**Extent in reserves:** Low

**Wetland:** Palustrine

**Special values:**

**Comments:** 7.3.30: Apparently formerly extensive in the now largely drained Babinda Swamp. Rare and scattered from Innisfail to Cape Tribulation. Once much more widespread near Babinda. Most remnants in very poor condition due to drainage changes and weed invasion.

**Estimated extent:**<sup>1</sup> Pre-clearing 400 ha; Remnant 2021 40 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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### Regional ecosystem 7.3.31

**Description:** *Lepironia articulata* (grey sedge) sedgeland to open sedgeland. Permanently to semi-permanently inundated peat swamps of alluvial plains. Palustrine. (BVG1M: 34f).

**Short description:** *Lepironia articulata* sedgeland to open sedgeland of permanently to semi-permanently inundated peat swamps of alluvial plains

**Supplementary descriptions:** Stanton and Stanton (2005), A76; Tracey and Webb (1975), 23b

**Subregions:** 3, (8)

**Protected areas:** Eubenangee Swamp NP

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 7.3.31: Potential habitat for NCA listed species: *Nepenthes mirabilis* (Bramston Beach).

**Comments:** 7.3.31: Coastal plains from Innisfail to Port Douglas.

**Estimated extent:**<sup>1</sup> Pre-clearing 700 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by drainage changes.

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### Regional ecosystem 7.3.32

**Description:** *Imperata cylindrica* (blady grass) and/or *Sorghum nitidum* (native sorghum) and/or *Mnesithea rottboellioides* (northern canegrass) and/or *Themeda triandra* (kangaroo grass) closed tussock grassland. Moderately to well-drained alluvial plains. Not a Wetland. (BVG1M: 32a).

Vegetation communities in this regional ecosystem include:

7.3.32a: *Imperata cylindrica* and/or *Sorghum nitidum* and/or *Mnesithea rottboellioides* closed grassland. Moderately to well-drained alluvial plains. Not a Wetland. (BVG1M: 32a).

7.3.32b: Grassland dominated by *Themeda triandra*. Moderately to well-drained alluvial plains. Not a Wetland. (BVG1M: 32a).

**Short description:** *Imperata cylindrica* and/or *Sorghum nitidum* and/or *Mnesithea rottboellioides* and/or *Themeda triandra* closed tussock grassland on alluvial plains

**Supplementary descriptions:** Stanton and Stanton (2005), A86, A59; Kemp and Morgan (1999), 16; Kemp et al. (1999), 8, 15; Tracey and Webb (1975), 23a

**Subregions:** 1, 5, (2)

**Protected areas:** Paluma Range NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 7.3.32: Remnants of a once-widespread lowlands ecosystem in Australia, of which only 0.5% is considered to remain (Kirkpatrick et al., 1995). Essential habitat for *Tyto longimembris* (eastern grass owl) which is possibly declining.

**Comments:** 7.3.32: Formerly extensive on the coastal lowlands, particularly on the Herbert and Tully river floodplains. Now very close to extinction. Rare and scattered across coastal plains from Bluewater to Tully, formerly much more extensive ranging as far north as Cairns and once very common in the Herbert and Tully subregions. A remnant at the Ingham Airport reserve is in poor condition but retains good cover of blady grass in places, and harbours other native grass, sedge and herb species. All other remnants of *Imperata* dominated grasslands are apparently extremely degraded. The *Themeda* grasslands, though naturally very rare, have fared better, and the example in Clemant State Forest is in good condition.

**Estimated extent:**<sup>1</sup> Pre-clearing 12000 ha; Remnant 2021 50 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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### Regional ecosystem 7.3.33

**Description:** Open water, and narrow shoreline sedge fringes. Lakes within volcanic craters. Lacustrine. (BVG1M: 34a).

Vegetation communities in this regional ecosystem include:

7.3.33a: Sedgeland. Fringing lakes within volcanic craters. Palustrine. (BVG1M: 34a).

7.3.33b: Open water of lakes. Volcanic craters. Lacustrine. (BVG1M: 34a).

<b>Short description:</b>	Open water and narrow shoreline sedge fringes of lakes in volcanic craters
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A260e, A71
<b>Subregions:</b>	4, 7
<b>Protected areas:</b>	Crater Lakes NP, Danbulla NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Lacustrine
<b>Special values:</b>	7.3.33: A unique and rare lake ecosystem. Originally habitat for Lake Eacham rainbow fish ( <i>Melanotaenia eachamensis</i> ) which is now extinct from the lake and is Endangered under the Environment Protection and Biodiversity Conservation Act 1999.
<b>Comments:</b>	7.3.33: Restricted to the Atherton Tablelands at Lake Euramoo, Lake Barrine, Lake Eacham and Bromfield swamp. Fish and crayfish introductions to Lake Eacham have led to local extinction of at least one endemic fish. Lakes Barrine and Eacham experience heavy recreational use. 7.3.33a: Lake Euramoo is contained within the Wet Tropics World Heritage area and visitor traffic is controlled. Only fringing Lake Euramoo, on the Atherton Tablelands east of Lake Tinaroo. 7.3.33b: Atherton Tablelands.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 200 ha; Remnant 2021 200 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	A rare ecosystem subject to threatening processes (introduced fish, drainage changes).

### Regional ecosystem 7.3.34

**Description:** *Melaleuca viridiflora* var. *attenuata* open forest to closed forest. Broad swampy drainage lines of alluvial plains. Palustrine. (BVG1M: 22b).

<b>Short description:</b>	<i>Melaleuca viridiflora</i> var. <i>attenuata</i> open forest to closed forest on broad swampy drainage lines of alluvial plains
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A216; Kemp et al. (1999), 22; Tracey and Webb (1975), 18
<b>Subregions:</b>	1, 3, 2, (4), (7)
<b>Protected areas:</b>	Jalum CP, Paluma Range NP
<b>Extent in reserves:</b>	Low
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	7.3.34: Habitat for threatened species including <i>Myrmecodia beccarii</i> (ant plant) and <i>Hypochrysops apollo apollo</i> (apollo jewel butterfly).
<b>Comments:</b>	7.3.34: The <i>Melaleuca</i> described in this RE is similar to <i>M. viridiflora</i> , but is taller and with softer, paler bark, and a different flowering period. The landform on which it occurs is much swampier than RE 7.3.8 (standing water remains for several months of the year). In southern areas, this regional ecosystem provides a moist humid situation in an otherwise dry environment, and therefore harbours the southern-most populations of ant plant ( <i>Myrmecodia beccarii</i> ) and button plant ( <i>Dischidia nummularia</i> ). Scattered across the coastal plains from Bluewater to just north of Cairns, formerly much more common. Reasonably good condition except where heavily grazed.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 2000 ha; Remnant 2021 500 ha
<b>VM class:</b>	Endangered
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.3.35

**Description:** Acacia mangium (black wattle) and/or A. celsa (brown salwood) and/or A. polystachya closed forest. Alluvial plains. Not a Wetland. (BVG1M: 5d).

Vegetation communities in this regional ecosystem include:

7.3.35a: Acacia mangium and A. celsa open to closed forest. Lowlands of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 5d).

7.3.35b: Acacia celsa open to closed forest. Alluvial plains. Not a Wetland. (BVG1M: 5d).

7.3.35c: Acacia polystachya closed forest, or A. polystachya woodland with a secondary layer of vine forest species. Lowlands of the moist rainfall zone. Not a Wetland. (BVG1M: 5d).

**Short description:** Acacia mangium and/or A. celsa and/or A. polystachya closed forest on alluvial plains

**Supplementary descriptions:** Stanton and Stanton (2005), A12c, A40, A12a; Tracey and Webb (1975), 19

**Subregions:** 9, 1, 3, 2, 8, (5), (6)

**Protected areas:** Girringun NP, Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Eubenangee Swamp NP, Kuranda NP, Girramay NP, Maria Creek NP, Ella Bay NP, Macalister Range NP, Hinchinbrook Island NP, Gulngay NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.35: Naturally occurring Acacia dominated forest. Widely distributed across the coastal plain, particularly in wetter parts.

**Estimated extent:<sup>1</sup>** Pre-clearing 1000 ha; Remnant 2021 300 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.36

**Description:** Complex mesophyll vine forest, or simple notophyll vine forest. High rainfall, cloudy uplands on alluvium. Not a Wetland. (BVG1M: 1b).

Vegetation communities in this regional ecosystem include:

7.3.36a: Complex mesophyll vine forest. High rainfall, cloudy uplands, on alluvium. Not a Wetland. (BVG1M: 1b).

7.3.36b: Simple notophyll vine forest. Alluvium on uplands, in the cloudy wet and moist rainfall zone. Not a Wetland. (BVG1M: 6b).

7.3.36c: Complex notophyll vine forest. Highlands in the cloudy wet rainfall zone. Not a Wetland. (BVG1M: 1b).

**Short description:** Complex mesophyll vine forest or simple notophyll vine forest of high rainfall, cloudy uplands on alluvium

**Supplementary descriptions:** Stanton and Stanton (2005), A1b, A5a, A8; Tracey and Webb (1975), 1b, 5a, 8

**Subregions:** 7, 4, (6), (5)

**Protected areas:** Danbulla NP, Wooroonooran NP, Koombooloomba NP, Hinchinbrook Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.3.36: Potential habitat for NCA listed species: Agathis microstachya, Alloxydon flammeum.

**Comments:** 7.3.36: This RE is approaching the threshold of Endangered Vegetation Management Status and therefore consideration of any further clearing should be very carefully assessed. Central uplands of the bioregion.

**Estimated extent:<sup>1</sup>** Pre-clearing 1000 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by long term effects associated with timber harvesting, also approaching the threshold of Endangered Veg Mgmt status.

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### Regional ecosystem 7.3.37

**Description:** Complex semi-evergreen notophyll vine forest. Uplands on alluvium. Not a Wetland. (BVG1M: 2d).

**Short description:** Complex semi-evergreen notophyll vine forest of uplands on alluvium

**Supplementary descriptions:** Stanton and Stanton (2005), A5b; Tracey and Webb (1975), 5b

**Subregions:** 4

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 7.3.37: This RE along with 7.8.3 comprise the "Mabi Forest" listed as "Critically Endangered" under the Environment Protection and Biodiversity Conservation Act 1999.

**Comments:** 7.3.37: This regional ecosystem, once occurring on alluvial systems along streams amongst basalt on the Atherton tablelands, is now almost extinct due to clearing. Together with the RE 7.8.3a, this RE is known locally as "Mabi Forest" and is derived from the word "mabi" or "mapi" (which means Lumholtz's tree-kangaroo) used by the local Ngadjonji and Dulguburra Yidinji people. Atherton Tablelands. Virtually extinct with less than 8Ha remaining in very small fragments.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 10 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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### Regional ecosystem 7.3.38

**Description:** Complex notophyll vine forest with emergent *Agathis robusta* (Queensland kauri). Alluvial fans. Not a Wetland. (BVG1M: 5c).

**Short description:** Complex notophyll vine forest with emergent *Agathis robusta* on alluvial fans

**Supplementary descriptions:** Stanton and Stanton (2005), A6; Tracey and Webb (1975), 6

**Subregions:** 9, 8, 1, (3), (5), (7)

**Protected areas:** Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL), Dinden NP, Kuranda West FR, Girringun NP, Paluma Range NP, Macalister Range NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.38: Scattered across the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 200 ha; Remnant 2021 200 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.39

**Description:** *Eucalyptus tereticornis* (forest red gum) +/- *E. platyphylla* (poplar gum) +/- *Corymbia intermedia* (pink bloodwood) +/- *Lophostemon suaveolens* (swamp mahogany) open woodland to open forest, and associated sedgelands and grasslands. Broad swampy drainage depressions of uplands. Contains Palustrine. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

7.3.39a: *Eucalyptus tereticornis* open woodland. Small groves of *E. platyphylla* occur as a lower layer in some areas. Seasonal swamp of broad drainage lines in uplands. Moist rainfall zone. Not a Wetland. (BVG1M: 9e).

7.3.39b: Closed sedgeland. Permanently wet swamps of drainage lines in upland situations. Palustrine. (BVG1M: 34f).

7.3.39c: Ephemeral freshwater swamp. Drainage depressions in upland situations. Palustrine. (BVG1M: 34f).

7.3.39d: Mixed grassland-sedgeland complex with scattered and clumped shrubs of *Lophostemon suaveolens* and *Xanthorrhoea johnsonii*. Alluvium in uplands. Not a Wetland. (BVG1M: 34c).

**Short description:** *Eucalyptus tereticornis* +/- *E. platyphylla* +/- *Corymbia intermedia* +/- *Lophostemon suaveolens* open woodland to open forest and associated sedgelands and grasslands on broad drainage depressions of uplands

**Supplementary descriptions:** Stanton and Stanton (2005), G136, G137, R137, B136, A137, A136, B137, W136, G62 in part (Qld Herbarium and WTMA (2005) G62a), A62 in part (Qld Herbarium and WTMA (2005) A62a), L62 in part (Qld Herbarium and WTMA (2005) L62a).

**Subregions:** 5, 4, 6, (9), (9.4)

**Protected areas:** Kirrama NP, Curtain Fig NP, Hasties Swamp NP, Girringun NP, Mount Windsor NP, Baldy Mountain FR, Koombooloomba South FR

**Extent in reserves:** Medium

**Wetland:** Contains Palustrine

**Special values:** 7.3.39: Potential habitat for NCA listed species: *Oenanthe javanica*.

**Comments:** 7.3.39: Scattered across western parts of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by weed invasion and drainage changes.

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## Regional ecosystem 7.3.40

**Description:** *Eucalyptus tereticornis* (forest red gum) open forest. Well-drained alluvial plains of lowlands. Not a Wetland. (BVG1M: 9e).

**Short description:** *Eucalyptus tereticornis* open forest on well-drained alluvial plains of lowlands

**Supplementary descriptions:** Stanton and Stanton (2005), A32; Kemp and Morgan (1999), 27, 28; Kemp et al. (1999), 20; Tracey and Webb (1975), 19

**Subregions:** 1, 9, 2, (3), (6), (5), (11.1), (8), (7), (3.2)

**Protected areas:** Girringun NP, Halifax Bay Wetlands NP, Wooroonooran NP, Paluma Range NP, Girramay NP, Mount Mackay NP, Hull River NP, Hinchinbrook Island NP, Daintree NP (CYPAL), Djilgarin CP, Grey Peaks NP, Little Mulgrave NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 7.3.40: Potential habitat for NCA listed species: *Dendrobium bigibbum*, *Habenaria rumphii*, *Peristylus banfieldii*.

**Comments:** 7.3.40: Tends to pure stands of *E. tereticornis* (as opposed to the more mixed composition of 7.3.12). Taller stature than 7.3.12. This type has been very heavily cleared for sugar cane growing due to its occurrence on the better alluvial soils. Scattered across the coastal plains of most of the bioregion. This ecosystem has a long history of European exploitation due to its grazing and timber values.

**Estimated extent:**<sup>1</sup> Pre-clearing 16000 ha; Remnant 2021 4000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.41

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Eucalyptus tereticornis woodland to open forest with a prominent stratum of Melaleuca quinquenervia and/or M. viridiflora, poorly-drained lowland alluvial plains. Lowland alluvial plains. Not a Wetland. (BVG1M: 9c).

**Short description:** Eucalyptus tereticornis woodland to open forest with a prominent stratum of Melaleuca quinquenervia and/or M. viridiflora, poorly-drained lowland alluvial plains

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:**

**Estimated extent:**<sup>1</sup>

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.42

**Description:** Eucalyptus grandis (rose gum) open forest to woodland (or vine forest with emergent E. grandis). Alluvium. Not a Wetland. (BVG1M: 8a).

Vegetation communities in this regional ecosystem include:

7.3.42a: Eucalyptus grandis tall open forest and woodland. Alluvium. Not a Wetland. (BVG1M: 8a).

7.3.42b: Eucalyptus grandis tall open forest and woodland with a well-developed vine forest understorey. Alluvium. Not a Wetland. (BVG1M: 8a).

**Short description:** Eucalyptus grandis open forest to woodland (or vine forest with emergent E. grandis) on alluvium

**Supplementary descriptions:** Stanton and Stanton (2005), A56, A56v; Tracey and Webb (1975), 13c, 14a

**Subregions:** 4, (6)

**Protected areas:** Baldy Mountain FR, Tumoulin NP, Koombooloomba NP, Tully Falls NP, Herberton Range NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 7.3.42: Important habitat for arboreal mammals.

**Comments:** 7.3.42: This regional ecosystem includes examples with a well-developed rainforest understorey. Central-western parts of the bioregion in the vicinity of the Atherton Tablelands. This ecosystem is threatened by rainforest invasion that is preventing regeneration of the eucalypts and in many places is in irreversible transition to rainforest.  
7.3.42b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

**Estimated extent:**<sup>1</sup> Pre-clearing 100 ha; Remnant 2021 80 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by rainforest invasion and degraded by timber harvesting.

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## Regional ecosystem 7.3.43

**Description:** Eucalyptus tereticornis (forest red gum) open forest to woodland. Uplands on well-drained alluvium. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

7.3.43a: Eucalyptus tereticornis open forest, tall open forest and woodland including communities ranging from those dominated by E. tereticornis to mixtures of that species with Corymbia intermedia, E. drepanophylla, Lophostemon suaveolens and Allocasuarina torulosa. Uplands on alluvium. Contains Palustrine. (BVG1M: 9e).

7.3.43b: Eucalyptus tereticornis, Corymbia intermedia, E. reducta, Allocasuarina torulosa open forest, tall open forest and tall woodland. Uplands on alluvium. Not a Wetland. (BVG1M: 9e).

- Short description:** Eucalyptus tereticornis open forest to woodland on uplands on well-drained alluvium
- Supplementary descriptions:** Stanton and Stanton (2005), A32 in part (Qld Herbarium and WTMA (2005) A32b), A14c; Tracey and Webb (1975), 14c
- Subregions:** 8, 6, 5, 9, 4, (9.4), (7), (9.3), (11.1), (9.6)
- Protected areas:** Kuranda NP, Daintree NP (CYPAL), Koombooloomba NP, Paluma Range NP, Mount Lewis NP, Kuranda West FR, Girringun NP, Dinden West FR, Ngalba-bulal NP (CYPAL), Hasties Swamp NP, Tumoulin NP, Kirrama NP, Tully Falls NP, Dinden NP, Koombooloomba South FR, Baldy Mountain FR, Gadgarra NP, Ravenshoe FR 1, Danbulla NP
- Extent in reserves:** High
- Wetland:** Not a Wetland
- Special values:**
- Comments:** 7.3.43: Widely distributed in the uplands of the bioregion.
- Estimated extent:**<sup>1</sup> Pre-clearing 3000 ha; Remnant 2021 2000 ha
- VM class:** Of concern
- Biodiversity status:** Endangered
- Biodiversity status notes:** Less than 30% remains unaffected by severe degradation (weed invasion) and there are less than 10 000 Ha remaining.
-

## Regional ecosystem 7.3.44

**Description:** Eucalyptus leptophleba and/or Corymbia clarksoniana usually dominate the mid-dense canopy (mean height of 18 m). Eucalyptus platyphylla is frequently a co-dominant tree, and E. portuensis and Lophostemon suaveolens are sometimes present in the canopy. Melaleuca viridiflora and Acacia leptocarpa dominate the sparse sub-canopy (8.3 m tall,) with Planchonia careya and A. flavescens also frequently present. A sparse shrub/low tree layer (up to 2.5m tall) is usually present, and contains immature canopy and sub-canopy tree species, and frequently other Acacia species and Alphitonia excelsa. The dense ground layer is usually dominated by the grasses Imperata cylindrica and/or Themeda triandra. The graminoids Paspalidium distans, Chrysopogon fallax, Fimbristylis depauperata and F. dichotoma, forbs Brunoniella acaulis, Flemingia parviflora and Pycnospora lutescens, and grass tree Xanthorrhoea johnsonii are frequently present in the ground layer. Alluvium, in near-coastal areas with moderate rainfall. Not a Wetland. (BVG1M: 9b).

**Short description:** Eucalyptus leptophleba, Corymbia clarksoniana open forest to woodland on alluvium in near-coastal areas with moderate rainfall

**Supplementary descriptions:** Stanton and Stanton (2005), A34; Tracey and Webb (1975), 16h

**Subregions:** 2, 8, 9, (3), (6), (3.2)

**Protected areas:** Girringun NP, Macalister Range NP, Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Kuranda NP, Macalister Range FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.44: Mainly north of Cairns on the coastal plains. One small outlier in the far south near Cardwell.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 600 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.45

**Description:** *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *C. tessellaris* (Moreton Bay ash) +/- *E. drepanophylla* (ironbark) open forest to open woodland. Alluvial plains. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

7.3.45a: *Eucalyptus drepanophylla*, *Corymbia clarksoniana*, +/- *E. platyphylla*, +/- *C. tessellaris*, +/- *C. dallachiana* woodland to open forest. Lowland alluvial plains of southern, drier areas. Not a Wetland. (BVG1M: 9e).

7.3.45b: *Corymbia clarksoniana* woodland to open forest. May include small areas of *Acacia leptostachya* shrubland. Alluvial plains. Not a Wetland. (BVG1M: 9e).

7.3.45c: *Corymbia clarksoniana* and *C. tessellaris* +/- *E. tereticornis* +/- *E. platyphylla* +/- *Lophostemon suaveolens* +/- *Melaleuca dealbata* +/- *C. dallachiana* woodland. Alluvial plains. Not a Wetland. (BVG1M: 9e).

7.3.45d: *Corymbia tessellaris*, *C. intermedia*, *C. clarksoniana* grassy woodland, open woodland and sparse woodland occurring only on the Palm Islands. Alluvial fans. Not a Wetland. (BVG1M: 9e).

7.3.45e: Woodland with *Corymbia clarksoniana* in the Cowie Point and Duncans Flat area. Alluvium. Not a Wetland. (BVG1M: 9e).

7.3.45f: *Corymbia clarksoniana* dense open forest, with *Melaleuca dealbata*, *Eucalyptus platyphylla*, *C. tessellaris*, *Lophostemon suaveolens*, and occasionally *E. pellita*. Dense secondary tree layer of *Alphitonia excelsa*, *Acacia oraria*, *A. mangium*, *A. crassicarpa*, *A. flavescens*, *Pandanus* sp., and *Planchonia careya*. (This vegetation community is practically extinct with all remnants being below mappable size.). Fine silts possibly of marine origin forming a very flat plain. Perhaps a recent natural invasion of the former marine plain. Redbank area. Not a Wetland. (BVG1M: 9e).

<b>Short description:</b>	<i>Corymbia clarksoniana</i> +/- <i>C. tessellaris</i> +/- <i>E. drepanophylla</i> open forest to open woodland on alluvial plains
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A144, A250b, A164, A232, A269, A226, A131 in part (Qld Herbarium and WTMA (2005) A247a); Kemp and Morgan (1999), 29, 34; Kemp et al. (1999), 30, 34; Tracey and Webb (1975), 16e, 19
<b>Subregions:</b>	1, 2, (8), (4), (6), (5), (9), (11.1), (3), (7), (9.4), (9.6), (9.3)
<b>Protected areas:</b>	Girringun NP, Paluma Range NP, Girramay NP, Kuranda NP, Kuranda West FR, Daintree NP (CYPAL), Hasties Swamp NP, Ngalba-bulal NP (CYPAL), Baldy Mountain FR, Mowbray NP, Mowbray CP, Orpheus Island NP
<b>Extent in reserves:</b>	Medium
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.3.45: The vegetation community 7.3.45f which occurred extensively on the plains south of Trinity Inlet is now extinct (a few very narrow, structurally and floristically altered roadside remnants remain).
<b>Comments:</b>	7.3.45: This RE is approaching the threshold of 'Of concern' Vegetation Management Act class and therefore consideration of any further clearing should be very carefully assessed. Widespread across drier parts of the bioregion. This ecosystem is under threat from clearing and weed invasion, particularly via clearing of fence, road and housing infrastructure, and the introduction of cattle grazing, on hobby farms, particularly in southern areas. The weed species <i>Mesosphaerum suaveolens</i> Stylo spp., and * <i>Passiflora suberosa</i> , * <i>P. pallida</i> , are common in southern areas, and may result from heavy grazing pressure. 7.3.45e: Cowie Point and Duncan's Flat in the Daintree area. 7.3.45f: This vegetation unit was based on a distinct photo-pattern from old aerial photography, and from a particular soil type and landform. Field evidence (Quaternary data) was also used from very thin remnant roadside strips of vegetation (which are not mappable). Therefore essentially extinct. Broad, very flat plain, between Gordonvale and Trinity Inlet (Redbank area) - formerly extensive, the vegetation community is now practically extinct. Species composition estimated on very small (unmappable) remnants on the plain.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 33000 ha; Remnant 2021 11000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	A rare ecosystem under threat from clearing and weed invasion and approaching the threshold of 'Of concern' Vegetation Management Act class.

## Regional ecosystem 7.3.46

**Description:** *Lophostemon suaveolens* (swamp mahogany) open forest to woodland. Alluvial plains. Not a Wetland. (BVG1M: 28e).

**Short description:** *Lophostemon suaveolens* open forest to woodland on alluvial plains

**Supplementary descriptions:** Stanton and Stanton (2005), A91; Kemp et al. (1999), 35; Tracey and Webb (1975), 19

**Subregions:** 1, 2, 6, (5), (3), (9), (8), (9.4)

**Protected areas:** Girringun NP, Gulngay NP, Girramay NP, Koombooloomba NP, Hull River NP, Malbon Thompson FR, Koombooloomba South FR, Hinchinbrook Island NP, Daintree NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.46: Scattered on coastal plains across most of the bioregion. Mostly in very poor condition with severe infestations of *Chrysopogon aciculatus* (Mackie's pest), *Mimosa pudica* (sensitive weed) and other weeds, particularly in areas with a history of cattle grazing (including State Forests).

**Estimated extent:**<sup>1</sup> Pre-clearing 7000 ha; Remnant 2021 2000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.3.47

**Description:** *Allocasuarina littoralis* (black sheoak), *Corymbia intermedia* (pink bloodwood) and *Lophostemon suaveolens* (swamp mahogany) open forest. Poorly-drained alluvium. Not a Wetland. (BVG1M: 9e).

**Short description:** *Allocasuarina littoralis*, *Corymbia intermedia* and *Lophostemon suaveolens* open forest on poorly drained alluvium

**Supplementary descriptions:** Stanton and Stanton (2005), A210

**Subregions:** 2, (6)

**Protected areas:** Hinchinbrook Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.47: Restricted to Hinchinbrook Island.

**Estimated extent:**<sup>1</sup> Pre-clearing 100 ha; Remnant 2021 100 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.3.48

**Description:** *Eucalyptus portuensis* (white mahogany) and *E. drepanophylla* (ironbark) +/- *Corymbia intermedia* (pink bloodwood), +/- *C. citriodora* (lemon scented gum) open woodland to open forest. Uplands on alluvium, in the dry zone. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.3.48a: *Eucalyptus portuensis*, *E. drepanophylla*, *Corymbia intermedia*, *C. citriodora*, *Lophostemon suaveolens*, woodland and open forest with *Melaleuca viridiflora*, *Acacia flavescens*, and *Allocasuarina littoralis*. Areas of alluvium on uplands and highlands of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

7.3.48b: *Corymbia citriodora*, *Eucalyptus portuensis*, *C. intermedia*, *Syncarpia glomulifera*, woodland, low woodland and open forest with *Callitris intratropica*, *Acacia calyculata* and *Xanthorrhoea johnsonii*. Areas of alluvium uplands and highlands of the moist and dry rainfall zone. Not a Wetland. (BVG1M: 10b).

**Short description:** *Eucalyptus portuensis* and *E. drepanophylla* +/- *Corymbia intermedia* +/- *C. citriodora* open woodland to open forest on dry uplands on alluvium

**Supplementary descriptions:** Stanton and Stanton (2005), A16m, A16i; Tracey and Webb (1975), 16m, 16i

**Subregions:** 4, 6, 8, (9.6), (9)

**Protected areas:** Kuranda West FR, Baldy Mountain FR, Daintree NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.3.48: In this RE the *E. portuensis* tends to be of lower stature and the ecosystem is more monospecific than 7.3.21 (and occurs in western rather than eastern areas). Scattered in western areas over most parts of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 200 ha; Remnant 2021 100 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by clearing and weed invasion.

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## Regional ecosystem 7.3.49

**Description:** Notophyll vine forest. Species include *Syzygium tierneyanum*, *Grevillea hilliana*, *G. baileyana*, *Chionanthus ramiflorus*, *Atractocarpus fitzalanii*, *Cryptocarya hypospodia*, *Millettia pinnata*, *Xanthostemon chrysanthus*, *Dysoxylum gaudichaudianum* and *Blepharocarya involucrigera*. It includes a drier northern form with sclerophyll emergents and vine thicket spp. including the additional species *Buchanania arborescens*, *Elaeocarpus arnhemicus*, *Lophostemon suaveolens* and *Erythrophleum chlorostachys*. Rubble terraces of streams. Riverine. (BVG1M: 4b).

Vegetation communities in this regional ecosystem include:

7.3.49a: *Tristaniopsis exiliflora* and *Xanthostemon chrysanthus* layered open forest, and closed forest. Common associated species include *Grevillea baileyana*, *G. hilliana*, and *Blepharocarya involucrigera*. Rubble terraces of streams. Riverine. (BVG1M: 22c).

7.3.49b: Closed forest with sclerophyll co-dominants and emergents. Dominants include *Acacia polystachya*, *Elaeocarpus arnhemicus*, *Lophostemon suaveolens*, *Erythrophleum chlorostachys*, *Syzygium tierneyanum*, *Buchanania arborescens*, *Rhus taitensis*, *Canarium australianum*, and *Melaleuca dealbata*. Minor seasonal streams. Riverine. (BVG1M: 4b).

7.3.49c: Mixed open forest, low open forest, low closed forest, vine woodland, and open scrub with *Lophostemon suaveolens*, *Chionanthus ramiflorus*, *Acacia flavescens*, and in areas of open scrub *Pittosporum spinescens* and *Wikstroemia indica*. Rock cobble deposits of river flood plain. Riverine. (BVG1M: 4b).

<b>Short description:</b>	Notophyll vine forest on rubble terraces of streams
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), B50, G50, R50, M50, CM50, Q50, A153, M184, A184
<b>Subregions:</b>	9, 7, 6, 5, (3), (8), (4), (1), (2), (9.3), (3.2), (9.6)
<b>Protected areas:</b>	Girringun NP, Daintree NP (CYPAL), Mount Lewis NP, Tully Gorge NP, Wooroonooran NP, Dinden NP, Danbulla NP, Girramay NP, Paluma Range NP, Mount Windsor NP, Kirrama NP, Davies Creek NP, Macalister Range NP, Kamerunga CP, Grey Peaks NP, Bare Hill CP, Koombooloomba NP, Baldy Mountain FR, Dinden West FR, Hinchinbrook Island NP, Ngalba-bulal NP (CYPAL), Japoon NP, Barron Gorge NP, Kuranda NP, Gadgarra NP, Kuranda West FR, Malbon Thompson FR, Danbulla South FR 2, Malbon Thompson CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Riverine
<b>Special values:</b>	7.3.49: Potential habitat for NCA listed species: <i>Buckinghamia ferruginiflora</i> , <i>Gymnostoma australianum</i> , <i>Hollandaea riparia</i> , <i>Sphaerantia chartacea</i> .
<b>Comments:</b>	7.3.49: This RE occurs across land zones on bedrock (excludes alluvial examples of Stanton and Stanton (2005) A50 which go into 7.3.25). Widespread across the bioregion.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 900 ha; Remnant 2021 900 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.3.50

**Description:** *Melaleuca fluviatilis* (tea tree) +/- vine forest species, open forest to closed forest. Alluvium fringing streams in drier areas. Riverine. (BVG1M: 22c).

Vegetation communities in this regional ecosystem include:

7.3.50a: *Melaleuca fluviatilis* open forest and woodland, often with *Casuarina cunninghamiana*, *Eucalyptus tereticornis*, *Lophostemon suaveolens*, *Corymbia intermedia* and *Nauclea orientalis*. Stream fringes. Riverine. (BVG1M: 22c).

7.3.50b: Low notophyll vine thicket with emergent *Melaleuca fluviatilis*. Coarse gravel beds in fast flowing streams. Riverine. (BVG1M: 22c).

**Short description:** *Melaleuca fluviatilis* +/- vine forest species open forest to closed forest on alluvium fringing streams

**Supplementary descriptions:** Stanton and Stanton (2005), A277, A252; Kemp et al. (1999), 42

**Subregions:** 1, (11.1), (5)

**Protected areas:** Paluma Range NP

**Extent in reserves:** Low

**Wetland:** Riverine

**Special values:**

**Comments:** 7.3.50: Coastal plain south of Rollingstone. Moderate to poor condition with many areas invaded by *Lantana camara*, \**Passiflora suberosa*, \**P. pallida* and *Mesosphaerum suaveolens*.

**Estimated extent:**<sup>1</sup> Pre-clearing 500 ha; Remnant 2021 500 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by weed invasion (*Lantana* and *Passiflora*)

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## Regional ecosystem 7.5.1

**Description:** *Eucalyptus tereticornis* (forest red gum), *Corymbia intermedia* (pink bloodwood) and *E. reducta* (Queensland stringybark) woodland to open forest of uplands. Weathered soils of a remnant surface. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.5.1a: *Eucalyptus tereticornis*, *Corymbia intermedia*, *E. reducta*, *Allocasuarina torulosa* tall open forest and tall woodland. Uplands on laterite. Not a Wetland. (BVG1M: 9c).

7.5.1b: *Eucalyptus tereticornis*, *E. drepanophylla*, *E. portuensis*, *Corymbia intermedia*, *C. tessellaris*, *Allocasuarina torulosa*, *Angophora floribunda* woodland to low woodland. Deep weathered soils of uplands. Not a Wetland. (BVG1M: 9d).

7.5.1c: *Eucalyptus tereticornis* open forest, tall open forest and woodland. Includes communities ranging from those dominated by *E. tereticornis* to mixtures of that species with *Corymbia intermedia*, *E. drepanophylla*, *Lophostemon suaveolens* and *Allocasuarina torulosa*. Deep weathered soils of basalt origin. Not a Wetland. (BVG1M: 9c).

7.5.1d: *Eucalyptus tereticornis* open forest, tall open forest and woodland. Includes communities ranging from those dominated by *E. tereticornis* to mixtures of that species with *Corymbia intermedia*, *E. drepanophylla*, *Lophostemon suaveolens* and *Allocasuarina torulosa*. Laterite. Not a Wetland. (BVG1M: 9c).

**Short description:** *Eucalyptus tereticornis*, *Corymbia intermedia* and *E. reducta* woodland to open forest of uplands on weathered soils of a remnant surface

**Supplementary descriptions:** Stanton and Stanton (2005), L14c, L32, X32, W16o; Tracey and Webb (1975), 14c, 16o

**Subregions:** 5, 4, (9.6)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.5.1: Central-western parts of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 800 ha; Remnant 2021 600 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem which is threatened by timber harvesting.

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## Regional ecosystem 7.5.2

**Description:** *Eucalyptus portuensis* (white mahogany) +/- *Corymbia intermedia* (pink bloodwood), open forest to woodland of uplands. Weathered soils of a remnant surface. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.5.2a: *Eucalyptus portuensis*, *Corymbia intermedia*, *E. tereticornis*, *Lophostemon suaveolens*, *Syncarpia glomulifera* open forest and woodland. Laterite. Not a Wetland. (BVG1M: 9d).

7.5.2b: *Eucalyptus portuensis*, *Corymbia intermedia*, *E. tereticornis*, *Lophostemon suaveolens*, *Syncarpia glomulifera* open forest and woodland. Deep weathered soils of basalt origin. Not a Wetland. (BVG1M: 9d).

7.5.2c: *Eucalyptus portuensis* +/- *Corymbia intermedia* +/- *Corymbia clarksoniana* +/- *Eucalyptus tereticornis* +/- *Lophostemon suaveolens* tall open forest to woodland with a mid layer of *Acacia flavescens*, *Allocasuarina torulosa*, and a grassy ground layer. Weathered soils of a remnant surface. Not a Wetland. (BVG1M: 9d).

7.5.2d: *Eucalyptus portuensis*, *Corymbia intermedia*, *E. drepanophylla* woodland to low woodland with *Acacia flavescens* and *Allocasuarina littoralis*. Includes small areas of *Themeda triandra* grassland. Laterite and weathered soils of a remnant surface. Not a Wetland. (BVG1M: 9d).

7.5.2e: *Corymbia intermedia*, *Eucalyptus platyphylla*, *Lophostemon suaveolens*, *E. drepanophylla* woodland to low woodland with *Melaleuca viridiflora*. Laterite. Not a Wetland. (BVG1M: 21a).

7.5.2f: *Eucalyptus drepanophylla*, *Corymbia clarksoniana* low woodland with *Acacia* spp. Laterite. Not a Wetland. (BVG1M: 13c).

7.5.2g: *Lophostemon confertus* low closed forest to closed forest. Laterite. Not a Wetland. (BVG1M: 28e).

7.5.2h: Grassy open woodland and shrublands. Species present are mostly those of surrounding woodland habitats plus a range of shrub species, commonly *Lophostemon grandiflorus*, *L. confertus*, *L. suaveolens*, *Timonius timon* var. *timon*, *Ficus rubiginosa* and *Acacia leptostachya*. Areas of shallow soil, with some rock pavement, on hillslopes. Laterite. Not a Wetland. (BVG1M: 28e).

**Short description:** *Eucalyptus portuensis* +/- *Corymbia intermedia* open forest to woodland of uplands on weathered soils of a remnant surface

**Supplementary descriptions:** Stanton and Stanton (2005), L15b, X15b, L197, L110, L41, L16m, W16m, L59, Le41-5w, L49; Tracey and Webb (1975), 15b, 16m

**Subregions:** 5, 9.6, 9.4, (6)

**Protected areas:** Girringun NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.5.2: Central-western parts of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 6000 ha; Remnant 2021 6000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 7.5.3

**Description:** *Eucalyptus portuensis* (white mahogany), *Corymbia citriodora* (lemon scented gum), and *E. drepanophylla* (ironbark), woodland to open forest of uplands. Weathered soils of a remnant surface. Not a Wetland. (BVG1M: 10b).

Vegetation communities in this regional ecosystem include:

7.5.3a: *Corymbia citriodora*, *Eucalyptus portuensis*, *E. drepanophylla*, *C. intermedia* woodland to low woodland with *Acacia calyculata* and *Xanthorrhoea johnsonii*. Laterite. Not a Wetland. (BVG1M: 10b).

7.5.3b: *Lophostemon confertus* shrubland. Laterite. Not a Wetland. (BVG1M: 28e).

**Short description:** *Eucalyptus portuensis*, *Corymbia citriodora* and *E. drepanophylla* woodland to open forest of uplands on weathered soils of a remnant surface

**Supplementary descriptions:** Stanton and Stanton (2005), L16i, L108; Tracey and Webb (1975), 16i

**Subregions:** 5, (9.4)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.5.3: Central-western parts of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 300 ha; Remnant 2021 300 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem which is threatened by timber harvesting.

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## Regional ecosystem 7.5.4

**Description:** *Corymbia intermedia* (pink bloodwood) or *Melaleuca viridiflora* (broad leaf tea tree) woodland to open forest of uplands. Weathered soils of a remnant surface. Contains Palustrine. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.5.4a: *Corymbia intermedia* +/- *Eucalyptus tereticornis* woodland and open forest with *Allocasuarina torulosa*, *A. littoralis*, *Lophostemon suaveolens*, *Acacia flavescens*, *Banksia aquilonia* and *Xanthorrhoea johnsonii*.

Weathered soils and laterite of a remnant surface. Not a Wetland. (BVG1M: 9e).

7.5.4b: *Corymbia intermedia*, *Allocasuarina torulosa*, *Lophostemon suaveolens* woodland and open forest. Laterite. Not a Wetland. (BVG1M: 9e).

7.5.4c: *Corymbia intermedia* +/- *Eucalyptus tereticornis*, +/- *Lophostemon suaveolens* open forest to low open forest with *Allocasuarina torulosa*, *A. littoralis*, *Acacia flavescens* and *Banksia aquilonia*. Deep weathered soils of basalt origin. Not a Wetland. (BVG1M: 9e).

7.5.4d: *Corymbia clarksoniana*, *E. drepanophylla* +/- *E. tereticornis* woodland to low woodland often with *Allocasuarina torulosa*, *Allocasuarina littoralis*, *Lophostemon suaveolens*, *Acacia cincinnata*, *A. flavescens*, *Banksia aquilonia*, *Xanthorrhoea johnsonii*. Weathered soils of a remnant surface. Not a Wetland. (BVG1M: 9e).

7.5.4e: *Corymbia intermedia*, *Allocasuarina torulosa*, *Lophostemon suaveolens* open forest and woodland. Weathered soils of a remnant surface. Not a Wetland. (BVG1M: 9e).

7.5.4f: *Corymbia intermedia*, *Allocasuarina torulosa*, *Lophostemon suaveolens* open forest and woodland. Deep weathered soils of basalt origin. Not a Wetland. (BVG1M: 9e).

7.5.4g: *Melaleuca viridiflora* woodland. Laterite. Palustrine. (BVG1M: 21a).

<b>Short description:</b>	<i>Corymbia intermedia</i> or <i>Melaleuca viridiflora</i> woodland to open forest of uplands on weathered soils of a remnant surface
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), L14d, W14d, X14d, L16e in part (Qld Herbarium and WTMA (2005) L250a), W16e in part (Qld Herbarium and WTMA (2005) W250a), X16e in part (Qld Herbarium and WTMA (2005) X250a), L78, W16e in part (Qld Herbarium and WTMA (2005) W250b); Tracey and Webb (1975), 14d, 16e
<b>Subregions:</b>	5, 6, (4), (9.6), (9.4)
<b>Protected areas:</b>	Baldy Mountain FR, Girringun NP
<b>Extent in reserves:</b>	Low
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	
<b>Comments:</b>	7.5.4: Threatened by grazing and associated erosion. Central-western parts of the bioregion.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 6000 ha; Remnant 2021 5000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.5.5

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem was removed prior to 2005, reason unknown. *Eucalyptus moluccana* woodland to open forest of uplands, on weathered soils of a remnant surface. On weathered soils of a remnant surface. Not a Wetland. (BVG1M: 13d).

**Short description:** *Eucalyptus moluccana* woodland to open forest of uplands, on weathered soils of a remnant surface

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:**

**Estimated extent:**<sup>1</sup>

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.8.1

**Description:** Complex mesophyll vine forest. Lowlands and foothills, on krasnozem soils derived from basalts and basic volcanic parent material. Very wet and wet rainfall zone. Not a Wetland. (BVG1M: 1a).

Vegetation communities in this regional ecosystem include:

7.8.1a: Complex mesophyll vine forest. Lowlands and foothills on basalt, of the very wet and wet rainfall zone. Not a Wetland. (BVG1M: 1a).

7.8.1b: Mesophyll vine forest. Lowlands and foothills on lateritic soils, of the very wet and wet rainfall zone. Not a Wetland. (BVG1M: 1a).

7.8.1c: Mosaic of fernland and low vine forest with *Chionanthus ramiflorus*. Steep rocky slopes and scree slopes. Not a Wetland. (BVG1M: 2a).

7.8.1d: Simple mesophyll vine forest with *Castanospermum australe*, *Dysoxylum pettigrewianum*, *Dysoxylum alliaceum*, *Ficus variegata*, *Chisocheton longistipitatus*, *Ailanthus integrifolia*, *Aleurites rockinghamensis*, *Wrightia laevis*, *Lindera queenslandica* and *Alstonia scholaris*. Small trees and shrubs are sparse and include *Myristica globosa*, *Gomphandra australiana*, *Acmenosperma claviflorum*, *Synima cordierorum*, *Brombya platynema* and *Wilkiea longipes*. *Calamus* spp. very uncommon. *Arenga australasica*, *Ptychosperma elegans* and *Archontophoenix alexandrae* are uncommon. Ground layer very sparse with ground ferns and ginger rare. *Benstonea monticola* can be locally common. Large vines prominent, epiphytes uncommon. Lowlands on krasnozem soils derived from basalts and basic volcanic parent material. Not a Wetland. (BVG1M: 1a).

<b>Short description:</b>	Complex mesophyll to mesophyll vine forest on well-drained basalt lowlands and foothills
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), B1a, B100, (also Qld Herbarium and WTMA (2005) B2a); Tracey and Webb (1975), 1a
<b>Subregions:</b>	3, 4, 7, (2)
<b>Protected areas:</b>	Wooroonooran NP, Tully Gorge NP, Japoon NP, Meingan Creek CP, Gadgarra NP, Clump Mountain NP, Barnard Island Group NP, Tully Falls NP, Palmerston Rocks NP, Japoon FR, Ella Bay NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.8.1: Habitat for threatened plant species including: <i>Carronia pedicellata</i> , <i>Chingia australis</i> , <i>Plesioneuron tuberculatum</i> , <i>Endiandra globosa</i> , <i>Salacistis ochroleuca</i> , <i>Pneumatopteris costata</i> and <i>Didymoglossum mindorense</i> . Also habitat for some other restricted and/or uncommon species including <i>Beilschmiedia volckii</i> , <i>Gouania australiana</i> , <i>Leichhardtia jensenii</i> . One of the few habitats of the unusual epiphyte <i>Procris pedunculata</i> .
<b>Comments:</b>	7.8.1: Ridges tend to have conspicuous broken canopies smothered by climber-towers due to storm and cyclone damage. Tree ferns, king-fern <i>Angiopteris evecta</i> and large fleshy herbs including ginger and aroids typify creek banks and steep gully sides. This RE is approaching the threshold of 'Of concern' Vegetation Management Act class and therefore consideration of any further clearing should be very carefully assessed. Lowlands from Tully to Gordonvale, with the major occurrence on the gentle relief characteristic of the basalt flows in the lower Palmerston area west of Innisfail. A very large proportion has been cleared for agriculture, and most accessible remnants not within protected areas have been logged. 7.8.1b: Defined by the extent of the Eubenangee soil type. Virtually extinct. 7.8.1d: Notable for the overall and comparatively low species diversity and the paucity of Wet Tropics regional endemic species. In particular the families Lauraceae, Myrtaceae, Proteaceae and Rutaceae are poorly represented. Areas further north under 7.8.1 are species rich, epiphytes common and have high numbers of Wet Tropics regional endemics present. Much of this RE has been cleared for grazing, agriculture and houses. Restricted to basalt soils around Clump Point. A very large proportion has been cleared for agriculture and residential development.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 30000 ha; Remnant 2021 11000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review

## Regional ecosystem 7.8.2

**Description:** Complex mesophyll vine forest. Ridgelines and exposed areas may support stunted, wind-sheared notophyll vine forest. High rainfall, cloudy uplands on basaltic krasnozems and euchrozems. Not a Wetland. (BVG1M: 1b).

Vegetation communities in this regional ecosystem include:

7.8.2a: Complex mesophyll vine forest. Uplands of the very wet and wet cloudy rainfall zones. Not a Wetland. (BVG1M: 1b).

7.8.2b: Complex mesophyll vine forest recovering from disturbance, with *Acacia celsa* canopy or emergents. Uplands of the very wet and wet cloudy rainfall zones. Not a Wetland. (BVG1M: 5d).

7.8.2c: Low notophyll vine forest with wind-shearing evident. A community of simple structure, with species composition determined by exposure, shallow soils, and severe drainage. Ridge crests, very steep slopes, and areas of shallow soil. Not a Wetland. (BVG1M: 5d).

**Short description:** Complex mesophyll vine forest of high rainfall, cloudy uplands on basalt, including small areas of wind-sheared notophyll vine forest on ridgelines

**Supplementary descriptions:** Stanton and Stanton (2005), B1b, B1b(a), B31; Tracey and Webb (1975), 1b

**Subregions:** 4, 7, (3), (6)

**Protected areas:** Wooroonooran NP, Tully Falls NP, Gadgarra NP, Crater Lakes NP, Tully Gorge NP, Danbulla NP, Danbulla South FR, Japoon NP, Topaz Road NP, Malanda Falls CP, Gadgarra FR, Tully Falls FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.8.2: Habitat for threatened species including: *Chingia australis*, *Asplenium unilateral*, *Cupaniopsis cooperorum*, *Aceratium sericoleopsis*, *Argyrodendron* sp. (Boonjie B.P. Hyland RFK2139), *Austromuellera trinervia*, *Mammea touriga*, *Peripentadenia mearsii*, *Pseuduvaria hylandii*. Restricted endemics include: *Actephila vernicosa*, *Tetrardisia bifaria*, *Garcinia gibbsiae*, *Melodorum topazense* and *Syzygium erythrocalyx*. Also habitat for uncommon/poorly known species including *Beilschmiedia volckii*. Some of the areas dominated by *Blepharocarya involucrigera* are of particular historic interest as it is a possibility they have been created by indigenous activities in pre-European times. Habitat for tree kangaroos.

**Comments:** 7.8.2: The dominant soil regional ecosystems are krasnozems while euchrozem soil types are found in association with basaltic scoria and cinder cones. Trees may occasionally reach 55 m in height. Areas of *Blepharocarya* although apparently disturbed communities, appear to be natural disturbance or man-made during pre-European times. Floristically very species rich. Uplands from Tully Falls to Tinaroo Dam (central and western Atherton Tablelands). This RE was heavily and selectively cleared on the Atherton Tableland for agricultural purposes due both to its inherent fertility and the gentle terrain on which it is found. Many of the remaining remnant patches have very low levels of integrity due to invasion by exotic species or by long-term persistence of vines such as *Calamus* spp. (lawyer cane). Most areas within state forests have been heavily logged. Much of this regional ecosystem is in a highly fragmented state.

**Estimated extent:**<sup>1</sup> Pre-clearing 52000 ha; Remnant 2021 21000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Less than 30% remains unaffected by weed invasion and the long lasting disturbance effects of logging.

## Regional ecosystem 7.8.3

**Description:** Complex semi-evergreen notophyll vine forest. Uplands on basaltic krasnozems, euchrozem-krasnozems and prairie soil types. Not a Wetland. (BVG1M: 2d).

Vegetation communities in this regional ecosystem include:

7.8.3a: Complex semi-evergreen notophyll vine forest. Uplands on basaltic krasnozems, euchrozem-krasnozems and prairie soil types. Not a Wetland. (BVG1M: 2d).

7.8.3b: [RE not in use]<sup>2</sup>: 7.8.3b has been amalgamated into 3.8.2d. Complex semi-evergreen to semi-deciduous notophyll vine forest in the Shiptons Flat area. Uplands on basalt. Not a Wetland. (BVG1M: 2d).

<b>Short description:</b>	Complex semi-evergreen notophyll vine forest of uplands on basalt
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), B5b, (and Qld Herbarium and WTMA (2005) B5bb); Tracey and Webb (1975), 5b
<b>Subregions:</b>	4, (7)
<b>Protected areas:</b>	Curtain Fig NP, Gadgarra NP, Hallorans Hill CP, Yungaburra NP, Herberton Range NP
<b>Extent in reserves:</b>	Low
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.8.3: Remnants on the Atherton Tablelands are of special historic significance as an indication of what the formerly extensive Mabi Forest was like. The Shipton's Flat example is naturally rare, and is of This RE is important tree kangaroo habitat. Threatened plant species include: <i>Alectryon semicinerus</i> , <i>Alloxylon flammeum</i> , <i>Elaeocarpus coorangooloo</i> , <i>Firmiana papuana</i> , <i>Gymnema stramineum</i> , <i>Phyllanthera grayi</i> and <i>Breynia macrantha</i> . <i>Parsonia wongabelensis</i> is a highly restricted species. This RE along with 7.3.37 make up the "Mabi Forest" listed as "Critically Endangered" under the Environment Protection and Biodiversity Conservation Act 1999.
<b>Comments:</b>	<p>7.8.3: This RE together with the RE 7.3.37 is known locally on the Atherton Tablelands as "Mabi Forest" and in the Shipton's Flat area as "Jarrabina Forest". Some of the remnants are on soils of marginal agricultural potential (prairie soil types) due to presence of basalt boulders through the profile. Most notable for the relative absence of regional endemics. Predominantly the central and western Atherton Tablelands, and a very small patch at Shiptons Flat near Cooktown. Fragments which remain of this ecosystem on the Atherton Tablelands include remnants at Tolga (the "Tolga Scrub"), Wongabel State Forest, Yungaburra State Forest, Mt Quincan, Curtain Fig Forest Reserve and the Seven Sisters. In pre-clearing times the RE covered a large continuous area of the Atherton Tableland north and west of Malanda. A considerable proportion of this highly endangered ecosystem remains under freehold tenure, and is highly fragmented. Exotic smothering vines, such as <i>Ipomoea corymbosa</i>, are invading many remnants.</p> <p>7.8.3a: This RE (together with RE 7.3.37) is known locally as "Mabi Forest" and is derived from the word "mabi" or "mapi" (which means Lumholtz's tree-kangaroo) used by the local Ngadjonji and Dulguburra Yidinji people.</p> <p>7.8.3b: This RE is now mapped as 3.8.2d. This RE is locally described by Kuku Nyungkal people as "Jarrabina Forest" (Jarrabina, in the Kuku Nyungkal language, means Bennett's tree-kangaroo).</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 19000 ha; Remnant 2021 900 ha
<b>VM class:</b>	Endangered
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.8.4

**Description:** Simple to complex notophyll vine forest. Uplands and highlands on basaltic krasnozems, of the cloudy wet rainfall zone. Not a Wetland. (BVG1M: 1b).

Vegetation communities in this regional ecosystem include:

7.8.4a: Complex notophyll vine forests. Highlands on very limited areas, of the cloudy wet rainfall zone. Not a Wetland. (BVG1M: 1b).

7.8.4b: Simple notophyll vine forest (often with *Agathis microstachya*). Highlands of the cloudy wet and moist rainfall zones. Not a Wetland. (BVG1M: 6b).

7.8.4c: Complex notophyll vine forest. Common canopy species include *Syzygium kuranda*, *Cryptocarya hypospodia*, *Beilschmiedia obtusifolia*, *Sloanea langii*, *Castanospora alphanthii*, *Acmena resa*, *Flindersia pimenteliana*, *F. bourjotiana*, *Stenocarpus sinuatus*, and *Buckinghamia celsissima*. Highlands of the moist rainfall zone. Not a Wetland. (BVG1M: 1b).

7.8.4d: *Acacia celsa* open to closed forest. Highly restricted, possibly man made disturbance - requires investigation. Foothills, uplands and highlands, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 5d).

**Short description:** Simple to complex notophyll vine forest of cloudy wet highlands on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B5a, B116, B8, B12a; Tracey and Webb (1975), 5a

**Subregions:** 4, 6, (7)

**Protected areas:** Tully Falls NP, Maalan NP, Wooroonooran NP, Koombooloomba NP, Herberton Range NP, Mount Hypipamee NP, Tully Gorge NP, Mount Fisher FR, Tumoulin NP, Ravenshoe FR 1

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.8.4: Habitat for regional endemics such as *Beilschmiedia brunnea* and *Darlingia ferruginea*. Threatened species include: *Cyathea celebica*, *Diploglottis pedleyi*, *Phlegmariurus filiformis*, *Dryopteris wattsi*, *Solanum hamulosum* and *Steghanthera australiana*. Other species of local significance are *Diospyros hemicycloides*.

**Comments:** 7.8.4: Threatened by timber harvesting in some areas. Floristically very species rich. The dominant type, 7.8.4b, is the most species rich. Floristically 7.8.4c appears to be intermediate between 7.8.4b and 7.8.3. As such, 7.8.4c contains elements of both, including: *Alectryon semicinerus*, *Aleurites rockinghamensis*, *Alloxylon flammeum*, *Beilschmiedia bancroftii*, *Castanospermum australe*, *Cryptocarya hypospodia*, *Endiandra palmerstonii*, *Endiandra sideroxylon*, *Pavetta australiensis* and *Syzygium kuranda*. This RE is approaching the threshold of 'Of concern' Vegetation Management Act class and therefore consideration of any further clearing should be very carefully assessed. From near Koombooloomba Dam, north to the Upper Barron area of the Atherton Tablelands. Large areas of this regional ecosystem on the Evelyn Tableland between Atherton and Tully Falls have been cleared for dairy and corn production. Areas of this regional ecosystem not within the WTQWHA are under freehold tenure and are highly fragmented.

**Estimated extent:**<sup>1</sup> Pre-clearing 29000 ha; Remnant 2021 10000 ha

**VM class:** Least concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Less than 10% remaining which has not been severely affected by logging activities. Only 35% remaining.



## Regional ecosystem 7.8.5

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Notophyll vine forests characterised by, and canopy dominated by, *Acacia melanoxylon* and *A. celsa*. Successional rainforest stage leading to a complex notophyll vine forest. Typical species may include *Acacia celsa*, *A. melanoxylon*, *Acmena smithii*. Occurs on cloudy wet uplands and highlands on basaltic krasnozems. Not a Wetland. (BVG1M: 6a).

**Short description:** Notophyll vine forest dominated by blackwood (*Acacia melanoxylon*) and/or brown salwood (*Acacia celsa*) on cloudy wet basalt uplands and highlands

**Supplementary descriptions:** Tracey and Webb (1975), 12d

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.8.5: At higher altitudes *Acacia melanoxylon* is dominant and *A. celsa* is only a minor component. This regional ecosystem represents a long-term deflected ecological succession.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.8.6

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Semi-deciduous mesophyll vine forest. Typical species include *Alstonia scholaris*, *Barringtonia calypttrata*, *Bischofia javanica*, *Blepharocarya involucrigera*, *Castanospermum australe*, *Dysoxylum pettigrewianum*, *Ficus virens*, *Flindersia brayleyana*. Occurs on moist basaltic krasnozem foothills. Not a Wetland. (BVG1M: 1a).

**Short description:** Semi-deciduous mesophyll vine forest on moist basalt foothills

**Supplementary descriptions:** Stanton and Godwin (1989), 86; Tracey and Webb (1975), 4

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.8.6: It is more characteristic of the wetter monsoonal regions of northern Australia. Very uncommon ecosystem in the wet tropics, largely confined to a small area of the Goldsborough Valley near Gordonvale in the rain shadow of the Bellenden Ker Range.

**Estimated extent:**<sup>1</sup>

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.8.7

**Description:** *Eucalyptus tereticornis* (forest red gum) open forest, and associated grasslands. Uplands and highlands on basaltic krasnozem and prairie soils, of the moist rainfall zone. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.8.7a: *Eucalyptus tereticornis* open forest, tall open forest and woodland. May also include *Corymbia intermedia*, *E. drepanophylla*, *Lophostemon suaveolens* and *Allocasuarina torulosa*. Uplands and highlands on basaltic krasnozem and prairie soils, of the moist rainfall zone. Not a Wetland. (BVG1M: 9c).

7.8.7b: *Themeda triandra* tussock grassland. Basalt uplands and highlands, and minor areas on coastal headlands. Not a Wetland. (BVG1M: 32b).

7.8.7c: Grasslands of unknown composition, possibly *Imperata cylindrica*. Presumed extinct. Basalt plains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Eucalyptus tereticornis* open forest and associated grasslands, predominantly on basalt uplands

**Supplementary descriptions:** Stanton and Stanton (2005), B32, B59, B86

**Subregions:** 6, 4, 5, (1), (3), (7), (9.3)

**Protected areas:** Koombooloomba NP, Tully Falls NP, Baldy Mountain FR, Curtain Fig NP, Barnard Island Group NP, Hallorans Hill CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.8.7: Potential habitat for NCA listed species: *Phaius australis*.

**Comments:** 7.8.7: This RE occurs on black clay soils (often darker and heavier than 7.8.8 and 7.8.10), and is usually taller in stature than these regional ecosystems. Occurs in central-western upland parts of the bioregion (and a small occurrence on lowlands SW of Ingham), Predominantly confined to a small area of basaltic krasnozem in the Kaban area between Atherton and Ravenshoe. A dense ground layer to 1 m is mainly composed of the grasses *Imperata cylindrica* and *Themeda triandra*. Appropriate fire management is urgently required.

7.8.7c: This grassland on basalt is believed to be extinct and has only been identified from old aerial photographs as no remaining areas have been found in field surveys.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem, threatened by weed invasion.

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## Regional ecosystem 7.8.8

**Description:** *Eucalyptus tereticornis* (forest red gum), *E. reducta* (Queensland stringybark) +/- *Angophora floribunda* (rough-barked apple) open forest to woodland. Occurs on basaltic krasnozem and prairie soils. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.8.8a: *Eucalyptus tereticornis*, *Corymbia intermedia*, *E. reducta*, *Angophora floribunda* tall open forest and tall woodland with *Allocasuarina torulosa*. Uplands and highlands on basalt, of the moist rainfall zone. Not a Wetland. (BVG1M: 9c).

7.8.8b: *Eucalyptus reducta* open forest to woodland. Uplands and highlands on basalt, of the moist rainfall zone. Not a Wetland. (BVG1M: 9d).

**Short description:** *Eucalyptus tereticornis*, *E. reducta* +/- *Angophora floribunda* open forest to woodland on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B14c, B30; Tracey and Webb (1975), 14c

**Subregions:** 4, (6)

**Protected areas:** Tumoulin NP, Millstream Falls NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 7.8.8: Potential habitat for NCA listed species: *Oenanthe javanica*.

**Comments:** 7.8.8: The presence of *Angophora floribunda* is often diagnostic of this vegetation community. Occurs on gentle topography and on deep soils. Western and northern parts of the Atherton Tablelands.

**Estimated extent:**<sup>1</sup> Pre-clearing 4000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Under review

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## Regional ecosystem 7.8.9

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. *Eucalyptus leptophleba*, *Corymbia clarksoniana*, *E. platyphylla*, *C. dallachiana*, *C. tessellaris*, *E. tereticornis*, *Erythrophleum chlorostachys*, *Lophostemon grandiflorus*, open forest to woodland with *Melaleuca viridiflora*, *M. minutifolia*. Occurs on the dry uplands on basaltic euchrozem-krasnozem. Not a Wetland. (BVG1M: 11c).

**Short description:** Molloy red box (*Eucalyptus leptophleba*) woodland on dry basalt uplands

**Supplementary descriptions:** Neldner and Clarkson (1995), 79; Tracey and Webb (1975), 16h

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.8.9: Restricted to an area of basaltic soils between Mareeba and Tolga. Subject to clearing.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.8.10

**Description:** Eucalyptus tereticornis (blue gum), E. drepanophylla (or E. granitica) (ironbarks), E. portuensis (white mahogany), Corymbia intermedia (pink bloodwood) woodland to open forest, or E. moluccana (gum-topped box) woodland to open forest. Uplands and highlands on basaltic euchrozem-krasnozem, of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.8.10a: Eucalyptus tereticornis, E. drepanophylla, E. portuensis, Corymbia intermedia, C. tessellaris woodland to open forest with Allocasuarina torulosa. Uplands and highlands on basaltic euchrozem-krasnozem, of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

7.8.10b: Eucalyptus moluccana woodland to open forest. Uplands and highlands on basalt, of the dry rainfall zone. Not a Wetland. (BVG1M: 13d).

**Short description:** Eucalyptus tereticornis, E. drepanophylla (or E. granitica), E. portuensis, Corymbia intermedia woodland to open forest, or E. moluccana woodland to open forest, of uplands and highlands on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B16o, B134, B132; Tracey and Webb (1975), 16o

**Subregions:** 4, (9.6), (6)

**Protected areas:** Millstream Falls NP, Ravenshoe FR 1

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.8.10: Mainly the Ravenshoe-Tumoulin area.

**Estimated extent:**<sup>1</sup> Pre-clearing 5000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.8.11

**Description:** Closed vineland of wind-disturbed vine forest. Basalt foothills of coastal ranges, mostly below 400 metres. Not a Wetland. (BVG1M: 5d).

Vegetation communities in this regional ecosystem include:

7.8.11a: Open areas in vine forests with sprawling vines and emergent vine-draped trees or clumps of trees. *Decalobanthus peltatus* is often present. Basalt foothills of coastal ranges, mostly below 400 metres. Not a Wetland. (BVG1M: 5d).

7.8.11b: Complex mesophyll vine forest on very wet and wet lowlands, suffering from extreme wind damage where at least half the canopy has been destroyed. Basalt foothills of coastal ranges, mostly below 400 metres. Not a Wetland. (BVG1M: 5d).

**Short description:** Closed vineland of wind-disturbed vine forest on basalt foothills and coastal ranges

**Supplementary descriptions:** Stanton and Stanton (2005), B66, B1ax(w)

**Subregions:** 3, (7), (4)

**Protected areas:** Wooroonooran NP, Japoon NP, Tully Gorge NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.8.11: Potential habitat for NCA listed species: *Diplazium cordifolium*.

**Comments:** 7.8.11: Naturally wind or cyclone-disturbed communities that appear to be in a stable state either due to repeated disturbance and exposure, or due to the perpetual prevention of tree regeneration under the vine tangle. Often steep, eastern-facing slopes which are exposed to cyclonic winds. Most occurrences on basalt are west of Innisfail.  
7.8.11a: Presumed to originate from cyclone damaged Type 1a forests.

**Estimated extent:**<sup>1</sup> Pre-clearing 600 ha; Remnant 2021 600 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.8.12

**Description:** Complex notophyll vine forest dominated by *Backhousia bancroftii* (Johnstone River Hardwood). Basaltic terraces and scree slopes of the North Johnstone River. Not a Wetland. (BVG1M: 5c).

**Short description:** Complex notophyll vine forest dominated by *Backhousia bancroftii* on basaltic terraces and scree slopes of the North Johnstone River

**Supplementary descriptions:** Stanton and Stanton (2005), B283; Tracey and Webb (1975), 2a

**Subregions:** 3, (7)

**Protected areas:** Wooroonooran NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.8.12: Threatened species include: *Barongia lophandra*, *Carronia pedicellata*, *Diploglottis pedleyi*, *Endiandra globosa*, *Lepiderema largiflorens* and *Didymoglossum mindorense*. *Sersalisia sessiliflora* and *Samadera* sp. (Barong B.Gray 742) are local endemics which are largely confined to this ecosystem. Habitat for *Syzygium erythrocalyx* that also occurs in RE 7.8.2.

**Comments:** 7.8.12: North Johnstone River. Was logged to varying degrees, but is now mostly in National Park. Cyclone Winifred (1986) damaged much of this ecosystem and it is recovering well.

**Estimated extent:**<sup>1</sup> Pre-clearing 300 ha; Remnant 2021 300 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by clearing.

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### Regional ecosystem 7.8.13

**Description:** Simple notophyll vine forest of *Blepharocarya involucrigera* (rose butternut). High rainfall, cloudy uplands on basalt. Not a Wetland. (BVG1M: 5c).

**Short description:** Simple notophyll vine forest of *Blepharocarya involucrigera* of high rainfall, cloudy uplands on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B109; Tracey and Webb (1975), 2a, 1b

**Subregions:** 4, (7)

**Protected areas:** Gadgarra NP, Crater Lakes NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.8.13: This regional ecosystem appears to occur on areas of shallow basalt over schist. This regional ecosystem may partly be a result of very old clearing or disturbance in pre-European times by indigenous communities.

**Estimated extent:**<sup>1</sup> Pre-clearing 100 ha; Remnant 2021 100 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem, threatened by ongoing fragmentation and degradation.

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### Regional ecosystem 7.8.14

**Description:** Complex notophyll vine forest with emergent *Agathis robusta* (Queensland kauri). Basalt. Not a Wetland. (BVG1M: 5c).

**Short description:** Complex notophyll vine forest with emergent *Agathis robusta*, on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B6, B57; Tracey and Webb (1975), 6, 1c

**Subregions:** 3, 7, (4)

**Protected areas:** Danbulla South FR, Little Mulgrave NP, Baldy Mountain FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.8.14: Potential habitat for NCA listed species: *Elaeocarpus coorangooloo*, *Firmiana papuana*.

**Comments:** 7.8.14: This RE tends to be semi-deciduous. Northern Atherton Tablelands (adjacent to Tinaroo Dam), and the Mulgrave River Valley.

**Estimated extent:**<sup>1</sup> Pre-clearing 700 ha; Remnant 2021 500 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by weed invasion.

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## Regional ecosystem 7.8.15

**Description:** Eucalyptus grandis (rose gum) open forest to woodland (or vine forest with E. grandis emergents). Basalt. Not a Wetland. (BVG1M: 8a).

Vegetation communities in this regional ecosystem include:

7.8.15a: Eucalyptus grandis open forest to woodland. Basalt. Not a Wetland. (BVG1M: 8a).

7.8.15b: Eucalyptus grandis open forest to woodland, with a well-developed vine forest understorey. Basalt. Not a Wetland. (BVG1M: 8a).

**Short description:** Eucalyptus grandis open forest to woodland (or vine forest with E. grandis emergents) on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B56, B56v

**Subregions:** 6, 4

**Protected areas:** Koombooloomba NP, Tully Falls NP, Herberton Range NP, Tumoulin NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.8.15: The area around Koombooloomba Pocket remains in good condition. Scattered along the western Atherton Tablelands. Lantana camara is a particularly problematic weed in this ecosystem. Vine forest invasion is also a threat.

7.8.15b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

**Estimated extent:**<sup>1</sup> Pre-clearing 500 ha; Remnant 2021 300 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by weed invasion, vine forest invasion, and residential development.

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## Regional ecosystem 7.8.16

**Description:** Eucalyptus resinifera (red mahogany) open forest to woodland. Basalt. Not a Wetland. (BVG1M: 8a).

Vegetation communities in this regional ecosystem include:

7.8.16a: Eucalyptus resinifera, Corymbia intermedia, E. cloeziana, Syncarpia glomulifera open forest and woodland with Allocasuarina torulosa. Uplands and highlands on basalt, of the moist rainfall zone. Not a Wetland. (BVG1M: 8a).

7.8.16b: Eucalyptus resinifera, Corymbia intermedia, E. cloeziana, Syncarpia glomulifera open forest and woodland with Allocasuarina torulosa and a very well-developed vine forest understorey. Uplands and highlands on basalt, of the moist rainfall zone. Not a Wetland. (BVG1M: 8a).

7.8.16c: Lophostemon confertus closed forest. Uplands and highlands on basalt, of the moist rainfall zone. Not a Wetland. (BVG1M: 28e).

**Short description:** Eucalyptus resinifera open forest to woodland on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B110, B14b, B14bv; Tracey and Webb (1975), 14b

**Subregions:** 6, 4

**Protected areas:** Koombooloomba NP, Tumoulin NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.8.16: Scattered along the western Atherton Tablelands. Vine forest invasion is a threat to this ecosystem.

7.8.16b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

**Estimated extent:**<sup>1</sup> Pre-clearing 400 ha; Remnant 2021 300 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by vine forest invasion.

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## Regional ecosystem 7.8.17

**Description:** Eucalyptus portuensis (white mahogany) and Corymbia intermedia (pink bloodwood), +/- C. citriodora (lemon scented gum) open forest to woodland. Basalt (deep, well-leached red krasnozems). Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.8.17a: Corymbia citriodora, Eucalyptus portuensis, C. clarksoniana, E. granitica woodland to open forest. Uplands and highlands on basalt, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 10b).

7.8.17b: Eucalyptus portuensis open forest to woodland. Uplands and highlands on basalt, of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

7.8.17c: Eucalyptus portuensis, Corymbia intermedia, E. tereticornis and Lophostemon suaveolens open forest to woodland. Uplands on basalt of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

**Short description:** Eucalyptus portuensis and Corymbia intermedia +/- C. citriodora open forest to woodland on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B15b, B16m, B16i; Tracey and Webb (1975), 15b, 16m, 16i

**Subregions:** 4, (5), (6), (9.6)

**Protected areas:** Millstream Falls NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:**

**Estimated extent:**<sup>1</sup> Pre-clearing 100 ha; Remnant 2021 100 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.8.18

**Description:** *Corymbia intermedia* (pink bloodwood) and/or *Lophostemon suaveolens* (swamp mahogany) +/- *Allocasuarina torulosa* (forest sheoak) open forest to woodland. Basalt. Contains Palustrine. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.8.18a: *Corymbia intermedia*, *Eucalyptus tereticornis*, *E. granitica* open forest to woodland with *Allocasuarina torulosa*, *A. littoralis*, *Lophostemon suaveolens*, *Acacia cincinnata*, *A. flavescens*, *Banksia aquilonia* and *Xanthorrhoea johnsonii*. Basalt. Contains Palustrine. (BVG1M: 9c).

7.8.18b: *Corymbia intermedia* open forest, with a very well-developed vine forest understorey. Basalt. Contains Palustrine. (BVG1M: 9c).

7.8.18c: *Corymbia intermedia*, *Allocasuarina torulosa*, *Lophostemon suaveolens* open forest to woodland. Basalt. Not a Wetland. (BVG1M: 9c).

7.8.18d: *Lophostemon suaveolens* woodland and open forest. Basalt. Not a Wetland. (BVG1M: 28e).

**Short description:** *Corymbia intermedia* and/or *Lophostemon suaveolens* +/- *Allocasuarina torulosa* open forest to woodland on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B16e in part (Qld Herbarium and WTMA (2005) B250a), B14d, B91, B73, B73v; Tracey and Webb (1975), 16e, 14d

**Subregions:** 5, 6, (4), (9.4), (9.6)

**Protected areas:** Girringun NP, Koombooloomba NP, Hallorans Hill CP, Tully Gorge NP

**Extent in reserves:** High

**Wetland:** Contains Palustrine

**Special values:**

**Comments:** 7.8.18: Threatened by ground stratum weeds. Mt Fox area and the western Atherton Tablelands.  
7.8.18b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.8.19

**Description:** *Corymbia clarksoniana* (Clarkson's bloodwood) open forest to woodland. Basalt. Not a Wetland. (BVG1M: 9c).

**Short description:** *Corymbia clarksoniana* open forest to woodland on basalt

**Supplementary descriptions:** Stanton and Stanton (2005), B250b (B16e); Tracey and Webb (1975), 16e

**Subregions:** 4, 6, (1), (3), (9.6), (9.3)

**Protected areas:** Girringun NP, Millstream Falls NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.8.19: Western Atherton Tablelands and lowlands SW of Ingham.

**Estimated extent:**<sup>1</sup> Pre-clearing 8000 ha; Remnant 2021 2000 ha

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 7.11.1

**Description:** Simple to complex mesophyll to notophyll vine forest on moderately to poorly drained metamorphics (excluding amphibolites) of moderate fertility of the moist and wet lowlands, foothills and uplands. Lowlands and foothills on xanthozems and red and yellow podzolic soils of metamorphic origin. Very wet and wet rainfall zones. Not a Wetland. (BVG1M: 2a).

Vegetation communities in this regional ecosystem include:

7.11.1a: Mesophyll vine forest. Lowlands and foothills on metamorphics. Very wet and wet rainfall zones. Not a Wetland. (BVG1M: 2a).

7.11.1b: Mesophyll vine forest recovering from disturbance, with *Acacia* spp. canopy or emergents. Lowlands and foothills on metamorphics, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 5d).

7.11.1c: Mesophyll vine forest. Lowlands and foothills on greenstone, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 2a).

7.11.1d: Mesophyll vine forest. Foothills on Tertiary duricrust (ferricrete) of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 2a).

7.11.1e: Mesophyll vine forest of steep rocky slopes, and valleys. Canopy frequently broken by fern covered rock faces. Sheltered areas of deeper soil support vine forests allied to Types 1b and 2a, while the most rock-strewn areas support *Ficus* spp. and *Heptapleurum actinophyllum*. Foothills and uplands on metamorphics, of the moist and wet rainfall zones. Not a Wetland. (BVG1M: 2a).

7.11.1f: Mosaic of fernland and low vine forest with *Chionanthus ramiflorus*. Steep rocky slopes and scree slopes on metamorphics. Not a Wetland. (BVG1M: 2a).

7.11.1g: Mesophyll vine forest with scattered feather palms (*Archontophoenix alexandrae*) in the sub-canopy. Seasonally inundated lowland areas on metamorphics. Not a Wetland. (BVG1M: 4a).

**Short description:** Simple to complex mesophyll to notophyll vine forest on moderately to poorly drained metamorphics (excluding amphibolites) of moderate fertility of the moist and wet lowlands, foothills and uplands

**Supplementary descriptions:** Stanton and Stanton (2005), Q2a, M2a, M2a(a), M2a(b), M2a(c), CM2a, Z2a, M100, M154, M72, L2a; Tracey and Webb (1975), 2a

**Subregions:** 9, 8, 7, 3, (4), (2)

**Protected areas:** Daintree NP (CYPAL), Wooroonooran NP, Japoon NP, Kuranda NP, Ngalba-bulal NP (CYPAL), Dinden NP, Mowbray NP, Little Mulgrave NP, Basilisk Range NP, Mount Lewis NP, Ella Bay NP, Djiru NP, Barron Gorge NP, Macalister Range NP, Kuranda West FR, Mount Mackay NP, Moeresby Range NP, Gadgarra NP, Danbulla NP, Eubenangee Swamp NP, Tully Gorge NP, Russell River NP, Barron Gorge FR, Walter Hill Range CP, Frankland Group NP, Family Islands NP, Mount Whitfield CP, Grey Peaks NP, Warrubullen CP, Jumrum Creek CP, Kuranda FR, Smithfield CP, Speewah CP, Hull River NP, Barnard Island Group NP, Daintree NP, Japoon FR, Macalister Range FR, ETTY Bay Road CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.1: Habitat for threatened plant species of 7.11.1a include: *Archidendron kanisii*, *Archidendropsis xanthoxylon*, *Asplenium wildii*, *Austromuellera trinervia*, *Beilschmiedia castrisensis*, *Cyclophyllum costatum*, *Dioclea hexandra*, *Endiandra grayi*, *Endiandra microneura*, *Euodia hylandii*, *Euodia pubifolia*, *Freycinetia marginata*, *Gardenia actinocarpa*, *Phlegmariurus* spp., *Lepiderema hirsuta*, *Megahertzia amplexicaulis*, *Microsorium membranifolium*, *Mitranthia bilocularis*, *Neostrearia fleckeri*, *Noahdendron nicholasii*, *Peripentadenia phelpsi*, *Samadera baileyana*, *Randia audasii*, *Ryparosa kurrangii*, *Sankowskyia stipularis*, *Symplocos crassiramifera*, *Vrydagzynea grayi*, *Whyanbeelia terrae-reginae* and *Xanthophyllum fragrans*. Also there are many locally restricted regional endemics and unusual species such as: *Austrocallerya australis*, *Coelospermum dasylobum*, *Cupaniopsis diploglottoides*, *Mischarytera megaphylla*, *Storckella australiensis*, *Tainia trinervis* and *Idiospermum australiense*. Other species of local significance are *Argyrodendron* sp. (*Whyanbeel* B.P.Hyland RFK1106), *Monoon patinatum* and *Rhodomyrtus effusa*.

**Comments:** 7.11.1: Occurs on more poorly-drained and lower fertility soils than 7.11.23. Widespread over central and eastern parts of the bioregion north of Tully. Many accessible areas have been subjected to extensive logging in the past.

**Estimated extent:**<sup>1</sup> Pre-clearing 146000 ha; Remnant 2021 130000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 7.11.2

**Description:** Notophyll or mesophyll vine forest with *Archontophoenix alexandrae* (feather palm) or *Licuala ramsayi* (fan palm). Foothills and tablelands on humic gley metamorphic-derived soils with seasonally impeded drainage. These poorly drained soils often display hummocky micro relief. Wet rainfall zone. Palustrine. (BVG1M: 4a).

Vegetation communities in this regional ecosystem include:

7.11.2a: Notophyll to mesophyll vine forest with *Licuala ramsayi* (fan palm). Swamps with seasonally impeded drainage of very the wet lower foothills. Palustrine. (BVG1M: 4a).

7.11.2b: Simple notophyll vine forest with *Licuala ramsayi* and *Pandanus* sp. Seasonal swamps of upland and highland areas on metamorphics. Palustrine. (BVG1M: 4a).

7.11.2c: *Licuala ramsayi* (fan palm), *Archontophoenix alexandrae*, *Oraniopsis appendiculata* palm forest. Upland swamps on metamorphics. Palustrine. (BVG1M: 4a).

7.11.2d: Notophyll to mesophyll forest with *Archontophoenix alexandrae*. Steep upper slopes and gully bottoms mostly of uplands, of the wet and very wet rainfall zones. Palustrine. (BVG1M: 4a).

**Short description:** Notophyll or mesophyll vine forest with *Archontophoenix alexandrae* or *Licuala ramsayi* on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M3b, CM3b, M214, Q227 (also Qld Herbarium and WTMA (2005) M175); Tracey and Webb (1975), 3b

**Subregions:** 9, 3

**Protected areas:** Daintree NP (CYPAL), Djiru NP, Ngalba-bulal NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:**

**Comments:** 7.11.2: Scattered across the bioregion north of about Tully.

**Estimated extent:**<sup>1</sup> Pre-clearing 100 ha; Remnant 2021 100 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 7.11.3

**Description:** Semi-deciduous mesophyll vine forest on metamorphics. Metamorphic foothills, of the moist to dry rainfall zones. Not a Wetland. (BVG1M: 2d).

Vegetation communities in this regional ecosystem include:

7.11.3a: Semi-deciduous mesophyll vine forest. Foothills on metamorphics, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 2d).

7.11.3b: *Terminalia arenicola* and *Acacia polystachya* low closed forest. Coastal metamorphic headlands. Not a Wetland. (BVG1M: 7a).

**Short description:** Semi-deciduous mesophyll vine forest on moist to dry metamorphic foothills

**Supplementary descriptions:** Stanton and Stanton (2005), M4, M172; Tracey and Webb (1975), 4

**Subregions:** 9, 3.2, 8, (7), (3)

**Protected areas:** Annan River (Yuku Baja-Muliku) NP, Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL), Barron Gorge NP, Mount Cook NP, Hope Islands NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Kuranda NP, Frankland Group NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.3: The dense even canopy (18-32 m tall) is composed of a mixture of deciduous and evergreen trees. Deciduous emergent trees are widely spaced. Emergent trees commonly possess very large plank buttresses up to 5 m in height. Surface roots are common. Foothills from Cairns north. Subject to reduction by fire in many parts of its range.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 7.11.4

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Mesophyll rainforest dominated by *Acacia mangium* and *A. celsa*. Typical species include *Acacia celsa*, *A. mangium*, *Alphitonia whitei*, *Alstonia muelleriana*, *A. scholaris*, *Cryptocarya mackinnoniana*, *Darlingia darlingiana*, *Dysoxylum excelsum*. Occurs on very wet and wet lowlands and foothills on yellow earths. Not a Wetland. (BVG1M: 1a).

**Short description:** Mesophyll vine forest dominated by brown salwood (*Acacia celsa*) on very wet to wet metamorphic lowlands and foothills

**Supplementary descriptions:** Tracey and Webb (1975), 12c

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.4: *Acacia mangium* and *A. aulacocarpa* dominate the canopy at about 20-30 m. Other rainforest species generally form a sub canopy at about 10-20 m. This widespread regional ecosystem is a result of past disturbances, particularly cyclones and/or past logging, and is a long-lasting intermediate successional community type which in places could be considered a deflected successional system.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.5

**Description:** *Eucalyptus pellita* (red stringybark) +/- *Corymbia intermedia* (pink bloodwood) open forest (or vine forest with *E. pellita* and *C. intermedia* emergents). Lowlands and foothills on metamorphics, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.11.5a: *Eucalyptus pellita*, *Corymbia intermedia*, *C. tessellaris* open forest with *Acacia celsa*, *A. cincinnata*, *A. mangium* and *A. flavescens*. Lowlands and foothills on metamorphics, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 9d).

7.11.5b: *Eucalyptus pellita*, *Corymbia intermedia*, *C. tessellaris* open forest with *Acacia celsa*, *A. cincinnata*, *A. mangium* and *A. flavescens* and with a very well-developed vine forest understorey. Lowlands and foothills on metamorphics, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 9d).

7.11.5c: *Corymbia intermedia*, *Eucalyptus pellita*, *E. tereticornis*, *C. tessellaris*, *C. torelliana*, open forest to woodland with *Acacia celsa*, *A. mangium*, *Lophostemon suaveolens* and *Syncarpia glomulifera*. Lowlands and foothills on metamorphics, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9c).

7.11.5d: *Corymbia intermedia*, *Eucalyptus pellita*, *E. tereticornis*, *C. tessellaris*, *C. torelliana*, open forest to woodland with *Acacia celsa*, *A. mangium*, *Lophostemon suaveolens* and *Syncarpia glomulifera*, and with a very well-developed vine forest understorey. Lowlands and foothills on metamorphics, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9c).

7.11.5e: *Eucalyptus pellita* and *Corymbia intermedia* open forest and woodland. Lowlands and foothills on metamorphics. Not a Wetland. (BVG1M: 9c).

7.11.5f: *Allocasuarina littoralis*, *A. torulosa*, *Acacia crassicarpa* and *Eucalyptus pellita* open forest. Lowlands and foothills on metamorphics. Not a Wetland. (BVG1M: 28e).

7.11.5g: *Corymbia intermedia*, *Eucalyptus pellita*, *E. tereticornis*, *C. tessellaris*, *C. torelliana* open forest with *Acacia celsa*, *A. mangium*, *Lophostemon suaveolens*, *Syncarpia glomulifera*. Foothills on Tertiary duricrust (ferricrete), of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 9c).

<b>Short description:</b>	<i>Eucalyptus pellita</i> +/- <i>Corymbia intermedia</i> open forest (or vine forest with <i>E. pellita</i> and <i>C. intermedia</i> emergents) on lowlands and foothills on metamorphics
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M106, M13a, M13av, M16b, M16bv, M80, L16b; Tracey and Webb (1975), 13a, 16b
<b>Subregions:</b>	9, 8, (3), (7), (2)
<b>Protected areas:</b>	Daintree NP (CYPAL), Mowbray NP, Kuranda NP, Ngalba-bulal NP (CYPAL), Wooroonooran NP, Mount Lewis NP, Family Islands NP, Dinden NP, Kuranda West FR, Gadgarra NP, Djiru NP, Japoon NP, Macalister Range NP, Smithfield CP, Basilisk Range NP, Little Mulgrave NP, Barron Gorge NP, Mount Windsor NP, Hope Islands NP (CYPAL), Warrubullen CP, Walter Hill Range CP, Daintree NP, Mowbray CP, Dinden CP, Hull River NP, Dinden West FR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.11.5: Potential habitat for NCA listed species: <i>Aphyllorchis queenslandica</i> , <i>Buckinghamia ferruginiflora</i> , <i>Freycinetia marginata</i> , <i>Randia audasii</i> , <i>Sphaerantia chartacea</i> , <i>Vrydagzynea grayi</i> , <i>Whyanbeelia terrae-reginae</i> .
<b>Comments:</b>	7.11.5: Scattered across the bioregion in central and eastern parts north from about the Murray River. In many areas the sclerophyll canopy component of this ecosystem is no longer regenerating, due to fire exclusion and the development of a rainforest understorey. 7.11.5b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning. 7.11.5d: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 30000 ha; Remnant 2021 27000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.11.6

**Description:** Syncarpia glomulifera (turpentine) +/-Eucalyptus pellita (red stringy bark) open forest. Deep soils on metamorphics. Not a Wetland. (BVG1M: 9d).

**Short description:** Syncarpia glomulifera +/- Eucalyptus pellita open forest of deep soils on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M13e, Q13e; Tracey and Webb (1975), 13e

**Subregions:** 7, 8, (9), (3)

**Protected areas:** Wooroonooran NP, Barron Gorge NP, Little Mulgrave NP, Dinden NP, Barron Gorge FR, Gadgarra NP, Daintree NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.6: Distinguished from 7.11.32 by its occurrence on relatively deep soils, and its taller stature. This regional ecosystem is typically multi-layered. The top layer of Eucalyptus spp. And Syncarpia glomulifera reach 25 m, below which is a 6-12 m high layer consisting of Acacia spp., Allocasuarina littoralis, Deplanchea tetraphylla, Lophostemon suaveolens and Dillenia alata. Beneath this layer is a closed rainforest canopy whose height, density and composition varies according to how recently this regional ecosystem was burnt. Scattered across the bioregion in central and eastern parts from about Innisfail north to the Daintree.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Under review

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## Regional ecosystem 7.11.7

**Description:** Complex notophyll vine forest with *Agathis robusta* (kauri pine) emergents. Metamorphics foothills and uplands, of the moist rainfall zone. Not a Wetland. (BVG1M: 5c).

Vegetation communities in this regional ecosystem include:

7.11.7a: Complex notophyll vine forests (with emergent *Agathis robusta*). Foothills and uplands of areas excluding the Seaview Range Subregion. Moist rainfall zone. Not a Wetland. (BVG1M: 5c).

7.11.7b: Complex notophyll vine forests (with emergent *Agathis robusta*) recovering from disturbance, with *Acacia* spp. canopy or emergents. Foothills and uplands on metamorphics, of the moist rainfall zone. Not a Wetland. (BVG1M: 5c).

7.11.7c: Complex notophyll vine forests (with emergent *Agathis robusta*). Foothills and uplands on greenstone, of the moist rainfall zone. Not a Wetland. (BVG1M: 5c).

7.11.7d: Complex notophyll vine forests. Foothills and uplands of the Seaview Range subregion. Moist rainfall zone. Not a Wetland. (BVG1M: 5c).

7.11.7e: Low closed forest of mixed sclerophyll and vine forest species. Rocky metamorphic slopes. Not a Wetland. (BVG1M: 5c).

**Short description:** Complex notophyll vine forest with *Agathis robusta* emergents on foothills and uplands on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), Q6, M6, (and Qld Herbarium and WTMA (2005) M6a), M6(a), M6(b), Z6, M183; Tracey and Webb (1975), 6

**Subregions:** 8, 9, 7, (5), (3), (3.2), (9.3)

**Protected areas:** Kuranda NP, Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL), Little Mulgrave NP, Mowbray NP, Dinden NP, Macalister Range NP, Barron Gorge NP, Paluma Range NP, Kuranda West FR, Mount Whitfield CP, Smithfield CP, Mount Windsor NP, Barron Gorge FR, Danbulla South FR, Gadgarra NP, Dinden CP, Wooroonooran NP, Kuranda FR, Mount Lewis NP, Macalister Range FR, Mount Peter CP, Ngalba Bulal NP, Earl Hill CP, Mowbray CP, Dinden West FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.7: Potential habitat for NCA listed species: *Acalypha lyonsii*, *Alloxylon flammeum*, *Alpinia hylandii*, *Bryobium dischorens*, *Mischocarpus albescens*, *Phyllanthera grayi*, *Coleus gratus*, *Senegalia albizioides*, *Sphaerantia discolor*, *Toecharia pterocarpum*, *Wetria australiensis*.

**Comments:** 7.11.7: A number of canopy species are deciduous, and heavy leaf fall is characteristic in the dry season. At the drier extremes (western margin) of this community's range, species such as *Buchanania arborescens*, *Canarium australianum*, *Pleigynium timorense*, *Strychnos psilosperma* and the grass *Leptaspis banksii* are typical. A feature of this regional ecosystem is the large number of tree species shared with the subtropical forests of the Southeast Queensland bioregion. Accordingly, there are very few regional endemics present. Floristically neither rich or poor and very similar structure, composition and assemblage to 7.12.7. Mainly from Gordonvale north, on eastern and central ranges. One small area northwest of Paluma. Most accessible areas have been extensively logged in the past.

**Estimated extent:**<sup>1</sup> Pre-clearing 28000 ha; Remnant 2021 26000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.11.8

**Description:** *Acacia polystachya* woodland to closed forest, or *Acacia mangium* (black wattle) and *Acacia celsa* (brown salwood) open forest to closed forest. Metamorphics. Not a Wetland. (BVG1M: 5d).

Vegetation communities in this regional ecosystem include:

7.11.8a: *Acacia polystachya* dominated communities. Mostly closed forest but includes some woodlands with a lower layer of vine forest species. Foothills on metamorphics of the moist rainfall zone. Not a Wetland. (BVG1M: 5d).

7.11.8b: *Acacia mangium* and *A. celsa* open forest to closed forest. Lowlands and foothills on metamorphics, of the very wet and wet rainfall zone. Not a Wetland. (BVG1M: 5d).

7.11.8c: *Acacia polystachya* low woodland. Metamorphic foothills. Not a Wetland. (BVG1M: 5d).

**Short description:** *Acacia polystachya* woodland to closed forest, or *Acacia mangium* and *Acacia celsa* open forest to closed forest, on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M12c, M40, Q40, M47; Tracey and Webb (1975), 12c

**Subregions:** 9, 8, (3), (7)

**Protected areas:** Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Macalister Range NP, Mowbray NP, Annan River (Yuku Baja-Muliku) NP, Eubenangee Swamp NP, Little Mulgrave NP, Kuranda West FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.8: These communities occur in areas of natural disturbance, probably derived from sclerophyll communities. Some appear to be quite stable (long term), whilst some areas are the effects of more recent (natural) disturbance. Central and northern parts of the bioregion (north of about Innisfail). This widespread regional ecosystem is a result of past disturbances, particularly cyclones and/or past logging, and is a long-lasting intermediate successional regional ecosystem, which in places could be considered a deflected successional system.

**Estimated extent:**<sup>1</sup> Pre-clearing 700 ha; Remnant 2021 700 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.9

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Notophyll semi-evergreen vine forest. This ecosystem is confined to the eastern and northern escarpments of the Seaview and Paluma Ranges. Typical species include *Aleurites moluccana*, *Argyrodendron polyandrum*, *Arytera divaricata*, *Canarium australianum*. Occurs on moist and dry foothills and uplands on yellow podzolic soils derived from schists. Not a Wetland. (BVG1M: 5b).

**Short description:** Notophyll semi-evergreen vine forest on moist to dry metamorphic foothills and uplands

**Supplementary descriptions:** Olsen: 27

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.9: This ecosystem has structural and floristic affinities to communities found on the eastern escarpment of the Macalister Range north of Cairns, but is sufficiently distinct to warrant separation. In particular, it would appear that *Agathis robusta* is not f.

**Estimated extent:**<sup>1</sup>

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.11.10

**Description:** *Acacia celsa* (brown salwood) open forest to closed forest. Metamorphics. Not a Wetland. (BVG1M: 5d).

Vegetation communities in this regional ecosystem include:

7.11.10a: *Acacia celsa* open forest to closed forest. Foothills and uplands on metamorphics (excluding amphibolites). Very wet and wet rainfall zone. Not a Wetland. (BVG1M: 5d).

7.11.10b: *Acacia celsa* open forest to closed forest. Foothills and uplands on amphibolites. Very wet and wet rainfall zone. Not a Wetland. (BVG1M: 5d).

**Short description:** *Acacia celsa* open forest to closed forest on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M12a, MA12a, Q12a; Tracey and Webb (1975), 12a

**Subregions:** 9, 7, 8, (3), (3.2), (4)

**Protected areas:** Daintree NP (CYPAL), Japoon NP, Ngalba-bulal NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Little Mulgrave NP, Wooroonooran NP, Dinden NP, Kuranda NP, Macalister Range NP, Barron Gorge NP, Mount Whitfield CP, Mowbray NP, Kuranda West FR, Ella Bay NP, Mount Windsor NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.10: This is stable ecosystem occurring on exposed, low fertility sites and is not a result of human disturbance. It is usually derived from rainforest communities. Scattered across the bioregion north from about Tully. This widespread ecosystem is a result of past disturbances, particularly cyclones and/or past logging, and is a long-lasting deflected successional regional ecosystem.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.11

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Notophyll rainforest, characterised by *Acacia cincinnata*, *A. polystachya* and *A. celsa*. Typical species include *Acacia celsa*, *A. cincinnata*, *A. polystachya*, *Alphitonia whitei*, *Alstonia muelleriana*, *A. scholaris*, *Argyrodendron polyandrum*. Occurs on wet foothills and uplands on metamorphic xanthozems and yellow earths. Not a Wetland. (BVG1M: 6b).

**Short description:** Notophyll vine forest dominated by *Acacia cincinnata*/*Acacia polystachya* on wet metamorphic foothills and uplands

**Supplementary descriptions:** Neldner and Clarkson (1995), 26; Tracey and Webb (1975), 12b

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.11: With increasing dryness such as in the China Camp-Bloomfield-Cooktown region, additional *Acacia* species (e.g. *A. oraria* and *A. leptocarpa*) become more frequent. Mainly confined to the Thornton Range area north of the Daintree River. This regional ecosystem type is a result of past cyclonic disturbance.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.12

**Description:** Simple notophyll vine forest. Metamorphic uplands and highlands. Moist to very wet rainfall zones. Contains Palustrine. (BVG1M: 6b).

Vegetation communities in this regional ecosystem include:

7.11.12a: Simple notophyll vine forest. Uplands of the cloudy wet and moist rainfall zones. Not a Wetland. (BVG1M: 6b).

7.11.12b: Simple notophyll vine forest recovering from disturbance, with *Acacia celsa* canopy or emergents. Uplands of the cloudy wet to moist rainfall zones. Not a Wetland. (BVG1M: 5d).

7.11.12c: Simple notophyll vine forest dominated by *Stockwellia quadrifida*. Very tall (40m-55m). Uplands of the cloudy wet to moist rainfall zones. Not a Wetland. (BVG1M: 6b).

7.11.12d: Simple notophyll vine forest with *Grevillea baileyana*, *Fagraea cambagei*, *Garcinia warrenii*, *Mischocarpus exangulatus*, *Benstonea monticola* and ground cover of *Blechnum* sp. Swampy soils associated with metamorphics on the headwater valleys of permanent streams and rivers. Palustrine. (BVG1M: 6b).

7.11.12e: Complex mesophyll vine forest. Uplands, of the very wet and wet cloudy rainfall zones. Not a Wetland. (BVG1M: 1a).

7.11.12f: Complex mesophyll vine forest recovering from disturbance, with *Acacia celsa* canopy or emergents. Uplands, of the very wet and wet cloudy rainfall zones. Not a Wetland. (BVG1M: 5d).

<b>Short description:</b>	Simple notophyll vine forest of moist to very wet metamorphic uplands and highlands
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M8, M8(a), M111, Q8, M126, M1b, M1b(a); Tracey and Webb (1975), 8
<b>Subregions:</b>	7, 9, (8), (4)
<b>Protected areas:</b>	Wooroonooran NP, Daintree NP (CYPAL), Gadgarra NP, Ngalba-bulal NP (CYPAL), Dinden NP, Little Mulgrave NP, Danbulla NP, Japoon NP, Danbulla South FR, Tully Gorge NP, Barron Gorge NP, Crater Lakes NP, Mowbray NP, Mount Windsor NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.11.12: Species rich and habitat for many local and regional endemics. Habitat for threatened plant species of 7.11.12a include: <i>Acronychia acuminata</i> , <i>Albizia</i> sp. (Windsor Tableland B.Gray 2181), <i>Argophyllum cryptophlebium</i> , <i>Austromuellera trinervia</i> , <i>Beilschmiedia castrisinensis</i> , <i>Wilkiea</i> sp. (McDowall Range J.G.Tracey 14552), <i>Lepiderema hirsuta</i> , <i>Megahertzia amplexicaulis</i> , <i>Mischocarpus albescens</i> and <i>Stenocarpus davallioides</i> . Other species of local significance are <i>Elaeocarpus johnsonii</i> and <i>Rhodomyrtus effusa</i> .
<b>Comments:</b>	7.11.12: Widespread in upland areas. Variable floristic composition from north to south. Widespread on uplands and highlands north of about Tully. 7.11.12e: None currently mapped, as all examples are vine invaded (7.11.12f).
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 35000 ha; Remnant 2021 30000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.11.13

**Description:** *Corymbia torelliana* (cadaghi) open forest, usually with a vine forest element. Metamorphics. Not a Wetland. (BVG1M: 9d).

**Short description:** *Corymbia torelliana* open forest, usually with a vine forest element, on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M13b, CM13b; Tracey and Webb (1975), 13b

**Subregions:** 9, 8, (3.2), (3)

**Protected areas:** Ngalba-bulal NP (CYPAL), Kuranda NP, Daintree NP (CYPAL), Dinden NP, Barron Gorge NP, Kuranda West FR, Dinden West FR, Mount Windsor NP, Mount Whitfield CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.13: Potential habitat for NCA listed species: *Randia audasii*, *Sphaerantia chartacea*.

**Comments:** 7.11.13: Almost always associated with a rainforest sub-canopy. Scattered across the ranges from north of Gordonvale.

**Estimated extent:**<sup>1</sup> Pre-clearing 3000 ha; Remnant 2021 3000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Under review

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## Regional ecosystem 7.11.14

**Description:** *Eucalyptus grandis* (rose gum) open forest to woodland, or *Corymbia intermedia* (pink bloodwood), *E. pellita* (red stringybark), and *E. grandis*, open forest to woodland (or vine forest with these species as emergents). Metamorphics. Not a Wetland. (BVG1M: 8a).

Vegetation communities in this regional ecosystem include:

7.11.14a: *Eucalyptus grandis* tall open forest and woodland. Metamorphics. Not a Wetland. (BVG1M: 8a).

7.11.14b: *Eucalyptus grandis* tall open forest and woodland, with a well-developed vine forest understorey. Metamorphics. Not a Wetland. (BVG1M: 8a).

7.11.14c: *Corymbia intermedia*, *Eucalyptus pellita*, *E. grandis*, *E. pellita* x *E. grandis*, tall open forest with *Acacia celsa* and *Allocasuarina torulosa*. Metamorphics. Not a Wetland. (BVG1M: 8a).

7.11.14d: *Corymbia intermedia*, *Eucalyptus pellita*, *E. grandis*, *E. pellita* x *E. grandis*, tall open forest with *Acacia celsa* and *Allocasuarina torulosa*, and with a very well-developed vine forest understorey. Metamorphics. Not a Wetland. (BVG1M: 8a).

**Short description:** *Eucalyptus grandis* open forest to woodland, or *Corymbia intermedia*, *E. pellita* and *E. grandis* open forest to woodland (or vine forest with these species as emergents) on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M121, M121v, M56, M56v, Q56, Q56v; Tracey and Webb (1975), 13c

**Subregions:** 7, 8, (5), (4), (9)

**Protected areas:** Dinden NP, Gadgarra NP, Little Mulgrave NP, Danbulla NP, Wooroonooran NP, Danbulla South FR, Paluma Range NP, Mount Windsor NP, Daintree NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.14: The development of a dense rainforest sub canopy effectively fire proofs this ecosystem and prevents the regeneration of the *Eucalyptus grandis*. This ecosystem is severely threatened by this process, with a large proportion now invaded by vine forest.

7.11.14b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

7.11.14c: This vegetation community is not currently mapped because all examples are vine forest-invaded which changes them to 7.11.14d.

7.11.14d: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Under review

## Regional ecosystem 7.11.15

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Simple notophyll rainforest, characterised by *Acacia melanoxylon* and/or *A. celsa*. Typical species include *Acacia celsa*, *A. melanoxylon*, *Acmena smithii*, *Alphitonia whitei*, *Alstonia muelleriana*, *Beilschmiedia collina*, *Blepharocarya involucrigera*. Occurs on cloudy wet uplands and highlands on metamorphic yellow earths. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple notophyll vine forest dominated by blackwood (*Acacia melanoxylon*), brown salwood (*Acacia celsa*) on cloudy wet metamorphic uplands and highlands

**Supplementary descriptions:** Tracey and Webb (1975), 12d

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.15: *Acacia melanoxylon* becomes progressively more dominant with increasing altitude.

**Estimated extent:**<sup>1</sup>

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.11.16

**Description:** *Eucalyptus portuensis* (white mahogany) and *Corymbia intermedia* (pink bloodwood) open forest to woodland. Metamorphics of foothills and uplands, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.11.16a: *Eucalyptus portuensis*, *Corymbia intermedia*, *E. drepanophylla*, *E. platyphylla*, *E. tereticornis*, *C. tessellaris*, *Lophostemon suaveolens*, *Syncarpia glomulifera* open forest to woodland. Foothills on metamorphics, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

7.11.16b: *Corymbia intermedia*, *Eucalyptus portuensis*, *E. drepanophylla*, *E. platyphylla*, *C. tessellaris*, *E. tereticornis*, *Syncarpia glomulifera*, *Lophostemon suaveolens*, *L. confertus* open forest to woodland with *Xanthorrhoea johnsonii* and *Cycas media*. Metamorphics. Not a Wetland. (BVG1M: 9d).

7.11.16c: *Eucalyptus portuensis*, *E. drepanophylla*, *Corymbia intermedia*, *Lophostemon suaveolens* open forest to woodland with *Melaleuca viridiflora*, *Acacia flavescens* and *Allocasuarina littoralis*. Lowlands and foothills of metamorphics. Not a Wetland. (BVG1M: 9d).

7.11.16d: *Eucalyptus drepanophylla* open woodland to woodland. Foothills and uplands on metamorphics, of the moist and dry rainfall zone. Not a Wetland. (BVG1M: 13c).

**Short description:** *Eucalyptus portuensis* and *Corymbia intermedia* open forest to woodland on metamorphics of foothills and uplands

**Supplementary descriptions:** Stanton and Stanton (2005), M15b, M16d, Q16d, Q16m in part (Qld Herbarium and WTMA (2005) Q16mb), M16m in part (Qld Herbarium and WTMA (2005) M16mb), Q150; Tracey and Webb (1975), 15b, 16d

**Subregions:** 5, 1, 8, 7, (9), (3), (4)

**Protected areas:** Macalister Range NP, Little Mulgrave NP, Wooroonooran NP, Barron Gorge NP, Gadgarra NP, Mount Whitfield CP, Kuranda West FR, Macalister Range FR, Daintree NP (CYPAL), Mowbray NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.16: Distinguished from 7.11.35 by a tendency to occur in wetter zones and by the either pure stands or co-dominance with *C. intermedia*, whereas 7.11.35 tends to occur in drier, more western areas, and often has ironbarks or *Corymbia citriodora* as a component. Poorly represented in protected tenures, and harvested for timber in some areas. Occasional on metamorphics throughout the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Under review

## Regional ecosystem 7.11.17

<b>Description:</b>	[RE not in use] <sup>2</sup> : History of this RE is unknown. <i>Eucalyptus pellita</i> , <i>Corymbia intermedia</i> , <i>E. tereticornis</i> , <i>C. tessellaris</i> , <i>C. torelliana</i> , <i>Acacia celsa</i> , <i>A. mangium</i> , <i>Lophostemon suaveolens</i> , <i>Syncarpia glomulifera</i> open forest to woodland. Occurs on the wet and moist lowlands and foothills on shallow red podzolics. Not a Wetland. (BVG1M: 9d).
<b>Short description:</b>	Red stringy bark ( <i>Eucalyptus pellita</i> ) woodland of the wet to moist metamorphic lowlands and foothills
<b>Supplementary descriptions:</b>	Stanton and Godwin (1989), 61; Tracey and Webb (1975), 16b
<b>Subregions:</b>	
<b>Protected areas:</b>	
<b>Extent in reserves:</b>	
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	7.11.17: This regional ecosystem is extensive between the Bloomfield and Daintree Rivers, from Whyanbeel to Speewah, the Mulgrave Valley, and along the Seaview and Cardwell Ranges. When regularly burnt, this ecosystem develops a ground layer dominated by <i>Imperata cylindrica</i> and <i>Themeda triandra</i> with an understorey of <i>Cycas media</i> , <i>Albizia procera</i> , <i>Acacia holosericea</i> , <i>Canarium australianum</i> , <i>Planchonia careya</i> and <i>Timonius timon</i> .
<b>Estimated extent:</b> <sup>1</sup>	
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 7.11.18

**Description:** *Corymbia intermedia* (pink bloodwood) and/or *C. tessellaris* (Moreton Bay ash) +/- *Eucalyptus tereticornis* (forest red gum), tall open forest to woodland (or vine forest with these species as emergents). Coastal metamorphic headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.11.18a: *Corymbia intermedia* open forest to tall open forest. Coastal metamorphic headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.11.18b: *Corymbia intermedia* open forest to tall open forest with a very well-developed vine forest understorey. Coastal metamorphic headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.11.18c: *Corymbia intermedia* open forest to tall open forest. Coastal metamorphic headlands and near-coastal foothills, on amphibolite. Not a Wetland. (BVG1M: 9c).

7.11.18d: *Corymbia intermedia* open forest to tall open forest with a very well-developed vine forest understorey. Coastal headlands and near-coastal foothills, on amphibolite. Not a Wetland. (BVG1M: 9c).

7.11.18e: *Corymbia tessellaris* and *C. intermedia* woodland to tall woodland and open forest. Coastal metamorphic headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.11.18f: *Corymbia tessellaris* and *C. intermedia* woodland to tall woodland and open forest with a very well-developed vine forest understorey. Coastal metamorphic headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.11.18g: *Eucalyptus tereticornis*, *Corymbia tessellaris*, *C. intermedia*, *E. drepanophylla*, *E. platyphylla*, *Lophostemon suaveolens* woodland and open forest and low layered grassy woodland with *Acacia aulacocarpa* and *Cycas media*. Foothills and coastal headlands on metamorphics. Wet and moist rainfall zones. Not a Wetland. (BVG1M: 9c).

7.11.18h: *Eucalyptus tereticornis*, *Corymbia tessellaris*, *E. pellita*, *C. intermedia*, *Melaleuca dealbata*, *Lophostemon suaveolens* woodland, low woodland and open forest with *Acacia mangium* and *A. crassicarpa*. Foothills and coastal headlands on metamorphics. Wet and moist rainfall zones. Not a Wetland. (BVG1M: 9c).

<b>Short description:</b>	<i>Corymbia intermedia</i> and/or <i>C. tessellaris</i> +/- <i>Eucalyptus tereticornis</i> open forest to woodland (or vine forest with these species as emergents) on coastal metamorphic headlands and foothills
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M73, M73v, MA73, MA73v, Q73, Q73v, M74, M74v, M16a, M16g, CM16g, Q16g; Tracey and Webb (1975), 16e, 16a, 16g
<b>Subregions:</b>	3, 9, 8, 7, (9.3), (2)
<b>Protected areas:</b>	Daintree NP (CYPAL), Basilisk Range NP, Ella Bay NP, Russell River NP, Mowbray NP, Japoon NP, Moresby Range NP, Ngalba-bulal NP (CYPAL), Dinden NP, Djiru NP, Hull River NP, Barron Gorge NP, Family Islands NP, Wooroonooran NP, Macalister Range NP, Smithfield CP, Kuranda NP, Kuranda West FR, Warrubullen CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.11.18: Potential habitat for NCA listed species: <i>Peristylus banfieldii</i> .
<b>Comments:</b>	7.11.18: Threatened by rainforest invasion and residential development. Distinguished from 7.11.43 and 7.11.51 by the dominance of <i>Corymbia intermedia</i> instead of <i>C. clarksoniana</i> (wetter zones than 7.11.143 and 7.11.51). Distinguished from 7.11.19 by its occurrence on headlands and near-coastal foothills as opposed to sub-coastal zones. Distinguished from 7.11.34 by its medium to tall stature (7.11.34 consists of mosaics of grasslands and shrublands with low wind-sheared eucalypt stands.). Scattered along coastal ranges north from about Cardwell. The structure and maintenance of this regional ecosystem are dependent upon appropriate fire management regimes. 7.11.18b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning. 7.11.18d: Well-developed vine forest understorey is probably a condition state caused by infrequent burning. 7.11.18f: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 6000 ha; Remnant 2021 2000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.11.19

**Description:** *Corymbia intermedia* (pink bloodwood) and/or *Lophostemon suaveolens* (swamp mahogany) open forest to woodland. Uplands on metamorphics. Contains Palustrine. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.11.19a: *Corymbia intermedia*, *Eucalyptus tereticornis*, *Allocasuarina torulosa*, *A. littoralis* and *Lophostemon suaveolens* open forest, low open forest and woodland with *Acacia cincinnata*, *A. flavescens*, *Banksia aquilonia* and *Xanthorrhoea johnsonii*. Uplands on metamorphics. Not a Wetland. (BVG1M: 9c).

7.11.19b: *Corymbia intermedia*, *Allocasuarina torulosa* and *Lophostemon suaveolens* open forest to woodland. Uplands on metamorphics, of the moist rainfall zone. Not a Wetland. (BVG1M: 9c).

7.11.19c: *Lophostemon suaveolens* woodland and open forest. Uplands on metamorphics. Contains Palustrine. (BVG1M: 9c).

<b>Short description:</b>	<i>Corymbia intermedia</i> and/or <i>Lophostemon suaveolens</i> open forest to woodland on uplands on metamorphics
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M14d, M91, Q91, M16e in part (Qld Herbarium and WTMA (2005) M250a), CM16e in part (Qld Herbarium and WTMA (2005) CM250a), Q16e in part (Qld Herbarium and WTMA (2005) Q250a); Tracey and Webb (1975), 14d, 16e
<b>Subregions:</b>	7, 8, 9, (9.6), (3), (4), (5), (1)
<b>Protected areas:</b>	Little Mulgrave NP, Kuranda NP, Wooroonooran NP, Daintree NP (CYPAL), Gadgarra NP, Dinden NP, Danbulla South FR, Barron Gorge NP, Dinden CP, Paluma Range NP, Dinden West FR, Mount Peter CP, Danbulla NP, Kuranda FR, Little Mulgrave FR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.11.19: Potential habitat for NCA listed species: <i>Marsdenia rara</i> , <i>Randia audasii</i> .
<b>Comments:</b>	7.11.19: Distinguished from 7.11.43 and 7.11.51 by the dominance of <i>Corymbia intermedia</i> instead of <i>C. clarksoniana</i> (usually higher altitude and/or wetter zones than 7.11.43 and 7.11.51). Distinguished from 7.11.16 by the occurrence on sub-coastal ranges as opposed to headlands and near coastal foothills. Widespread in the bioregion along the central ranges.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 8000 ha; Remnant 2021 6000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.11.20

**Description:** *Corymbia nesophila* (Melville Island bloodwood), *Corymbia clarksoniana* (Clarkson's bloodwood), *Eucalyptus platyphylla* (poplar gum), open woodland to open forest. Gently sloping metamorphic lowlands and foothills. Not a Wetland. (BVG1M: 14c).

<b>Short description:</b>	<i>Corymbia nesophila</i> , <i>Corymbia clarksoniana</i> , <i>Eucalyptus platyphylla</i> open woodland to open forest on gently sloping metamorphic lowlands and foothills
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M169, CM169; Tracey and Webb (1975), 16k
<b>Subregions:</b>	9, (9.3), (3.2)
<b>Protected areas:</b>	Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Mount Windsor NP, Annan River (Yuku Baja-Muliku) NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.11.20: Potential habitat for NCA listed species: <i>Cooktownia robertsii</i> , <i>Cucumis costatus</i> .
<b>Comments:</b>	7.11.20: Tends to be lower in the landscape and on more gradual slopes and lower fertility than 7.11.47. Far northwest of the bioregion.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 28000 ha; Remnant 2021 28000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.11.21

**Description:** Eucalyptus leptophleba (Molloy red box) woodland to open forest. Metamorphic uplands of the dry rainfall zone. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

7.11.21a: Eucalyptus leptophleba, Corymbia clarksoniana, C. tessellaris, C. dallachiana, E. platyphylla, E. tereticornis, Erythrophleum chlorostachys, Lophostemon grandiflorus woodland, low-woodland and open forest with Melaleuca viridiflora, M. monantha, Allocasuarina littoralis and A. luehmannii. Foothills and uplands on metamorphics, of the dry rainfall zone. Not a Wetland. (BVG1M: 9b).

7.11.21b: Grassland dominated by Themeda triandra (excluding Black Mountain examples). Foothills and uplands on metamorphics, of the dry rainfall zone. Not a Wetland. (BVG1M: 32b).

**Short description:** Eucalyptus leptophleba woodland to open forest on metamorphic uplands of the dry rainfall zone

**Supplementary descriptions:** Stanton and Stanton (2005), M16h, CM16h, M59 in part (Qld Herbarium and WTMA (2005) M267b); Tracey and Webb (1975), 16h

**Subregions:** 9, 8, 3.2, (3.5), (7), (9.3)

**Protected areas:** Ngalba-bulal NP (CYPAL), Kuranda NP, Kuranda West FR, Dinden West FR, Annan River (Yuku Baja-Muliku) RR, Daintree NP (CYPAL), Bare Hill CP, Annan River (Yuku Baja-Muliku) NP, Dinden NP, Davies Creek NP, Kalkajaka NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.21: Distinguished from 7.11.49 by its occurrence in drier, more north-western areas and by the common occurrence of species such as Erythrophleum chlorostachys, Melaleuca monantha, and Allocasuarina luehmannii. Texture contrast soils lower slopes. Poorly represented in protected tenures and threatened in some areas by timber harvesting. Western parts of ranges, north from about Gordonvale. The northern examples are generally in good condition, whilst the southwest examples are suffering clearing and fragmentation.

**Estimated extent:**<sup>1</sup> Pre-clearing 13000 ha; Remnant 2021 12000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.11.22

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Eucalyptus cullenii, Corymbia nesophila, E. platyphylla woodland, with Melaleuca nervosa. There is a sparse understorey to 2m typically including Grevillea glauca, G. parallela, Indigofera australis, Melaleuca viridiflora, Petalostigma banksii. Occurs on dry metamorphic ridge tops of gravelly clay loam. Not a Wetland. (BVG1M: 13a).

**Short description:** Cullen's ironbark (Eucalyptus cullenii) woodland on dry metamorphic ridge tops

**Supplementary descriptions:** Neldner and Clarkson (1995), 39; Tracey and Webb (1975), 16j

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.22: In the Wet Tropics this regional ecosystem occurs near the bioregional boundary with the Einasleigh Uplands, between Mareeba north through the Byerstown and Desailly Ranges through to Cooktown.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.23

**Description:** Complex mesophyll vine forest. Fertile, well drained metamorphics of footslopes in the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 1a).

Vegetation communities in this regional ecosystem include:

7.11.23a: Complex mesophyll vine forest. Fertile, well drained metamorphics of footslopes in the very wet and wet rainfall zones, in subregions other than the Daintree-Bloomfield. Not a Wetland. (BVG1M: 1a).

7.11.23b: Complex mesophyll vine forest. Fertile, well drained metamorphics of footslopes in the very wet and wet rainfall zones, of the Daintree-Bloomfield Subregion. Not a Wetland. (BVG1M: 1a).

**Short description:** Complex mesophyll vine forest on fertile, well-drained metamorphics of very wet and wet footslopes

**Supplementary descriptions:** Stanton and Stanton (2005), M1a, CM1a, M1ab, CM1ab; Tracey and Webb (1975), 1a

**Subregions:** 9, 7, (3), (8)

**Protected areas:** Daintree NP (CYPAL), Japoon NP, Little Mulgrave NP, Ngalba-bulal NP (CYPAL), Wooroonooran NP, Dinden NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.23: This ecosystem is habitat for a large number of endemic plant species.

**Comments:** 7.11.23: Occurs on better-drained and more fertile soils than 7.11.1. Scattered sparsely across the ranges north from Tully.

**Estimated extent:**<sup>1</sup> Pre-clearing 900 ha; Remnant 2021 800 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.24

**Description:** Closed vineland of wind-disturbed vine forest. Metamorphic slopes, often steep and exposed. Not a Wetland. (BVG1M: 5d).

Vegetation communities in this regional ecosystem include:

7.11.24a: Open areas in vine forests, dominated by sprawling vines, commonly *Decalobanthus peltatus* and a number of other vine species, presumed to mostly originate from cyclone damaged Type 2a forests (where the entire canopy has been destroyed.). Generally foothills of metamorphic (excluding amphibolite) coastal ranges below 400 metres, often steep and exposed. Not a Wetland. (BVG1M: 5d).

7.11.24b: Open areas in vine forests, dominated by sprawling vines, commonly *Decalobanthus peltatus* and a number of other vine species, presumed to mostly originate from cyclone damaged Type 2a forests (where the entire canopy has been destroyed.). Foothills of coastal ranges on amphibolite, often steep and exposed. Not a Wetland. (BVG1M: 5d).

7.11.24c: Areas of mesophyll to notophyll vine forest suffering from extreme wind damage where at least half the canopy has been destroyed. Foothills of coastal metamorphic ranges (excluding amphibolite), often steep and exposed. Not a Wetland. (BVG1M: 5d).

7.11.24d: Areas of mesophyll to notophyll vine forest suffering from extreme wind damage where at least half the canopy has been destroyed. Foothills of coastal ranges on amphibolite, often steep and exposed. Not a Wetland. (BVG1M: 5d).

7.11.24e: Complex mesophyll vine forest, suffering from extreme wind damage where at least half the canopy has been destroyed. Foothills of coastal ranges on metamorphics, often steep and exposed. Not a Wetland. (BVG1M: 5d).

7.11.24f: Simple notophyll vine forest (often with *Agathis microstachya*) suffering from extreme wind damage where at least half the canopy has been destroyed. Foothills of coastal ranges, often steep and exposed. Not a Wetland. (BVG1M: 5d).

7.11.24g: Complex notophyll vine forest (with emergent *Agathis robusta*) suffering from extreme wind damage where at least half the canopy has been destroyed. Foothills of coastal ranges, often steep and exposed. Not a Wetland. (BVG1M: 5d).

7.11.24h: Semi-deciduous mesophyll vine forest, suffering from extreme wind damage where at least half the canopy has been destroyed. Foothills of coastal ranges, often steep and exposed. Not a Wetland. (BVG1M: 5d).

<b>Short description:</b>	Closed vineland of wind-disturbed vine forest of metamorphic slopes, often steep and exposed
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M2ax(w), MA2ax(w), M66, MA66, Q2ax(w), Q66, M1ax(w), M6x(w), M8x(w), M4x(w)
<b>Subregions:</b>	3, 7, 9, (4), (8)
<b>Protected areas:</b>	Wooroonooran NP, Japoon NP, Daintree NP (CYPAL), Ella Bay NP, Basilisk Range NP, Djiru NP, Russell River NP, Mount Mackay NP, Tully Gorge NP, Dinden NP, Frankland Group NP, Walter Hill Range CP, Ngalba-bulal NP (CYPAL), Family Islands NP, Hull River NP, Mount Lewis NP, Moresby Range NP, Kuranda NP, Daintree NP, Japoon FR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.11.24: Potential habitat for NCA listed species: <i>Austromuellera trinervia</i> , <i>Endiandra microneura</i> , <i>Euodia pubifolia</i> .
<b>Comments:</b>	7.11.24: Naturally wind or cyclone-disturbed communities that appear to be in a stable state either due to repeated disturbance and exposure, or due to the perpetual prevention of tree regeneration under the vine tangle. Possibly also due to edaphic factors (unstable slopes). Widespread on near-coastal slopes north of about Cardwell.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 6000 ha; Remnant 2021 6000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.11.25

**Description:** Simple-complex mesophyll to notophyll vine forest. Lowlands and foothills on amphibolite, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 1a).

Vegetation communities in this regional ecosystem include:

7.11.25a: Mesophyll to notophyll vine forest. Lowlands and foothills on amphibolite of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 2a).

7.11.25b: Mesophyll vine forest recovering from disturbance, with *Acacia celsa* canopy or emergents. Lowlands and foothills, on amphibolite, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 5d).

<b>Short description:</b>	Simple-complex mesophyll to notophyll vine forest on amphibolites of the very wet lowlands and foothills
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), MA2a, MA2a(a); Tracey and Webb (1975), 2a
<b>Subregions:</b>	3, (7)
<b>Protected areas:</b>	Russell River NP, Ella Bay NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.11.25: Habitat for threatened plant species including <i>Paramapania parvibractea</i> . Most notable for the unusual and diverse floristic composition at low altitudes with <i>Balanops australiana</i> , <i>Alloxylon wickhamii</i> , <i>Licuala ramsayi</i> and <i>Hydriastele wendlandiana</i> . Other species of local significance include <i>Nepenthes mirabilis</i> (pitcher plant).
<b>Comments:</b>	7.11.25: This regional ecosystem has an abundance of members of the Proteaceae family. Occurs on poorly-drained, iron-rich soils. Very poorly surveyed for flora or fauna. The Graham Range north of Innisfail. Selectively logged in the past where adequate access was available. Much of the extent is in good condition, albeit cyclone affected.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 2000 ha; Remnant 2021 2000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 7.11.26

**Description:** Rock pavements with *Allocasuarina littoralis* (black sheoak) and *Syncarpia glomulifera* (turpentine) open shrubland to closed scrub or *Bombax ceiba* (kapok) and *Cochlospermum gillivraei* (kapok) open woodland, or *Acacia* spp. (wattles) shrubland. Metamorphic rock pavements. Not a Wetland. (BVG1M: 28e).

Vegetation communities in this regional ecosystem include:

7.11.26a: *Acacia flavescens*, *Allocasuarina littoralis* and *Allocasuarina torulosa* low shrubby open forest to woodland. Metamorphic rock pavements. Not a Wetland. (BVG1M: 28e).

7.11.26b: *Bombax ceiba* or *Cochlospermum gillivraei* deciduous open woodland to low open woodland. Metamorphic rock pavements. Not a Wetland. (BVG1M: 7b).

7.11.26c: Mountain rock pavements with a complex of open shrubland to closed scrub, woodland, low-woodland, open forest and grasslands. Main component: scrub (*Allocasuarina littoralis*, *Syncarpia glomulifera*, *Lophostemon confertus*, shrubland (*Banksia aquilonia*, *Leptospermum* sp.) and heath (*Xanthorrhoea johnsonii*, *Gahnia* spp., *Dicranopteris linearis*). Metamorphic rock pavements. Not a Wetland. (BVG1M: 29b).

7.11.26d: *Allocasuarina littoralis* open shrubland with occasional *Syncarpia glomulifera*. Ground cover of *Themeda triandra*, *Xanthorrhoea johnsonii*. Rocky slopes and colluvium derived from metamorphics. Not a Wetland. (BVG1M: 28e).

7.11.26e: *Allocasuarina littoralis* low woodland and open forest. Steep rocky mountain slopes, and ridge tops on metamorphics. Not a Wetland. (BVG1M: 28e).

7.11.26f: Bare rock of steep rocky mountain slopes, and ridge tops on metamorphics, associated with *Allocasuarina littoralis* (black sheoak) and *Syncarpia glomulifera* (turpentine) open shrubland to closed scrub or *Bombax ceiba* (kapok) and *Cochlospermum gillivraei* (kapok) open woodland, or *Acacia* spp. (wattles) shrubland. Steep rocky mountain slopes, and ridge tops on metamorphics. Not a Wetland. (BVG1M: 29b).

<b>Short description:</b>	<i>Allocasuarina littoralis</i> and <i>Syncarpia glomulifera</i> open shrubland to closed scrub or <i>Bombax ceiba</i> var. <i>leiocarpum</i> and <i>Cochlospermum gillivraei</i> open woodland or <i>Acacia</i> spp. shrubland on metamorphic rock pavements
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M182, M171, Q171, M145 in part (Qld Herbarium and WTMA (2005) M246d), M133, M260a in part, M21 in part (Qld Herbarium and WTMA (2005) M244b).
<b>Subregions:</b>	9, 8, 7, (3), (4)
<b>Protected areas:</b>	Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Macalister Range NP, Annan River (Yuku Baja-Muliku) RR, Wooroonooran NP, Gadgarra NP, Mount Windsor NP, Barron Gorge NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.11.26: Potential habitat for NCA listed species: <i>Xanthostemon verticillatus</i> .
<b>Comments:</b>	7.11.26: Widespread across the bioregion north from about Tully. Molasses grass is a common weed of this ecosystem and is a major threat. 7.11.26c: Minor components: 13f and 16f. (Webb and Tracey). 7.11.26f: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 400 ha; Remnant 2021 400 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	A rare ecosystem subject to weed and vine forest invasion.

## Regional ecosystem 7.11.27

**Description:** Simple microphyll vine-fern forest or microphyll vine-sedge forest. Metamorphic uplands and highlands of the wet rainfall zone. Not a Wetland. (BVG1M: 6b).

Vegetation communities in this regional ecosystem include:

7.11.27a: Simple microphyll vine-fern forest. Uplands and highlands of the cloudy wet rainfall zone. Not a Wetland. (BVG1M: 6b).

7.11.27b: Microphyll Vine-Sedge Forest with *Syzygium kuranda*, *Planchonella euphlebia*, *Podocarpus grayae*, *Musgravea stenostachya*, *Garcinia zichii*. Uplands of the wet rainfall zone. Not a Wetland. (BVG1M: 6b).

<b>Short description:</b>	Simple microphyll vine-fern forest or microphyll vine-sedge forest of wet metamorphic uplands and highlands
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M9, Q160, Q9; Tracey and Webb (1975), 9
<b>Subregions:</b>	9, 7, 8
<b>Protected areas:</b>	Daintree NP (CYPAL), Wooroonooran NP, Dinden NP, Japoon NP, Barron Gorge NP, Tully Gorge NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	7.11.27: A rare ecosystem, only moderately represented in protected areas. Scattered at moderate to high altitudes north from about Tully.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 600 ha; Remnant 2021 600 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 7.11.28

**Description:** Wind-sheared notophyll vine forest. Exposed metamorphic ridge-crests and steep slopes. Not a Wetland. (BVG1M: 5c).

<b>Short description:</b>	Wind-sheared notophyll vine forest of exposed metamorphic ridge crests and steep slopes
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), Q31, M31
<b>Subregions:</b>	9, 8, 7, (3)
<b>Protected areas:</b>	Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Wooroonooran NP, Dinden NP, Kuranda NP, Japoon NP, Barron Gorge NP, Mowbray NP, Little Mulgrave NP, Mount Windsor NP, Barron Gorge FR, Macalister Range NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.11.28: Species rich with many local and regional endemic species. Habitat for threatened plant species include: <i>Acronychia acuminata</i> , <i>Argophyllum cryptophlebium</i> , <i>Megahertzia amplexicaulis</i> and <i>Symplocos ampulliformis</i> . Restricted endemic plant species include: <i>Ceratopetalum iugumensis</i> , <i>Guioa sarcopterifruta</i> and <i>Wendlandia inclusa</i> . Other species of local significance are <i>Diospyros hemicycloides</i> and <i>Elaeocarpus johnsonii</i> .
<b>Comments:</b>	7.11.28: Distinguished from 7.11.1 and other similar ecosystems by its low, wind-sheared nature. Notable for the occurrence of mountain dwelling species at relatively low altitudes. Central ranges north from Innisfail.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 1000 ha; Remnant 2021 1000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 7.11.29

**Description:** Microphyll to notophyll vine forests with *Ceratopetalum virchowii* (dogwood) and/or *Uromyrtus metrosideros*, *Flindersia bourjotiana* (Queensland silver ash), *F. pimenteliana* (silkwood) and *Beilschmiedia oligandra* (walnut) +/- emergent *Licuala ramsayi* (fan palm) and *Oraniopsis appendiculata* (bronze palm), and associated sedgelands, shrublands and fernlands. Uplands, on sharply undulating metamorphics, of the moist rainfall zone. Contains Palustrine. (BVG1M: 7a).

Vegetation communities in this regional ecosystem include:

7.11.29a: Evergreen microphyll vine thicket and low to medium simple microphyll vine forest with *Uromyrtus tenella*, *Flindersia bourjotiana*, *Flindersia pimenteliana*, *Beilschmiedia oligandra*, *Ceratopetalum virchowii*, *Eidothea zoexylocarya*, *Stegathera maccooraia*, *Alloxylon wickhamii*, *Cardwellia sublimis*, *Lomatia milnerae*, *Elaeocarpus johnsonii*, *Baloghia parviflora* and *Callitris macleayana*. Uplands, on sharply undulating metamorphics. Not a Wetland. (BVG1M: 7a).

7.11.29b: Simple Notophyll Vine Forest with *Ceratopetalum virchowii*. Uplands, on sharply undulating metamorphics. A soil surface layer of fibric peat is common. Not a Wetland. (BVG1M: 7a).

7.11.29c: Sedgeland-shrubland complexes with emergent shrubs, fernland, with emergent shrubs, shrublands and low woodlands with *Allocasuarina littoralis*, *Melaleuca quinquenervia*, *Rhodomyrtus sericea*, *Melastoma malabathricum* subsp. *malabathricum*, *Gahnia sieberiana*, *Schoenus sparteus*, *Ischaemum australe*, *Dianella* sp. and *Drosera* spp. Uplands, on sharply undulating metamorphics. Palustrine. (BVG1M: 34f).

7.11.29d: Evergreen microphyll vine thicket and low microphyll vine forest with emergent *Licuala ramsayi* (fan palm) and *Oraniopsis appendiculata*. Uplands, on sharply undulating metamorphics. Not a Wetland. (BVG1M: 7a).

<b>Short description:</b>	Microphyll to notophyll vine forests with <i>Ceratopetalum virchowii</i> and/or <i>Uromyrtus metrosideros</i> , <i>Flindersia bourjotiana</i> , <i>F. pimenteliana</i> and <i>Beilschmiedia oligandra</i> of moist uplands on sharply undulating metamorphics
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M152, Q152, M167, Q167, M168, Q168, M162 in part (Qld Herbarium and WTMA (2005) M266a), Q162 in part (Qld Herbarium and WTMA (2005) Q266a); Tracey and Webb (1975), 2a
<b>Subregions:</b>	7, (9), (4)
<b>Protected areas:</b>	Wooroonooran NP, Daintree NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.11.29: Moderate floristic diversity. 7.11.29a and 7.11.29b have high regional and local endemism (e.g. <i>Bubbia queenslandiana</i> subsp. <i>australis</i> , <i>Hexaspora pubescens</i> and <i>Symplocos boonjee</i> . Threatened plant species include: <i>Bubbia queenslandiana</i> subsp. <i>australis</i> , <i>Eidothea zoexylocarya</i> , <i>Hexaspora pubescens</i> , <i>Lepiderema largiflorens</i> , <i>Mammea touriga</i> , <i>Samadera baileyana</i> . Other species of local significance are <i>Symplocos hylandii</i> and <i>Elaeocarpus johnsonii</i> .
<b>Comments:</b>	7.11.29: Occurs on a distinct, sharply undulating landscape. On shallower soils includes sclerophyll sedge and shrubland and fernland communities. Includes perched wetlands. Mainly the Francis Range (Toowalla area south of Mt Bartle Frere).
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 900 ha; Remnant 2021 900 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

### Regional ecosystem 7.11.30

**Description:** Simple notophyll vine forest of *Blepharocarya involucrigeria* (rose butternut). Metamorphics. Not a Wetland. (BVG1M: 5c).

**Short description:** Simple notophyll vine forest of *Blepharocarya involucrigeria* on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M109, Q109

**Subregions:** 9, 8, 7, (4)

**Protected areas:** Daintree NP (CYPAL), Crater Lakes NP, Barron Gorge NP, Gadgarra NP, Wooroonooran NP, Dinden NP, Kuranda NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.30: Although apparently disturbed communities, they appear to be natural disturbance or man-made during pre-European times. From Lake Eacham north to the McDowall Range (Daintree area).

**Estimated extent:**<sup>1</sup> Pre-clearing 500 ha; Remnant 2021 500 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.31

**Description:** *Eucalyptus resinifera* (red mahogany) +/- *Eucalyptus portuensis* (white mahogany) +/- *Syncarpia glomulifera* (turpentine) open forest to woodland (or vine forest with these species as emergents). Metamorphics. Not a Wetland. (BVG1M: 8a).

Vegetation communities in this regional ecosystem include:

7.11.31a: *Syncarpia glomulifera* (turpentine), *Eucalyptus resinifera* (red mahogany), and *Corymbia intermedia* (pink bloodwood), open forest to tall open forest with *Callitris macleayana* and *Allocasuarina torulosa*. Uplands on metamorphics, of the wet rainfall zone. Not a Wetland. (BVG1M: 8a).

7.11.31b: *Syncarpia glomulifera* (turpentine), *Eucalyptus resinifera* (red mahogany), and *Corymbia intermedia* (pink bloodwood), open forest to tall open forest with *Callitris macleayana* and *Allocasuarina torulosa*, and with a very well-developed vine forest understorey. Uplands on metamorphics, of the wet rainfall zone. Not a Wetland. (BVG1M: 8a).

7.11.31c: *Eucalyptus resinifera* (red mahogany), *E. portuensis* (white mahogany), *Corymbia intermedia* (pink bloodwood), *E. cloeziana*, *Syncarpia glomulifera* (turpentine), tall open forest and tall open woodland with *Allocasuarina torulosa* and *Callitris macleayana*. Uplands and highlands on metamorphics, of the moist rainfall zone. Not a Wetland. (BVG1M: 8a).

7.11.31d: *Eucalyptus resinifera* (red mahogany), *E. portuensis* (white mahogany), *Corymbia intermedia* (pink bloodwood), *E. cloeziana*, *Syncarpia glomulifera* (turpentine), tall open forest and tall open woodland with *Allocasuarina torulosa* and *Callitris macleayana*, and with a very well-developed vine forest understorey. Uplands and highlands on metamorphics, of the moist rainfall zone. Not a Wetland. (BVG1M: 8a).

7.11.31e: *Corymbia intermedia* (pink bloodwood), *Syncarpia glomulifera* (turpentine), *Eucalyptus resinifera* (red mahogany), *Eucalyptus granitica* woodland and open forest. Sedimentary rocks. Not a Wetland. (BVG1M: 8a).

**Short description:** *Eucalyptus resinifera* +/- *Eucalyptus portuensis* +/- *Syncarpia glomulifera* open forest to woodland (or vine forest with these species as emergents) on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M70, M70v, M14b, M14bv, S61; Tracey and Webb (1975), 14b

**Subregions:** 7, 9, (8), (4), (5), (9.4)

**Protected areas:** Gadgarra NP, Wooroonooran NP, Daintree NP (CYPAL), Dinden NP, Paluma Range NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.31: Potential habitat for NCA listed species: *Parsonsia wildensis*.

**Comments:** 7.11.31: The development of a dense rainforest sub- canopy is now widespread. This effectively fire proofs this regional ecosystem, preventing the regeneration of *Eucalyptus resinifera*, and therefore threatening the existence of this regional ecosystem. Mostly on the eastern and western sides of the Atherton Tablelands, with scattered occurrences further north and an isolated occurrence on the Seaview Range.  
7.11.31b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.

**Estimated extent:**<sup>1</sup> Pre-clearing 3000 ha; Remnant 2021 3000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.32

**Description:** *Syncarpia glomulifera* (turpentine) and/or *Allocasuarina* spp. (sheoak) +/- heathy understorey, woodland to tall woodland to open forest (or vine forest with these species as emergents). Steep rocky metamorphic slopes with shallow soils. Not a Wetland. (BVG1M: 8a).

Vegetation communities in this regional ecosystem include:

7.11.32a: *Syncarpia glomulifera* (turpentine) and *Corymbia intermedia* (pink bloodwood) woodland with *Allocasuarina littoralis*, *Banksia aquilonia*, *Acacia flavescens* and *Xanthorrhoea johnsonii*. Foothills and uplands on metamorphics, of the moist rainfall zone. Not a Wetland. (BVG1M: 9d).

7.11.32b: *Syncarpia glomulifera*, *Allocasuarina torulosa* and/or *A. littoralis* open forest and woodland. Uplands and highlands, often on steep slopes on metamorphics. Wet rainfall zone. Not a Wetland. (BVG1M: 28e).

7.11.32c: *Syncarpia glomulifera*, *Allocasuarina torulosa* and/or *A. littoralis* open forest and woodland, with a very well-developed vine forest understorey. Uplands and highlands, often on steep slopes on metamorphics, of the wet rainfall zone. Not a Wetland. (BVG1M: 28e).

7.11.32d: Complex of open to closed shrublands, woodland, low woodlands and open forests and grasslands.

Main component: scrub (*Allocasuarina littoralis*, *Syncarpia glomulifera*, *Lophostemon confertus*), shrubland (*Banksia aquilonia*, *Leptospermum* sp.) and heath (*Xanthorrhoea johnsonii*, *Gahnia* spp., *Dicranopteris linearis*).

Mountain rock pavements on metamorphics. Not a Wetland. (BVG1M: 28e).

7.11.32e: *Allocasuarina torulosa*, *Acacia celsa* open forest. Steep rocky mountain slopes on metamorphics. Not a Wetland. (BVG1M: 28e).

7.11.32f: *Allocasuarina littoralis* open forest and woodland. Steep rocky mountain slopes, and ridge tops on metamorphics. Not a Wetland. (BVG1M: 28e).

7.11.32g: *Corymbia intermedia*, *Syncarpia glomulifera*, *Lophostemon confertus* closed forest with *Allocasuarina torulosa* and *Banksia aquilonia*. Uplands and highlands on metamorphics, of the wet to moist rainfall zone. Not a Wetland. (BVG1M: 9d).

7.11.32h: *Lophostemon suaveolens*, *Allocasuarina littoralis*, *Corymbia intermedia*, *Eucalyptus pellita*, *Grevillea glauca*, *Persoonia falcata* and *Xanthorrhoea johnsonii* tall open shrubland. Upper slopes and ridge crests of moist zone on metamorphics. Not a Wetland. (BVG1M: 28e).

7.11.32i: *Lophostemon suaveolens*, *Allocasuarina littoralis*, *Corymbia intermedia*, *Eucalyptus pellita*, *Grevillea glauca*, *Persoonia falcata*, *Banksia aquilonia* and *Xanthorrhoea johnsonii* tall open shrubland. Ridge crests of moist zone on metamorphics. Not a Wetland. (BVG1M: 28e).

<b>Short description:</b>	<i>Syncarpia glomulifera</i> and/or <i>Allocasuarina</i> spp. +/- heathy understorey, woodland to tall woodland to open forest (or vine forest with these species as emergents) on steep rocky metamorphic slopes with shallow soils
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M16f, M13f, Q16f, M120, M67, M67v, Q67, Q67v, Q120, M161, M159, M145 in part (Qld Herbarium and WTMA (2005) M246c), M21 in part (Qld Herbarium and WTMA (2005) M244a), Q21 in part (Qld Herbarium and WTMA (2005) Q244a); Tracey and Webb (1975), 16f, 13f
<b>Subregions:</b>	7, 8, 9
<b>Protected areas:</b>	Gadgarra NP, Wooroonooran NP, Daintree NP (CYPAL), Barron Gorge NP, Macalister Range NP, Little Mulgrave NP, Mowbray NP, Dinden NP, Kuranda NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	7.11.32: Includes areas with a well-developed shrubby/heathy understorey i.e. <i>Xanthorrhoea</i> and <i>Banksia</i> , and areas without shrub/heath understorey. Distinguished from 7.11.6 by its occurrence on steep rocky slopes with shallow soils and its lower stature. Scattered along the ranges north from about Innisfail. 7.11.32c: Well-developed vine forest understorey is probably a condition state caused by infrequent burning. 7.11.32d: Minor components: 13f and 16f. (Webb and Tracey).
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 2000 ha; Remnant 2021 2000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

### Regional ecosystem 7.11.33

**Description:** Eucalyptus reducta (Queensland stringybark) open forest to woodland. Metamorphics. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.11.33a: Eucalyptus reducta open forest to woodland. Metamorphics. Not a Wetland. (BVG1M: 9d).

7.11.33b: Eucalyptus reducta open forest to woodland. Sedimentary rocks. Not a Wetland. (BVG1M: 9d).

7.11.33c: Eucalyptus reducta and Syncarpia glomulifera open forest to tall open forest and woodland.

Metamorphics. Not a Wetland. (BVG1M: 9d).

**Short description:** Eucalyptus reducta open forest to woodland on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M30, S30, M58

**Subregions:** 9, 8, 4, (7), (9.3)

**Protected areas:** Daintree NP (CYPAL), Mount Windsor NP, Ngalba-bulal NP (CYPAL), Kuranda NP, Mount Lewis NP, Kuranda West FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.33: Subject to timber harvesting across its range. Central and western ranges north from the Atherton Tablelands.

**Estimated extent:**<sup>1</sup> Pre-clearing 3000 ha; Remnant 2021 3000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.34

**Description:** Complex of shrublands, low heathy or shrubby woodland and low open forest, with *Corymbia tessellaris* (Moreton Bay ash) and *C. intermedia* (pink bloodwood) or *Melaleuca viridiflora* (broad leaf tea tree), *Allocasuarina* spp. (sheoaks) and *Acacia* spp. (wattles). Metamorphic coastal headlands and islands. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.11.34a: Woodland, low woodland, low open forest and shrubland with *Corymbia tessellaris*, *C. intermedia*, *Lophostemon suaveolens*, *Eucalyptus platyphylla*, *Melaleuca viridiflora*, *Acacia crassicarpa*, *A. flavescens*, *A. celsa*, *A. polystachya*, *Dillenia alata*, *Atractocarpus sessilis*, and *Cyclophyllum coprosmoides*. Steep exposed metamorphic coastal headlands and hillslopes. Not a Wetland. (BVG1M: 9c).

7.11.34b: *Corymbia dallachiana* and *C. tessellaris* grassy woodland to low woodland and grassy open woodland. Metamorphic coastal headlands and hillslopes. Not a Wetland. (BVG1M: 9c).

7.11.34c: Closed scrub, open shrubland and grassland complex of coastal headlands with *Melaleuca viridiflora*, *Allocasuarina littoralis*, *Casuarina equisetifolia*, *Lophostemon suaveolens*, *Acacia holosericea*, *A. polystachya*, *Lophostemon grandiflorus*, *A. calyculata*, *Thryptomene oligandra*, *Pittosporum ferrugineum*, *Xanthorrhoea johnsonii* and *Alyxia spicata*. Metamorphic coastal headlands. Not a Wetland. (BVG1M: 32b).

7.11.34d: Bare rock on coastal headlands. Metamorphics. Not a Wetland. (BVG1M: 29a).

**Short description:** Complex of shrublands, low heathy or shrubby woodland and low open forest, with *Corymbia tessellaris* and *C. intermedia* or *Melaleuca viridiflora*, *Allocasuarina* spp. and *Acacia* spp. on metamorphic coastal headlands and islands

**Supplementary descriptions:** Stanton and Stanton (2005), M104, Q104, M187, M275, M260a in part (Qld Herbarium and WTMA (2005) M260ab)

**Subregions:** 9, 3.2, (3)

**Protected areas:** Annan River (Yuku Baja-Muliku) RR, Daintree NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Ngababulal NP (CYPAL), Mount Cook NP, Hope Islands NP (CYPAL), Hull River NP, Archer Point CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.34: The Lugger Point area may soon be threatened by development activities. Coastal margin from Cardwell north.

7.11.34d: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.

**Estimated extent:**<sup>1</sup> Pre-clearing 700 ha; Remnant 2021 700 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.35

**Description:** *Eucalyptus portuensis* (white mahogany) +/- *Corymbia citriodora* (lemon-scented gum) woodland to open forest. Metamorphics. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.11.35a: *Eucalyptus portuensis*, *E. drepanophylla*, *Corymbia intermedia*, *C. citriodora*, *Lophostemon suaveolens* woodland to low woodland with *Melaleuca viridiflora*, *Acacia flavescens* and *Allocasuarina littoralis*. Uplands and highlands on metamorphics, of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

7.11.35b: *Eucalyptus portuensis*, *E. drepanophylla*, *Corymbia intermedia*, *C. citriodora*, *Lophostemon suaveolens* woodland to low woodland with *Melaleuca viridiflora*, *Acacia flavescens* and *Allocasuarina littoralis*. Uplands and highlands on sedimentary rocks, of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

7.11.35c: *Corymbia citriodora*, *Eucalyptus portuensis*, *C. intermedia*, *Syncarpia glomulifera* woodland to low woodland to open forest with *Callitris intratropica*, *Acacia calyculata* and *Xanthorrhoea johnsonii*. Uplands and highlands on metamorphics, of the moist and dry rainfall zone. Not a Wetland. (BVG1M: 10b).

7.11.35d: *Corymbia citriodora*, *Eucalyptus portuensis*, *C. intermedia*, *Syncarpia glomulifera* woodland to low woodland to open forest with *Callitris intratropica*, *Acacia calyculata* and *Xanthorrhoea johnsonii*. Uplands and highlands on sedimentary rocks, of the moist and dry rainfall zone. Not a Wetland. (BVG1M: 10b).

<b>Short description:</b>	<i>Eucalyptus portuensis</i> +/- <i>Corymbia citriodora</i> woodland to open forest on metamorphics
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), M16i, S16i, Q16m, M16m, CM16m, S16m; Tracey and Webb (1975), 16i, 16m
<b>Subregions:</b>	8, 9, (9.3), (4), (5), (7), (3.2), (9.4)
<b>Protected areas:</b>	Kuranda NP, Dinden West FR, Kuranda West FR, Mount Windsor NP, Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL), Mount Lewis NP, Bare Hill CP, Dinden NP, Kuranda FR, Davies Creek NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.11.35: Potential habitat for NCA listed species: <i>Zieria obovata</i> .
<b>Comments:</b>	7.11.35: Distinguished from 7.11.16 by a tendency to occur in drier, more western zones and by the common presence of <i>Corymbia citriodora</i> , whereas 7.11.16 occurs in wetter areas and has either pure stands of <i>E. portuensis</i> or a co-dominance of <i>C. intermedia</i> . Western ranges of the entire length of the bioregion.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 19000 ha; Remnant 2021 17000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	Under review

## Regional ecosystem 7.11.36

**Description:** *Allocasuarina littoralis* (black sheoak), *Corymbia intermedia* (pink bloodwood), *Lophostemon suaveolens* (swamp mahogany), *Xanthorrhoea johnsonii* (grasstree) shrubland. Serpentine foothills, with deep red soils. Not a Wetland. (BVG1M: 28e).

**Short description:** *Allocasuarina littoralis*, *Corymbia intermedia*, *Lophostemon suaveolens*, *Xanthorrhoea johnsonii* shrubland on serpentine foothills with deep red soils

**Supplementary descriptions:** Stanton and Stanton (2005), M94

**Subregions:** 3

**Protected areas:** Basilisk Range NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.36: Has a dense layer of *Xanthorrhoea johnsonii*. Distinguished from other ecosystems with similar species dominance by its occurrence on serpentine. Basilisk Range only, north of El Arish.

**Estimated extent:**<sup>1</sup> Pre-clearing 300 ha; Remnant 2021 300 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by residential development.

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## Regional ecosystem 7.11.37

**Description:** *Eucalyptus drepanophylla* (ironbark) and *Corymbia clarksoniana* (Clarkson's bloodwood) or *C. erythrophloia* (red bloodwood) woodland to open forest. Uplands on metamorphics, of the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

Vegetation communities in this regional ecosystem include:

7.11.37a: *Eucalyptus drepanophylla* and *Corymbia clarksoniana* woodland, low woodland and open forest with *Acacia* spp. Uplands on metamorphics, of the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

7.11.37b: *Eucalyptus drepanophylla* and/or *Eucalyptus granitica* and *Corymbia erythrophloia* woodland, low woodland and open forest. Uplands on metamorphics, of the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

**Short description:** *Eucalyptus drepanophylla* and *Corymbia clarksoniana* or *C. erythrophloia* woodland to open forest on dry uplands on metamorphics between Tolga and Mount Molloy

**Supplementary descriptions:** Stanton and Stanton (2005), M49, M69

**Subregions:** 8, (9.3), (7)

**Protected areas:** Dinden NP, Kuranda West FR, Dinden West FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.37: Occurs between Tolga and Mount Molloy.

**Estimated extent:**<sup>1</sup> Pre-clearing 400 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.38

**Description:** *Lophostemon confertus* (brush box) low woodland to low closed forest +/- *Acacia celsa* (brown salwood), *Syncarpia glomulifera* (turpentine) and *Allocasuarina* spp. (sheoaks). Steep metamorphic slopes. Not a Wetland. (BVG1M: 28e).

Vegetation communities in this regional ecosystem include:

7.11.38a: Low woodland, open forest, closed forest, or mosaics of all three with *Lophostemon confertus*, *Alstonia muelleriana*, *Acacia celsa*, *Syncarpia glomulifera*, *Callitris macleayana*, *Allocasuarina littoralis*, *A. torulosa*, *Corymbia intermedia* and a range of vine forest species. Generally occupying steep slopes where its structure can vary widely according to the degree of slope and depth of soil. Not a Wetland. (BVG1M: 28e).

7.11.38b: *Lophostemon confertus* low closed forest to closed forest. Steep metamorphic slopes. Not a Wetland. (BVG1M: 28e).

7.11.38c: Bare rock of steep metamorphic slopes and rock platforms, on metamorphics associated with *Lophostemon confertus* (brush box) low woodland to low closed forest +/- *Acacia celsa* (brown salwood), *Syncarpia glomulifera* (turpentine) and *Allocasuarina* spp. (sheoaks). Steep metamorphic slopes and rock platforms. Not a Wetland. (BVG1M: 29b).

**Short description:** *Lophostemon confertus* low woodland to low closed forest +/- *Acacia celsa*, *Syncarpia glomulifera* and *Allocasuarina* spp. on steep metamorphic slopes

**Supplementary descriptions:** Stanton and Stanton (2005), M110, M65, Q65, Q260a in part (Qld Herbarium and WTMA (2005) Q260ac)

**Subregions:** 7, 8

**Protected areas:** Wooroonooran NP, Gadgarra NP, Dinden NP, Barron Gorge NP, Dinden CP, Kuranda NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.38: Potential habitat for NCA listed species: *Parsonsia wildensis*.

**Comments:** 7.11.38: Where rock is close to the surface may be occupied by pure *Lophostemon confertus*. Generally occupies steep slopes. Structure varies according to slope and depth of soil. Currently mapped on the ranges from Innisfail to Cairns.

7.11.38c: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.

**Estimated extent:**<sup>1</sup> Pre-clearing 800 ha; Remnant 2021 800 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.39

**Description:** Themeda triandra (kangaroo grass), or Imperata cylindrica (blady grass), Sorghum nitidum (sorghum) and Mnesithea rottboellioides (northern canegrass) closed tussock grassland. Metamorphic headlands and near-coastal hills. Not a Wetland. (BVG1M: 32b).

Vegetation communities in this regional ecosystem include:

7.11.39a: Grassland dominated by Themeda triandra in the Black Mountain area. Metamorphics. Not a Wetland. (BVG1M: 32b).

7.11.39b: Grassland dominated by Themeda triandra in areas other than Black Mountain. Metamorphics. Not a Wetland. (BVG1M: 32b).

7.11.39c: Imperata cylindrica, Sorghum nitidum and Mnesithea rottboellioides grassland. Metamorphic hillslopes. Not a Wetland. (BVG1M: 32b).

**Short description:** Themeda triandra, or Imperata cylindrica, Sorghum nitidum and Mnesithea rottboellioides closed tussock grassland of metamorphic headlands and near-coastal hills

**Supplementary descriptions:** Stanton and Stanton (2005), M59 in part (Qld Herbarium and WTMA (2005) M267a), Q59, M86

**Subregions:** 9, 3, (7), (8)

**Protected areas:** Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Hope Islands NP (CYPAL), Eubenangee Swamp NP, Russell River NP, Moresby Range NP, Mowbray NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.39: A very rare ecosystem. A remnant in Eubenangee Swamp National Park (hill with walking track and look-out) remains in excellent condition but requires constant vigilant weed management.

**Comments:**

**Estimated extent:**<sup>1</sup> Pre-clearing 60 ha; Remnant 2021 50 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by weed invasion.

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## Regional ecosystem 7.11.40

**Description:** Complex of sclerophyll communities dominated by *Syncarpia glomulifera* (turpentine), or *Melaleuca* spp. (tea tree), or sedges, or ferns, or microphyll vine forest with *Trochocarpa bellendenkerensis*. Uplands and highlands, on quartzite or associated metamorphics, of the very wet rainfall zone. Contains Palustrine. (BVG1M: 28e).

Vegetation communities in this regional ecosystem include:

7.11.40a: *Melaleuca quinquenervia* woodland to open forest and shrubland. Highlands, on quartzite or associated metamorphics, of the very wet rainfall zone. Palustrine. (BVG1M: 22a).

7.11.40b: *Syncarpia glomulifera* and *Melaleuca quinquenervia* open forest. Seasonal swamp of upland hillslopes. Palustrine. (BVG1M: 22b).

7.11.40c: Closed sedgeland with emergent shrubs of *Melaleuca quinquenervia* and *Banksia robur*. Highlands, on quartzite or associated metamorphics, of the very wet rainfall zone. Palustrine. (BVG1M: 34f).

7.11.40d: *Melaleuca viridiflora* woodland. Highlands, on quartzite or associated metamorphics, of the very wet rainfall zone. Palustrine. (BVG1M: 21a).

7.11.40e: Simple notophyll vine forest with *Acacia celsa* forming more than one third of the canopy. Sharply broken topography on metamorphics. Not a Wetland. (BVG1M: 5d).

7.11.40f: Microphyll Vine Thicket with *Trochocarpa bellendenkerensis*, *Uromyrtus tenella*, *Rhodomyrtus macrocarpa*, *Placospermum coriaceum*, *Musgravea stenostachya*, and *Acacia celsa*. Steep metamorphic scree slopes of upland and highland areas. Not a Wetland. (BVG1M: 6b).

7.11.40g: Sedgeland-shrubland complexes with emergent shrubs, fernland with emergent shrubs, shrublands, and low woodlands with *Allocasuarina littoralis*, *Melaleuca quinquenervia*, *Rhodomyrtus sericea*, *Melastoma malabathricum* subsp. *malabathricum*, *Gahnia sieberiana*, *Schoenus sparteus*, *Ischaemum australe*, *Dianella* sp., *Drosera* sp. Uplands on metamorphics in the Thornton Range area. Very wet rainfall zone. Palustrine. (BVG1M: 34f).

7.11.40h: Closed fernland with *Gleichenia dicarpa*, *Gahnia sieberiana*, *Palhinhaea cernua*, *Pseudolycopodium densum*, *Smilax glycyphylla*, *Hibbertia scandens*. Emergent shrubs of *Myrsine achradifolia*, *Acronychia chooreechillum*, *Rhodomyrtus sericea*, *Uromyrtus metrosideros*, *Hypsophila halleyana*, *Trochocarpa* sp. High mountain summits on metamorphics. Palustrine. (BVG1M: 34f).

7.11.40i: Bare rock. Highlands, on quartzite or associated metamorphics in the Thornton Range area. Very wet rainfall zone. Not a Wetland. (BVG1M: 29b).

<b>Short description:</b>	Complex of sclerophyll communities dominated by <i>Syncarpia glomulifera</i> or <i>Melaleuca</i> spp., or sedges, or ferns, or microphyll vine forest with <i>Trochocarpa bellendenkerensis</i> on highlands, on quartzite or associated metamorphics
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A229, A230, Q229, M229, Q33, M33, Q78, M178, M188, M162 in part (Qld Herbarium and WTMA (2005) M266b), Q162 in part (Qld Herbarium and WTMA (2005) Q266b), M158, Q260a in part (Qld Herbarium and WTMA (2005) Q260ab)
<b>Subregions:</b>	9
<b>Protected areas:</b>	Daintree NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.11.40: Potential habitat for NCA listed species: <i>Hedyotis novoguineensis</i> .
<b>Comments:</b>	7.11.40: Western edge of Thornton Range, north of the Daintree River. 7.11.40i: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 600 ha; Remnant 2021 600 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.11.41

**Description:** Melaleuca viridiflora (broad leaf tea tree), M. monantha, Acacia flavescens (yellow wattle), and Grevillea spp. shrubland, with emergent Corymbia clarksoniana (Clarkson's bloodwood), or open woodland of Eucalyptus drepanophylla (ironbark) with M. monantha or Callitris intratropica. Metamorphics. Not a Wetland. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

7.11.41a: Melaleuca viridiflora, M. monantha, Acacia flavescens, Grevillea glauca, G. mcgillivrayi, Petalostigma pubescens, Corymbia clarksoniana, C. dallachiana, Eucalyptus crebra, E. portuensis, Allocasuarina littoralis, Hakea benthamii and Xanthorrhoea johnsonii shrubland to low woodland. Metamorphics. Not a Wetland. (BVG1M: 21a).

7.11.41b: Eucalyptus drepanophylla and Melaleuca monantha low woodland. Soils of impeded drainage on rocky metamorphic hillslopes. Not a Wetland. (BVG1M: 13c).

7.11.41c: Eucalyptus drepanophylla open woodland with a dense sub-canopy of Callitris intratropica. Western margins on metamorphics. Dry rainfall zone. Not a Wetland. (BVG1M: 13c).

**Short description:** Melaleuca viridiflora, M. monantha, Acacia flavescens and Grevillea spp. Shrubland with emergent Corymbia clarksoniana, or open woodland of Eucalyptus drepanophylla with M. monantha or Callitris intratropica, on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M205, M127, M280

**Subregions:** 8

**Protected areas:** Dinden West FR, Kuranda West FR, Kuranda NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.41: Threatened by residential development. From Davies Creek area northwards towards Mount Molloy (western edge of bioregion).

**Estimated extent:**<sup>1</sup> Pre-clearing 700 ha; Remnant 2021 500 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.42

**Description:** *Eucalyptus tereticornis* (forest red gum), *Pandanus* sp. (screw palm), *Lophostemon suaveolens* (swamp mahogany), *Melaleuca dealbata* (cloudy tea tree) and *E. pellita* (red stringybark) woodland to open forest. Fine peaty sands/muds of perched drainage areas on peats on metamorphic rocks. Riverine. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.11.42a: *Eucalyptus tereticornis*, *Corymbia clarksoniana*, *E. pellita*, *Lophostemon suaveolens*, *Melaleuca dealbata*, *Melaleuca viridiflora*, *Pandanus* sp. woodland to low woodland to open forest. Perched drainage areas on peats on metamorphic rocks. Riverine. (BVG1M: 9c).

7.11.42b: *Eucalyptus tereticornis*, *Corymbia clarksoniana*, *E. pellita*, *Lophostemon suaveolens*, *Melaleuca dealbata*, *Melaleuca viridiflora*, *Pandanus* sp. woodland to low woodland to open forest. Perched drainage areas on peats - alluvial component. Riverine. (BVG1M: 9c).

**Short description:** *Eucalyptus tereticornis*, *Pandanus* sp., *Lophostemon suaveolens*, *Melaleuca dealbata* and *E. pellita* woodland to open forest of perched drainage areas on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M39, A39

**Subregions:** 8

**Protected areas:** Mowbray NP, Kuranda West FR

**Extent in reserves:** Low

**Wetland:** Riverine

**Special values:**

**Comments:** 7.11.42: From the Barron River north to Julatten, particularly the Spring Valley area.

**Estimated extent:**<sup>1</sup> Pre-clearing 400 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem subject to weed invasion (e.g. pines), and hydrological changes due to plantation activities, also rainforest invasion.

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## Regional ecosystem 7.11.43

**Description:** *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *C. tessellaris* (Moreton Bay ash) open forest to woodland. Metamorphic coastal lowlands and foothills. Not a Wetland. (BVG1M: 9c).

**Short description:** *Corymbia clarksoniana* +/- *C. tessellaris* open forest to woodland on metamorphic coastal lowlands and foothills

**Supplementary descriptions:** Stanton and Stanton (2005), Q144, M144

**Subregions:** 1

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.43: Distinguished from 7.11.19 by the dominance of *Corymbia clarksoniana* instead of *C. intermedia* (usually lower altitude and/or drier zones than 7.11.19). Distinguished from 7.11.51 by the common co-dominance of *C. tessellaris* rather than *E. drepanophylla*. Herbert Valley - Helens Hill/Mt Poverty area.

**Estimated extent:**<sup>1</sup> Pre-clearing 800 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem, threatened by clearing, vine forest invasion, and weed invasion.

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## Regional ecosystem 7.11.44

**Description:** *Eucalyptus tereticornis* (forest red gum) open forest to woodland. Coastal metamorphic foothills. Not a Wetland. (BVG1M: 9c).

**Short description:** *Eucalyptus tereticornis* open forest to woodland on coastal metamorphic foothills

**Supplementary descriptions:** Stanton and Stanton (2005), M32, CM32

**Subregions:** 9, 8, 7, (3), (5), (4), (9.3), (3.2)

**Protected areas:** Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL), Kuranda NP, Macalister Range NP, Little Mulgrave NP, Wooroonooran NP, Mowbray NP, Dinden NP, Mount Windsor NP, Gadgarra NP, Annan River (Yuku Baja-Muliku) NP, Barron Gorge NP, Kuranda West FR, Kuranda FR, Mount Whitfield CP, Dinden CP, Mount Lewis NP, Smithfield CP, Dinden West FR, Macalister Range FR, Barron Gorge FR, Mount Peter CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.44: Potential habitat for NCA listed species: *Randia audasii*.

**Comments:** 7.11.44: Can include some ironbark (*granitica*) in places. Widespread across ranges mainly north of the Atherton Tablelands. Some weed invasion and some areas have been logged in the past.

**Estimated extent:**<sup>1</sup> Pre-clearing 10000 ha; Remnant 2021 9000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.45

**Description:** *Eucalyptus cloeziana* (Gympie messmate) open forest. Metamorphics. Not a Wetland. (BVG1M: 9d).

**Short description:** *Eucalyptus cloeziana* open forest on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M139

**Subregions:** 9, (3.2)

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.45: Restricted to the ranges adjacent to Helenvale, far north of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 100 ha; Remnant 2021 100 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Under review

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## Regional ecosystem 7.11.46

**Description:** *Eucalyptus portuensis* (white mahogany) open forest, often with *Corymbia nesophila* (Melville Island bloodwood). Near coastal metamorphic foothills north of the Daintree River. Not a Wetland. (BVG1M: 9d).

**Short description:** *Eucalyptus portuensis* open forest, often with *Corymbia nesophila*, on near-coastal metamorphic foothills north of the Daintree River

**Supplementary descriptions:** Stanton and Stanton (2005), M170, Q170

**Subregions:** 9, 9.3, (3.2)

**Protected areas:** Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.46: Occurs on siliceous sands with surface rock in places. Near-coastal, undulating to steep foothills. Mainly Wujal Wujal and the Cowie Point areas north of the Daintree River.

**Estimated extent:**<sup>1</sup> Pre-clearing 800 ha; Remnant 2021 800 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.47

**Description:** *Corymbia nesophila* open forest. Moderate to steep metamorphic slopes. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* open forest on moderate to steep metamorphic slopes

**Supplementary descriptions:** Stanton and Stanton (2005), M181; Tracey and Webb (1975), 16k

**Subregions:** 9

**Protected areas:** Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.47: Orchids of local significance are *Cooktownia robertsii*.

**Comments:** 7.11.47: Medium to tall open forest of *Corymbia nesophila*. Tends to be higher in the landscape and on steeper slopes and higher fertility than 7.11.20. Threatened by rainforest spp. and *Acacia* invasion. Central and western parts of the bioregion north of Daintree.

**Estimated extent:**<sup>1</sup> Pre-clearing 3000 ha; Remnant 2021 3000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.48

**Description:** *Melaleuca viridiflora* (broad leaf tea tree) +/- *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Eucalyptus platyphylla* (poplar gum) woodland to open forest. Metamorphics. Not a Wetland. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

7.11.48a: *Melaleuca viridiflora* woodland. Metamorphics. Not a Wetland. (BVG1M: 21a).

7.11.48b: *Melaleuca viridiflora* woodland to open forest with emergents or sparse upper stratum of eucalypts including *Corymbia clarksoniana*, *Eucalyptus platyphylla*, *Lophostemon suaveolens* and *E. drepanophylla*. Metamorphics. Not a Wetland. (BVG1M: 21a).

**Short description:** *Melaleuca viridiflora* +/- *Corymbia clarksoniana* +/- *Eucalyptus platyphylla* woodland to open forest on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M41, M78

**Subregions:** 8, 9

**Protected areas:** Kuranda West FR, Daintree NP (CYPAL), Kuranda NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.48: Scattered across the ranges, mapped only north of Cairns.

**Estimated extent:**<sup>1</sup> Pre-clearing 300 ha; Remnant 2021 200 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem, threatened by road widening and grazing.

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## Regional ecosystem 7.11.49

**Description:** *Eucalyptus leptophleba* (Molloy red box), *Corymbia clarksoniana* (Clarkson's bloodwood) and *E. platyphylla* open forest to woodland. Moist metamorphic foothills. Not a Wetland. (BVG1M: 9b).

**Short description:** *Eucalyptus leptophleba*, *Corymbia clarksoniana* and *E. platyphylla* open forest to woodland on metamorphic foothills

**Supplementary descriptions:** Stanton and Stanton (2005), M34; Tracey and Webb (1975), 16h

**Subregions:** 8, 9, (3), (3.2)

**Protected areas:** Macalister Range NP, Mowbray NP, Ngalba-bulal NP (CYPAL), Kuranda NP, Annan River (Yuku Baja-Muliku) NP, Smithfield CP, Annan River (Yuku Baja-Muliku) RR, Daintree NP (CYPAL), Earl Hill CP, Mount Whitfield CP, Macalister Range FR, Kuranda FR, Ngalba Bulal NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.49: Distinguished from 7.11.21 by its occurrence in moister, near-coastal areas and by the absence of species such as *Erythrophleum chlorostachys*, *Melaleuca monantha*, and *Allocasuarina luehmannii*. Earths or podzols. Near-coastal areas north of Cairns. Subject to invasion by molasses grass (*Melinis minutiflora*).

**Estimated extent:**<sup>1</sup> Pre-clearing 4000 ha; Remnant 2021 4000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.50

**Description:** Eucalyptus platyphylla (poplar gum) +/- E. drepanophylla (ironbark) +/- Corymbia spp. (bloodwoods) open woodland to open forest. Metamorphics. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

7.11.50a: Eucalyptus platyphylla, E. drepanophylla, Corymbia intermedia, Lophostemon suaveolens open woodland to open forest. Metamorphics. Not a Wetland. (BVG1M: 9b).

7.11.50b: Eucalyptus platyphylla woodland to open woodland. Metamorphics. Not a Wetland. (BVG1M: 9b).

**Short description:** Eucalyptus platyphylla +/- E. drepanophylla +/- Corymbia spp. open woodland to open forest on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M42, Q16p; Tracey and Webb (1975), 16p

**Subregions:** 1, 9, (8), (3.2)

**Protected areas:** Annan River (Yuku Baja-Muliku) NP, Kuranda West FR, Macalister Range NP, Dinden West FR, Dinden NP, Annan River (Yuku Baja-Muliku) RR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.11.50: Helens Hill/Mt Poverty area (Herbert Valley) and scattered across the ranges north and west of Cairns.

**Estimated extent:**<sup>1</sup> Pre-clearing 600 ha; Remnant 2021 500 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.11.51

**Description:** *Corymbia clarksoniana* (Clarkson's bloodwood) and/or *Eucalyptus drepanophylla* (ironbark) open forest to woodland. Metamorphics. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.11.51a: *Corymbia clarksoniana*, *Eucalyptus tereticornis*, *E. drepanophylla* woodland, low woodland to open forest with *Allocasuarina torulosa*, *Allocasuarina littoralis*, *Lophostemon suaveolens*, *Acacia cincinnata*, *A. flavescens*, *Banksia aquilonia*, *Xanthorrhoea johnsonii*. Metamorphics. Not a Wetland. (BVG1M: 9c).

7.11.51b: *Eucalyptus drepanophylla* woodland. Foothills and uplands on metamorphics, of the moist to dry rainfall zones. Not a Wetland. (BVG1M: 13c).

7.11.51c: *Corymbia clarksoniana* woodland. Metamorphics. Not a Wetland. (BVG1M: 9c).

**Short description:** *Corymbia clarksoniana* and/or *Eucalyptus drepanophylla* open forest to woodland on metamorphics

**Supplementary descriptions:** Stanton and Stanton (2005), M250b, CM250b, Q250b, M150, M226

**Subregions:** 8, 7, 9, (3.2), (3), (1), (9.3), (4)

**Protected areas:** Kuranda NP, Little Mulgrave NP, Kuranda West FR, Mowbray NP, Ngalba-bulal NP (CYPAL), Wooroonooran NP, Mount Windsor NP, Macalister Range NP, Dinden NP, Dinden West FR, Annan River (Yuku Baja-Muliku) RR, Gadgarra NP, Annan River (Yuku Baja-Muliku) NP, Mount Cook NP, Daintree NP (CYPAL), Mowbray CP, Kuranda FR, Macalister Range FR, Keatings Lagoon CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.11.51: Potential habitat for NCA listed species: *Grevillea glossadenia*, *Coleus gratus*.

**Comments:** 7.11.51: Distinguished from 7.11.19 by the dominance of *Corymbia clarksoniana* instead of *C. intermedia* (usually lower altitude and/or drier zones than 7.11.19). Distinguished from 7.11.43 by the common co-dominance of ironbarks rather than *C. tessellaris*. Widespread in drier parts of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 19000 ha; Remnant 2021 16000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Under review

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## Regional ecosystem 7.12.1

**Description:** Simple to complex mesophyll to notophyll vine forest. Moderately to poorly-drained granites and rhyolites of moderate fertility of the moist and wet lowlands, foothills and uplands. Contains Palustrine. (BVG1M: 2a).

Vegetation communities in this regional ecosystem include:

7.12.1a: Mesophyll to notophyll vine forest. Lowlands and foothills of the very wet and wet rainfall zones.

Granite and rhyolite. Not a Wetland. (BVG1M: 2a).

7.12.1b: Mesophyll to notophyll vine forest recovering from disturbance, with *Acacia* spp. canopy or emergents. Lowlands and foothills of the very wet and wet rainfall zones. Granite and rhyolite. Not a Wetland. (BVG1M: 5d).

7.12.1c: Low to medium complex notophyll vine forest with *Flindersia bourjotiana*, *Alstonia muelleriana*, *Grevillea baileyana*, *Cerbera floribunda*, *Franciscodendron laurifolium*, *Austromuellera trinervia*, *Carnarvonia araliifolia*, *Stenocarpus reticulatus*, *Musgravea heterophylla*, *Buckinghamia ferruginiflora*, *Elaeocarpus bancroftii*, and *Beilschmiedia castrisinensis*. Colluvial boulder fields of lowlands and foothills. Not a Wetland. (BVG1M: 2a).

7.12.1d: Mesophyll vine forest with scattered feather palms (*Archontophoenix alexandreae*). Seasonally inundated areas, on granite. Palustrine. (BVG1M: 4a).

7.12.1e: Complex mesophyll vine forest. Lowlands on granitic colluvium, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 1a).

<b>Short description:</b>	Simple to complex mesophyll to notophyll vine forest of moderately to poorly-drained granites and rhyolites of moderate fertility of the moist and wet lowlands, foothills and uplands
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G2a, G2a(a), CG2a(a), G2a(c), CG2a, R2a, R2a(a), CR2a, G72, CG72, G166, CG1c; Tracey and Webb (1975), 2a
<b>Subregions:</b>	7, 6, 9, (5), (3), (2), (8), (1), (4)
<b>Protected areas:</b>	Tully Gorge NP, Girringun NP, Wooroonooran NP, Daintree NP (CYPAL), Girramay NP, Japoon NP, Ngalba-bulal NP (CYPAL), Malbon Thompson FR, Mount Lewis NP, Mount Mackay NP, Hinchinbrook Island NP, Paluma Range NP, Russell River NP, Djiru NP, Kuranda NP, Grey Peaks NP, Mowbray NP, Little Mulgrave NP, Tully Falls NP, Dinden NP, Hull River NP, Clump Mountain NP, Family Islands NP, Macalister Range NP, Gadgarra NP, Brook Islands NP, Goold Island NP, Fitzroy Island NP, Koombooloomba NP, Earl Hill CP, Bare Hill CP, Alcock FR, Daintree NP, Tam O'Shanter FR, Smithfield CP, Danbulla NP, Malbon Thompson CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.12.1: Habitat for threatened plant species including: <i>Actephila foetida</i> , <i>Arytera dictyoneura</i> , <i>Citrus inodora</i> , <i>Cladopus queenslandicus</i> , <i>Cheilocostus potierae</i> , <i>Croton densivestitus</i> , <i>Dansiea elliptica</i> , <i>Diploglottis pedleyi</i> , <i>Drosera adelae</i> , <i>Endiandra anthropophagorum</i> , <i>Phlegmariurus</i> spp., <i>Lepiderema largiflorens</i> , <i>Neostrearia fleckeri</i> and <i>Piper mestonii</i> . Habitat for many plant species endemic to the bioregion. The vegetation community 7.12.1c (G166) harbours many regionally endemic species such as <i>Choriceras majus</i> , <i>Beilschmiedia castrisinensis</i> , <i>Mesua larnachiana</i> , <i>Dissiliaria tuckeri</i> and <i>Buckinghamia ferruginiflora</i> . Endemicity levels and species number decline south of the Tully River. The unusual grass <i>Lophatherum gracile</i> occurs along creeks particularly in the Tully area. It is the only known habitat of <i>Passiflora aurantioides</i> which in Australia is confined to the Babinda-Bellenden Ker area.
<b>Comments:</b>	7.12.1: This is the dominant rainforest regional ecosystem below 400 m on granitic hills and mountains. It occurs on more poorly-drained and lower fertility soils than 7.12.2. Widespread throughout the bioregion. Destructive cyclonic winds and previous logging activities have resulted in much canopy disturbance, usually resulting in a significant <i>Calamus</i> cover.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 124000 ha; Remnant 2021 120000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.2

**Description:** Notophyll or mesophyll vine forest with *Archontophoenix alexandrae* (feather palm) or *Licuala ramsayi* (fan palm). Lower foothills and uplands on granite and rhyolite, with seasonally impeded drainage. Very wet rainfall zone. Palustrine. (BVG1M: 4a).

Vegetation communities in this regional ecosystem include:

7.12.2a: Notophyll to mesophyll forest with *Archontophoenix alexandrae*. Steep upper slopes and gully bottoms of uplands, on granite and rhyolite. Palustrine. (BVG1M: 4a).

7.12.2b: Notophyll to mesophyll vine forest with *Licuala ramsayi* (fan palm). Swamps on seasonally impeded drainage, on granite. Palustrine. (BVG1M: 4a).

7.12.2c: Simple notophyll vine forest with *Licuala ramsayi* (fan palm) and *Pandanus* sp. (screw palm). Swamps of upland areas, on granite. Palustrine. (BVG1M: 4a).

7.12.2d: *Licuala ramsayi* (fan palm), *Archontophoenix alexandrae* (feather palm), *Oraniopsis appendiculata* palm forest. Upland swamps on granite. Palustrine. (BVG1M: 4a).

7.12.2e: Notophyll to mesophyll vine forest with *Archontophoenix alexandrae*. Swamps on granite. Palustrine. (BVG1M: 4a).

<b>Short description:</b>	Notophyll or mesophyll vine forest with <i>Archontophoenix alexandrae</i> or <i>Licuala ramsayi</i> , on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G3b, G227, G3a, G214, R214, A227, (also Qld Herbarium and WTMA (2005) A175, G175); Tracey and Webb (1975), 3b, 3a
<b>Subregions:</b>	7, 9, 2, 1, (6)
<b>Protected areas:</b>	Grey Peaks NP, Daintree NP (CYPAL), Mount Mackay NP, Malbon Thompson FR, Tully Gorge NP, Ngalbulal NP (CYPAL), Girringun NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	7.12.2: Potential habitat for NCA listed species: <i>Gymnostoma australianum</i> .
<b>Comments:</b>	7.12.2: Although freely draining, this regional ecosystem's soils are very wet for much of the year and water tables rarely fall below 2 m. Scattered across the bioregion in areas such as Great Palm Island, May Peak, Mt. Mackay and Thornton Range.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 300 ha; Remnant 2021 300 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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### Regional ecosystem 7.12.3

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Mesophyll rainforest, with *Eucalyptus tereticornis*, *Corymbia tessellaris*, *C. intermedia*, *Acacia celsa* and *A. flavescens* emergents. Typical rainforest species include *Aleurites moluccana*, *Alstonia scholaris*, *Castanospermum australe*, *Cryptocarya mackinnonia*. Occurs on the wet and moist foothills on granitic red earths. Not a Wetland. (BVG1M: 1a).

**Short description:** Mesophyll vine forest with forest red gum (*Eucalyptus tereticornis*) emergents on wet to moist granite foothills

**Supplementary descriptions:** Tracey and Webb (1975), 13d

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.3: A rainforest successional stage leading to complex mesophyll vine forest and mesophyll vine forest in the wet climatic zones, while in the moist climatic zone it is a successional stage leading to a semi-deciduous mesophyll vine forest. Most of the vine f.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 7.12.4

**Description:** *Syncarpia glomulifera* (turpentine) +/- *Eucalyptus pellita* (red stringy bark) open forest. Granites and rhyolites, on deep soils, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 9d).

**Short description:** *Syncarpia glomulifera* +/- *Eucalyptus pellita* open forest of granites and rhyolites on deep soils

**Supplementary descriptions:** Stanton and Stanton (2005), G13e, R13e; Tracey and Webb (1975), 13e

**Subregions:** 6, 7, 5, (2), (8), (1)

**Protected areas:** Girringun NP, Dinden NP, Girramay NP, Hinchinbrook Island NP, Wooroonooran NP, Tully Gorge NP, Grey Peaks NP, Paluma Range NP, Malbon Thompson FR, Hull River NP, Little Mulgrave NP, Macalister Range NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.4: This regional ecosystem often has a rainforest understorey, the height and density of which varies according to how recently this community has been burnt. Most of the rainforest species present are fast-growing secondary species. Occurs on gently sloping foothills and valleys on fairly deep soils (as opposed to 7.12.57 which occurs on shallow soils, and is also distinguished by its shrubland or heathland structure). Widespread across the bioregion, particularly eastern areas.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Under review

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## Regional ecosystem 7.12.5

**Description:** *Eucalyptus pellita* (red stringybark) +/- *Corymbia intermedia* (pink bloodwood) open forest, or *Acacia mangium* (black wattle) and *Lophostemon suaveolens* (swamp mahogany) open forest, (or vine forest with these species as emergents). Granites and rhyolites, of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.12.5a: *Eucalyptus pellita*, *Corymbia intermedia* and *C. tessellaris* open forest with *Acacia celsa*, *A. cincinnata*, *A. mangium* and *A. flavescens*. Very wet and wet rainfall zones, on granite and rhyolite. Not a Wetland. (BVG1M: 9d).

7.12.5b: *Eucalyptus pellita*, *Corymbia intermedia* and *C. tessellaris* open forest with *Acacia celsa*, *A. cincinnata*, *A. mangium* and *A. flavescens*, with a very well-developed vine forest understorey. Very wet and wet rainfall zones. Granite and rhyolite. Not a Wetland. (BVG1M: 9d).

7.12.5c: *Corymbia intermedia*, *Eucalyptus pellita*, *E. tereticornis*, *C. tessellaris* and *C. torelliana*, open forest to woodland with *Acacia celsa*, *A. mangium*, *Lophostemon suaveolens* and *Syncarpia glomulifera*. Wet and moist rainfall zones. Granite and rhyolite. Not a Wetland. (BVG1M: 9c).

7.12.5d: *Corymbia intermedia*, *Eucalyptus pellita*, *E. tereticornis*, *C. tessellaris* and *C. torelliana*, open forest to woodland with *Acacia celsa*, *A. mangium*, *Lophostemon suaveolens* and *Syncarpia glomulifera*, with a very well-developed vine forest understorey. Wet and moist rainfall zones. Granite and rhyolite. Not a Wetland. (BVG1M: 9c).

7.12.5e: *Acacia mangium* and *Lophostemon suaveolens* open forest with emergent *Eucalyptus pellita*, *Corymbia tessellaris*, and *C. intermedia*. Granite hillslopes. Not a Wetland. (BVG1M: 9c).

7.12.5f: *Allocasuarina littoralis*, *A. torulosa*, *Acacia crassicarpa* and *Eucalyptus pellita* open forest. Granite hillslopes. Not a Wetland. (BVG1M: 28e).

7.12.5g: *Eucalyptus pellita* and *Corymbia intermedia* open forest and woodland. Granite hillslopes. Not a Wetland. (BVG1M: 9c).

7.12.5h: *Melaleuca viridiflora*, and *Lophostemon suaveolens* woodland. Poorly drained soils of granite hillslopes. Not a Wetland. (BVG1M: 21a).

7.12.5i: *Imperata cylindrica*, *Sorghum nitidum* and *Mnesithea rottboellioides* grassland. Granite hillslopes. Not a Wetland. (BVG1M: 32b).

<b>Short description:</b>	<i>Eucalyptus pellita</i> +/- <i>Corymbia intermedia</i> open forest, or <i>Acacia mangium</i> and <i>Lophostemon suaveolens</i> open forest (or vine forest with these species as emergents), on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G106, G13a, G13av, CG13a, CG13av, G16b, G16bv, CG16b, R13a, R13av, CR13a, CR13av, R16b, R16bv, G80, G142, CG142, G118, G86; Tracey and Webb (1975), 13a, 16b,
<b>Subregions:</b>	6, 7, 9, 2, (3), (1), (8)
<b>Protected areas:</b>	Girringun NP, Tully Gorge NP, Girramay NP, Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Hinchinbrook Island NP, Grey Peaks NP, Malbon Thompson FR, Mount Mackay NP, Wooroonooran NP, Macalister Range NP, Japoon NP, Hull River NP, Djiru NP, Family Islands NP, Mowbray NP, Kuranda NP, Annan River (Yuku Baja-Muliku) NP, Smithfield CP, Alcock FR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.5: Potential habitat for NCA listed species: <i>Acianthus sublestus</i> , <i>Marsdenia rara</i> .
<b>Comments:</b>	7.12.5: This regional ecosystem often occurs with a vine forest understorey, especially in areas where fire is infrequent. Most of the vine forest species present are fast-growing secondary species. This regional ecosystem may consist of pure stands of <i>E. pellita</i> (usually with a vine forest understorey), or may be more mixed species with <i>E. pellita</i> dominant or co-dominant. Widespread in eastern parts of the bioregion, particularly the Tully/Cardwell area and upper Herbert, the Yarrabah/Gordonvale area, and the Helenvale region. 7.12.5b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning. 7.12.5d: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 12000 ha; Remnant 2021 9000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review

## Regional ecosystem 7.12.6

**Description:** Semi-deciduous mesophyll vine forest. Lowlands and foothills on granites and rhyolites, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 2d).

Vegetation communities in this regional ecosystem include:

7.12.6a: Semi-deciduous mesophyll vine forest. Lowlands and foothills of the moist and dry rainfall zones, on granite and rhyolite. Not a Wetland. (BVG1M: 2d).

7.12.6b: *Terminalia arenicola* and *Acacia polystachya* low closed forest. Lowlands and foothills, of the moist and dry rainfall zones, on rhyolite. Not a Wetland. (BVG1M: 7a).

**Short description:** Semi-deciduous mesophyll vine forest on granites and rhyolites of the moist and dry lowlands and foothills

**Supplementary descriptions:** Stanton and Stanton (2005), R4, G4, R172; Tracey and Webb (1975), 4

**Subregions:** 9, (3.2)

**Protected areas:** Ngalba-bulal NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Kalkajaka NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.6: Potential habitat for NCA listed species: *Dendrobium bigibbum*, *Rhaphidospora cavernarum*.

**Comments:** 7.12.6: Deciduous emergents to 35 m and trees with plank buttressing and surface roots are common. Most of the larger leaf species are deciduous. This regional ecosystem has close affinities with regional ecosystems more common in the Cape York Peninsula bioregion. Only present in Daintree - Bloomfield sub-region, mainly on the Black Trevethan Range. This regional ecosystem tends to be highly susceptible to woody weed invasion, including African tulip tree (*Spathodea campanulata*) and mango (*Mangifera indica*).

**Estimated extent:**<sup>1</sup> Pre-clearing 800 ha; Remnant 2021 800 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.7

**Description:** Simple to complex microphyll to notophyll vine forest, often with *Agathis robusta* (kauri pine) or *A. microstachya* (bull kauri). Granites and rhyolites of foothills and uplands, of the moist rainfall zone. Not a Wetland. (BVG1M: 5c).

Vegetation communities in this regional ecosystem include:

7.12.7a: Complex notophyll vine forests (with emergent *Agathis robusta*). Foothills and uplands on granite and rhyolite north of the Herbert River. Moist rainfall zone. Not a Wetland. (BVG1M: 5c).

7.12.7b: Simple notophyll vine forest with *Pseudoweinmannia lachnocarpa* and emergent *Agathis microstachya*. Uplands of the moist rainfall zone. Rhyolite. Not a Wetland. (BVG1M: 5c).

7.12.7c: Simple notophyll semi-evergreen vine forest. Uplands of the dry rainfall zone. Rhyolite. Not a Wetland. (BVG1M: 5c).

7.12.7d: Microphyll vine-fern forest with *Agathis robusta*. Highlands of the dry rainfall zone. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple to complex microphyll to notophyll vine forest, often with *Agathis robusta* or *A. microstachya*, on granites and rhyolites of moist foothills and uplands

**Supplementary descriptions:** Stanton and Stanton (2005), G6, CG6, R6, R57, R63, G68; Tracey and Webb (1975), 6

**Subregions:** 9, 6, 7, 9.3, 8, (4), (3), (5), (1), (2), (9.6)

**Protected areas:** Ngalba-bulal NP (CYPAL), Girringun NP, Mount Windsor NP, Dinden NP, Kirrama NP, Daintree NP (CYPAL), Little Mulgrave NP, Kuranda NP, Baldy Mountain FR, Tully Gorge NP, Macalister Range NP, Danbulla NP, Bare Hill CP, Hinchinbrook Island NP, Hann Tableland NP, Grey Peaks NP, Gadgarra NP, Danbulla South FR, Mowbray NP, Paluma Range NP, Wooroonooran NP, Orpheus Island NP, Mount Whitfield CP, Little Mulgrave FR, Baldy Mountain CP, Koombooloomba South FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.7: Habitat for threatened plant species including: *Alectryon semicinerus*, *Alpinia hylandii*, *Elaeocarpus coorangooloo*, *Arytera dictyoneura*. *Rhodamnia longisepala* is endemic and confined to this RE on the Windsor Tableland.

**Comments:** 7.12.7: A feature of this regional ecosystem is the large number of tree species shared with the subtropical forests of the Southeast Queensland bioregion. Accordingly, there are very few regional endemics present. Local floristic variations especially within *A. robusta* communities show marked species disjunctions within the bioregion. *A. robusta* does not occur south of the Herbert River and in these areas *Argyrodendron polyandrum* becomes more prominent. Widespread throughout the bioregion. *Agathis robusta* was eagerly sought after by the timber industry. The condition of this RE is dependent upon the past practises of logging, which was variable between forestry districts. *Lantana camara* often forms dense thickets around the margin and invades suitable canopy gaps within the rainforest.

**Estimated extent:**<sup>1</sup> Pre-clearing 15000 ha; Remnant 2021 15000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.12.8

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Complex notophyll vine forests, with emergent *Araucaria bidwillii*. Typical species include *Araucaria bidwillii*, *Athertonia diversifolia*, *Beilschmiedia bancroftii*, *Cyclophyllum coprosmoides*, *Cardwellia sublimis*, *Chionanthus axillaris*, *C. ramiflora*. Occurs on moist uplands on granites. Not a Wetland. (BVG1M: 2a).

**Short description:** Complex notophyll vine forest with emergent bunya pine (*Araucaria bidwillii*) on moist granite uplands on yellow podzolic soils

**Supplementary descriptions:** Tracey and Webb (1975), 6

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.8: This regional ecosystem is characterised by the unusual disjunct populations of bunya pine *Araucaria bidwillii*, which occurs mainly in the Southeast Queensland bioregion. There are only two very small occurrences of this regional ecosystem in the Wet Tropics bioregion -- near Mount Lewis and at Cannabullen Falls.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.9

**Description:** *Acacia celsa* (brown salwood) open forest to closed forest. Foothills, uplands and highlands on granites and rhyolites, of the very wet and wet rainfall zone. Not a Wetland. (BVG1M: 5d).

**Short description:** *Acacia celsa* open forest to closed forest on granites and rhyolites

**Supplementary descriptions:** Stanton and Stanton (2005), R12a, G12a; Tracey and Webb (1975), 12a

**Subregions:** 7, 9, 6, 5, (2), (3.2), (8), (4), (1), (3)

**Protected areas:** Tully Gorge NP, Daintree NP (CYPAL), Girringun NP, Girramay NP, Japoon NP, Paluma Range NP, Ngalbulal NP (CYPAL), Mount Mackay NP, Mount Cook NP, Woornoonoran NP, Mowbray NP, Malbon Thompson FR, Koombooloomba NP, Mount Windsor NP, Grey Peaks NP, Dinden NP, Hinchinbrook Island NP, Kirrama NP, Tully Falls NP, Mount Lewis NP, Tumoulin NP, Baldy Mountain FR, Macalister Range NP, Little Mulgrave NP, Hull River NP, Kuranda NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.9: This is a stable regional ecosystem occurring on exposed, low fertility sites and is not a result of human disturbance. They are usually derived from rainforest communities. Widely distributed throughout the bioregion in higher rainfall areas. This is a long-term transitional regional ecosystem resulting from natural disturbances such as cyclones.

**Estimated extent:**<sup>1</sup> Pre-clearing 5000 ha; Remnant 2021 5000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.10

**Description:** Notophyll vine forest with emergent *Araucaria cunninghamii* (hoop pine). Foothills and uplands on granites and rhyolites of the Seaview and Paluma Ranges. Moist and dry rainfall zones. Not a Wetland. (BVG1M: 5b).

Vegetation communities in this regional ecosystem include:

7.12.10a: Notophyll vine forest with *Araucaria cunninghamii* emergents. Foothills and uplands on granites of the moist rainfall zone. Not a Wetland. (BVG1M: 5b).

7.12.10b: Low notophyll to microphyll vine forest with *Araucaria cunninghamii*. Foothills and uplands on rhyolites, of the moist and dry rainfall zone. Not a Wetland. (BVG1M: 5b).

7.12.10c: Notophyll vine forest with *Araucaria cunninghamii* emergents. Uplands on rhyolites, of the very wet rainfall zone. Not a Wetland. (BVG1M: 5b).

**Short description:** Notophyll vine forest with emergent *Araucaria cunninghamii* of the moist and dry foothills and uplands on granites and rhyolites of the Seaview and Paluma Ranges

**Supplementary descriptions:** Stanton and Stanton (2005), R25, G25, R114, G26, R26; Olsen, 25, 26

**Subregions:** 5, 6, (7), (1), (9.4), (11.1), (9.6)

**Protected areas:** Paluma Range NP, Girringun NP, Tully Gorge NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.10: Habitat for *Parsonsia lenticellata*, a restricted endemic plant species.

**Comments:** 7.12.10: This regional ecosystem has predominantly subtropical affinities and is related to central Queensland regional ecosystems. Accordingly, there are very few regional endemics present if any. Distinguished from 7.12.18 by its overall notophyll composition, and occurs in moister zones than 7.12.18. Species depauperate. Poorly surveyed and poorly known. Confined to the southern portion of the Wet Tropics bioregion, from the Herbert River Gorge south. Common on the Seaview and Paluma ranges, particularly on the escarpments where the water-holding capacity of soils is reduced and/or rainfall is distinctly seasonal. Alterations to regional fire regimes are impacting upon the margins of this ecosystem. *Lantana camara* often forms dense thickets around the margin and invades suitable canopy gaps within the rainforest.

7.12.10b: Occurs in dryer zones than 7.12.10a.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.11

**Description:** Simple to complex notophyll vine forest and semi-evergreen notophyll vine forest. Rocky areas and talus on foothills and uplands on granite and rhyolite. Moist rainfall zone. Not a Wetland. (BVG1M: 5c).

Vegetation communities in this regional ecosystem include:

7.12.11a: Complex notophyll vine forests south of the Herbert River. Foothills and uplands of the moist rainfall zone. Not a Wetland. (BVG1M: 5c).

7.12.11b: Simple notophyll vine forest. Rocky areas including unstable rock talus slopes. Foothills and uplands of the moist rainfall zone. Not a Wetland. (BVG1M: 5c).

7.12.11c: Notophyll semi-evergreen vine forest. Foothills and uplands on granites, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 5c).

7.12.11d: Low notophyll vine forest and thicket. Exposed rocky coastal headlands. Not a Wetland. (BVG1M: 5c).

<b>Short description:</b>	Simple to complex notophyll vine forest and semi-evergreen notophyll vine forest of rocky areas and talus on moist foothills and uplands on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G27, R27, G141, CG141, R141, A141, G212, G6 in part (Qld Herbarium and WTMA (2005) G6a), R6 in part (Qld Herbarium and WTMA (2005) R6a); Olsen: 27
<b>Subregions:</b>	5, 1, (11.1), (3), (6), (2), (3.2), (7), (9.4)
<b>Protected areas:</b>	Paluma Range NP, Girringun NP, Bowling Green Bay NP, Orpheus Island NP, Fitzroy Island NP, Brook Islands NP, Hinchinbrook Island NP, Mount Cook NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.11: Potential habitat for NCA listed species: <i>Arenga australasica</i> , <i>Arytera dictyoneura</i> , <i>Phlegmariurus phlegmarioides</i> .
<b>Comments:</b>	7.12.11: Occurs on steeper, more unstable, rocky sites than 7.12.1. It has structural and floristic affinities with communities found on the eastern escarpment of the Macalister Range. It appears that <i>Agathis robusta</i> is not found in the forests south of the Herbert River until the Fraser Island populations are encountered. This regional ecosystem is found on dry parts of the eastern or northern escarpments of the Seaview and Paluma Ranges.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 17000 ha; Remnant 2021 17000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	Under review

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## Regional ecosystem 7.12.12

**Description:** *Acacia mangium* (black wattle) and *A. celsa* (brown salwood) open forest to closed forest or *A. polystachya* woodland to closed forest. Granite and rhyolite foothills, of the moist rainfall zone. Not a Wetland. (BVG1M: 5d).

Vegetation communities in this regional ecosystem include:

7.12.12a: *Acacia mangium* and *A. celsa* open to closed forest. Lowlands and foothills, of the very wet and wet rainfall zone, on granite and rhyolite. Not a Wetland. (BVG1M: 5d).

7.12.12b: *Acacia polystachya* dominated communities. Mostly closed forest but includes some woodland with a lower layer of vine forest species. Foothills of the moist rainfall zone, on granite. Not a Wetland. (BVG1M: 5d).

7.12.12c: *Acacia polystachya* low woodland. Granite and rhyolite. Not a Wetland. (BVG1M: 5d).

**Short description:** *Acacia mangium* and *A. celsa* open forest to closed forest or *A. polystachya* woodland to closed forest of granite and rhyolite foothills

**Supplementary descriptions:** Stanton and Stanton (1999), G12c, R12c, G40, G47, R47; Tracey and Webb (1975), 12c

**Subregions:** 6, 9, 8, 1, (3), (7), (3.2)

**Protected areas:** Girringun NP, Macalister Range NP, Orpheus Island NP, Girramay NP, Clump Mountain NP, Ngalba-bulal NP (CYPAL), Djiru NP, Annan River (Yuku Baja-Muliku) NP, Mowbray NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.12: These communities occur in areas of natural disturbance, probably derived from sclerophyll communities. Some appear to be quite stable (long term), whilst some areas are the effects of more recent (natural) disturbance. Mainly the Mount Leach Range, Goolboddi (Orpheus) Island and Macalister Range.

**Estimated extent:**<sup>1</sup> Pre-clearing 700 ha; Remnant 2021 700 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.13

**Description:** *Acacia melanoxylon* (blackwood) and *A. celsa* (brown salwood) closed forest. Uplands and highlands on granites and rhyolites, of the cloudy wet rainfall zone. Not a Wetland. (BVG1M: 5d).

**Short description:** *Acacia melanoxylon* and *A. celsa* closed forest of cloudy wet uplands and highlands on granites and rhyolites

**Supplementary descriptions:** Stanton and Stanton (2005) G12d, R12d; Tracey and Webb (1975), 12d

**Subregions:** 5, (6)

**Protected areas:** Paluma Range NP, Kirrama NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.13: This is a stable regional ecosystem resulting from natural disturbances such as cyclones or storms. They are usually derived from rainforest communities. From the Paluma Range north to about Cardwell.

**Estimated extent:**<sup>1</sup> Pre-clearing 500 ha; Remnant 2021 500 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.14

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Notophyll rainforest, with *Eucalyptus grandis*, *Acacia melanoxylon* and *A. celsa* emergents. Typical vine forest species include *Alphitonia petriei*, *Alstonia muelleriana*, *Flindersia pimenteliana*, *Litsea leefeana*, *Melicope micrococca*. Occurs on wet and cloudy wet upland ridges on xanthozems and yellow earths derived from granites and acid volcanics. Not a Wetland. (BVG1M: 5).

**Short description:** Notophyll vine forest with rose gum (*Eucalyptus grandis*) emergents on cloudy wet granite and rhyolite upland ridges

**Supplementary descriptions:** Tracey and Webb (1975), 13c

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.14: This regional ecosystem results from permanent rainforest species encroachment on *Eucalyptus grandis* forest in the absence of fire. This conversion of open forest to rainforest is considered by many to threaten the long-term survival of the open *Eucalyptu*. Wet Tropics bioregion. Forms a narrow fringing ecosystem adjacent to simple notophyll vine forests on the Lamb Range, Hugh Nelson Range, Koombooloomba-Kirrama areas. It is also found on ridges among mesophyll vine forests in the Mulgrave River valley west. This rainforest transitional ecosystem is of recent development (mostly within the last 30 years) and is a result of changes to regional fire regimes. *Eucalyptus grandis* emergents average 45 m and reach 55 m in gullies. The rainforest understorey is uneven.

**Estimated extent:**<sup>1</sup>

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.12.15

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Notophyll rainforests, with *Syncarpia glomulifera*, *Corymbia intermedia*, *Lophostemon confertus*, *Allocasuarina torulosa* and *Banksia integrifolia* emergents and co dominants. Typical vine forest species include *Cyclophyllum coprosmoides*. Occurs on wet to moist uplands and highlands on yellow earths derived from granitic parent material. Not a Wetland. (BVG1M: 5).

**Short description:** Notophyll vine forest with turpentine (*Syncarpia glomulifera*) emergents on wet to moist, granite uplands and highlands

**Supplementary descriptions:** Tracey and Webb (1975), 13f

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.15: This is an unstable transitional regional ecosystem, fluctuating between mesophyll vine forest and simple notophyll vine forest in the absence of fire to a low or medium woodland in the presence of frequent fires.

**Estimated extent:**<sup>1</sup>

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.12.16

**Description:** Simple to complex notophyll vine forest, including small areas of *Araucaria bidwillii* (Bunya pine). Uplands and highlands on granites and rhyolites, of the cloudy wet to moist rainfall zones. Not a Wetland. (BVG1M: 6b).

Vegetation communities in this regional ecosystem include:

7.12.16a: Simple notophyll vine forest on wet and moist uplands, granite and rhyolite. Uplands of the cloudy wet to moist rainfall zones. Granite and rhyolite. Not a Wetland. (BVG1M: 6b).

7.12.16b: Simple notophyll vine forest (often with *Agathis microstachya*) recovering from disturbance, with *Acacia celsa* canopy or emergents. Uplands of the cloudy wet to moist rainfall zones. Not a Wetland. (BVG1M: 5d).

7.12.16c: Simple notophyll vine forest with emergent Bunya pines (*Araucaria bidwillii*). Granite mountain slopes. Not a Wetland. (BVG1M: 5c).

**Short description:** Simple to complex notophyll vine forest, including small areas of *Araucaria bidwillii*, of cloudy wet and moist uplands and highlands on granites and rhyolites

**Supplementary descriptions:** Stanton and Stanton (2005), G8, G8(a), CG8, R8, R8(a), G262; Tracey and Webb (1975), 8

**Subregions:** 6, 7, 9, 5, (4), (11.1), (9.3), (3.2), (8), (2), (3)

**Protected areas:** Girringun NP, Wooroonooran NP, Koombooloomba NP, Tully Gorge NP, Daintree NP (CYPAL), Paluma Range NP, Mount Windsor NP, Kirrama NP, Tully Falls NP, Mount Lewis NP, Girramay NP, Dinden NP, Danbulla NP, Ngalba-bulal NP (CYPAL), Herberton Range NP, Japoon NP, Little Mulgrave NP, Bowling Green Bay NP, Baldy Mountain FR, Gadgarra NP, Maalan NP, Malbon Thompson FR, Mount Spurgeon NP, Hann Tableland NP, Hinchinbrook Island NP, Grey Peaks NP, Mount Hypipamee NP, Mount Cook NP, Herberton Range CP, Kuranda NP, Tumoulin NP, Ravenshoe FR 1, Koombooloomba CP, Macalister Range NP, Mount Mackay NP, Tully Falls FR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.16: Habitat of threatened plant species including: *Albizia* sp. (Windsor Tableland B.Gray 2181), *Argophyllum cryptophlebium*, *Ctenopteris walleri*, *Eidothea zoexylocarya*, *Elaeocarpus thelmae*, *Endiandra jonesii*, *Endiandra phaeocarpa*, *Helicia grayi*, *Helicia lewisensis*, *Phlegmariurus* spp., *Diteilis simmondsii*, *Litsea granitica*, *Phaleria biflora*, *Stenocarpus davallioides*, *Symplocos graniticola* and *Xylosma* sp. (Mt Lewis G.Sankowsky+ 1108). Habitat for near threatened plant species *Aceratium ferrugineum*, *Aglaia brassii*, *Austrobuxus megacarpus*, *Bubbia queenslandiana* subsp. *queenslandiana*, *Glochidion pungens*, *Goodyera viridiflora*, *Diospyros granitica*, *Polyalthia submontana* subsp. *submontana*, *Helicia recurva*, *Medicosma glandulosa*, *Pectinopitys ladei*, *Pteridoblechnum acuminatum*, *Sarcopteryx montana*, *Symplocos ampulliformis* and *Wendlandia connata*. Habitat of many endemic species of fauna and flora. Other species of local significance include *Diospyros hemicycloides*, *Elaeocarpus johnsonii*, *Solanum dimorphispinum* and *Stegantthera cooperorum*.

**Comments:** 7.12.16: Widespread regional ecosystem of upland areas. Most accessible areas have been logged to varying degrees in the past. Rampant *Calamus* spp. growth is characteristic following disturbance. Even canopy to 35 m with only the occasional emergent or strangler fig. Leaves are mostly notophyll but the proportion of microphylls increases with altitude. Woody lianas and deciduous species are uncommon. Ground ferns and tree ferns are common, broad-leaved herbs are uncommon and confined to wet gullies and large canopy gaps. Most accessible areas have been logged to varying degrees in the past. Occurs at higher altitudes and wetter zones than 7.12.1. Regionally endemic species levels declines south of the Tully River. Locally endemic species are virtually non-existent south of the Tully River. Southern limit of many regionally endemics is the southern end of the Paluma Range. Substantial floristic variations occur north and south of the Black Mountain Gap/Corridor. Most accessible areas have been logged to varying degrees in the past.

7.12.16b: In southern subregions.

**Estimated extent:**<sup>1</sup> Pre-clearing 242000 ha; Remnant 2021 230000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 7.12.17

**Description:** *Corymbia torelliana* (cadaghi) open forest usually with a well-developed simple notophyll vine forest element. Granites and rhyolites. Not a Wetland. (BVG1M: 9d).

**Short description:** *Corymbia torelliana* open forest usually with a well-developed simple notophyll vine forest element on granites and rhyolites

**Supplementary descriptions:** Stanton and Stanton (2005), G13b, CG13b, R13b; Tracey and Webb (1975), 13b

**Subregions:** 5, 6, (1), (9), (7), (8)

**Protected areas:** Girringun NP, Kirrama NP, Mount Windsor NP, Dinden NP, Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Paluma Range NP, Kuranda NP, Kuranda West FR, Bare Hill CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.17: There are two variants of this regional ecosystem, depending upon its association with rainforest regional ecosystems on the western and drier fringes at lower altitudes and its association with wetter rainforest regional ecosystems at higher altitudes. It is almost always associated with a rainforest sub-canopy. Generally restricted to southern end of bioregion, small patches in Monkhouse Timber Reserve and Daintree N.P. Most of the rainforest species present are fast-growing secondary species as a result of disturbance, mainly fire. This transitional rainforest ecosystem is of recent development (mostly within the last 30 years).

**Estimated extent:**<sup>1</sup> Pre-clearing 6000 ha; Remnant 2021 6000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by rainforest invasion.

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## Regional ecosystem 7.12.18

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Low microphyll araucarian vine forest (often with *Araucaria cunninghamii*). Typical species include *Aidia cochinchinensis*, *Araucaria cunninghamii*, *Austromyrtus bidwillii*, *Bursaria tenuifolia*, *Canarium australianum*, *Celtis philippensis*. Occurs on shallow soils on moist and dry foothills and uplands on granites. Not a Wetland. (BVG1M: 6b).

**Short description:** Microphyll vine forest often with hoop pine (*Araucaria cunninghamii*) on moist to dry granite foothills and uplands

**Supplementary descriptions:** Olsen: 26

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.18: Confined to an area south of the Herbert River gorge, The Seaview and Paluma Ranges. Alterations to regional fire regimes are impacting upon the margins of this regional ecosystem.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.19

**Description:** Simple microphyll vine-fern forest with *Balanops australiana* (pimply ash), *Elaeocarpus* spp. (quandongs) +/- *Trochocarpa bellendenkerensis* (tree heath) +/- *Uromyrtus* spp. +/- *Agathis atropurpurea* (blue kauri). Highlands, on granite and rhyolite, of the cloudy wet rainfall zone. Not a Wetland. (BVG1M: 6b).

Vegetation communities in this regional ecosystem include:

7.12.19a: Simple microphyll vine-fern forest (often with *Agathis atropurpurea*). Highlands of northern parts of the Bellenden Ker subregion and north. Cloudy wet rainfall zone. Not a Wetland. (BVG1M: 6b).

7.12.19b: Simple microphyll vine-fern forest characterised by *Ceratopetalum virchowii* contributing more than half the canopy cover. Exposed ridges and slopes of highlands of the very wet rainfall zone. Granite. Not a Wetland. (BVG1M: 6b).

7.12.19c: Simple microphyll vine-fern forest with *Cinnamomum propinquum* the dominant canopy species. Granite highlands of the very wet rainfall zone. Not a Wetland. (BVG1M: 6b).

7.12.19d: Microphyll Vine Thicket with *Trochocarpa bellendenkerensis*, *Uromyrtus* spp., *Rhodomyrtus macrocarpa*, *Placospermum coriaceum*, *Musgravea stenostachya*, and *Acacia celsa*. Steep granite boulder field and scree slopes of upland and highland areas. Not a Wetland. (BVG1M: 6b).

<b>Short description:</b>	Simple microphyll vine-fern forest with <i>Balanops australiana</i> , <i>Elaeocarpus</i> spp. +/- <i>Trochocarpa bellendenkerensis</i> +/- <i>Uromyrtus</i> spp. +/- <i>Agathis atropurpurea</i> of cloudy wet highlands on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G9 in part (Qld Herbarium and WTMA (2005) G9a), R9 in part (Qld Herbarium and WTMA (2005) R9a), G99, G138, G188; Tracey and Webb (1975), 9
<b>Subregions:</b>	9, 7
<b>Protected areas:</b>	Wooroonooran NP, Daintree NP (CYPAL), Mount Windsor NP, Mount Lewis NP, Danbulla NP, Dinden NP, Malbon Thompson FR, Ngalba-bulal NP (CYPAL), Mount Spurgeon NP, Malbon Thompson CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.19: Threatened species include: <i>Acrotriche baileyana</i> , <i>Aglaia brassii</i> , <i>Albizia</i> sp. (Windsor Tableland B.Gray 2181), <i>Austromuellera valida</i> , <i>Bubbia whiteana</i> , <i>Ceratopetalum corymbosum</i> , <i>Ctenopteris walleri</i> , <i>Eidothea zoexylocarya</i> , <i>Endiandra jonesii</i> , <i>Flindersia oppositifolia</i> , <i>Grammitis albosetosa</i> , <i>Helicia grayi</i> , <i>Helicia lewisensis</i> , <i>Phlegmariurus</i> spp., <i>Leionema ellipticum</i> , <i>Litsea granitica</i> , <i>Phaleria biflora</i> , <i>Stenocarpus davallioides</i> , <i>Symplocos granitica</i> and <i>Wendlandia connata</i> . Habitat for near threatened plant species <i>Austobuxus megacarpus</i> , <i>Bubbia queenslandiana</i> subsp. <i>queenslandiana</i> , <i>Chiloglottis longiclavata</i> , <i>Diospyros granitica</i> , <i>Glochidion pungens</i> , <i>Goodyera viridiflora</i> , <i>Helicia recurva</i> , <i>Medicosma glandulosa</i> , <i>Pectinopitys ladei</i> , <i>Sarcopteryx montana</i> , <i>Symplocos ampulliformis</i> and <i>Symplocos oresbia</i> . Habitat of many endemic species of fauna and flora. Other species of local significance include <i>Diospyros hemicycloides</i> , <i>Elaeocarpus johnsonii</i> and <i>Steganthera cooperorum</i> .
<b>Comments:</b>	7.12.19: Widespread in highland areas. Most accessible areas have been logged. Highlands north of Innisfail. Most accessible areas have been logged. Mostly weed free except for access roads.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 14000 ha; Remnant 2021 14000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	



## Regional ecosystem 7.12.20

**Description:** Simple microphyll vine-fern thicket. Windswept exposed peaks on granite, of the cloudy wet and moist rainfall zones. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple microphyll vine-fern thicket of windswept exposed peaks on granites

**Supplementary descriptions:** Stanton and Stanton G10; Tracey and Webb (1975), 10

**Subregions:** 9, 7, (6)

**Protected areas:** Daintree NP (CYPAL), Wooroonooran NP, Mount Lewis NP, Ngalba-bulal NP (CYPAL), Mount Spurgeon NP, Hinchinbrook Island NP, Mount Windsor NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.20: Habitat for a relatively high number of threatened plant species including: *Dracophyllum sayeri*, *Cinnamomum propinquum*, *Trachymene geraniifolia* and *Linospadix palmerianus*. Also restricted and disjunct species of flora, including: *Leptospermum wooroonooran*, *Alyxia orophila*, *Rhododendron lochiaie*, *Trochocarpa bellendenkerensis*, *Acronychia chooreechillum*, *Paphia meiniana*, *Flindersia oppositifolia*, *Pleioluma singuliflora*, *Quintinia quatrefagesii* and *Palmeria hypotephra*.

**Comments:** 7.12.20: This summit ecosystem is often the preferred site for telecommunication towers. Individual mountaintops may vary floristically. Floristically depauperate. A habitat usually restricted to above 1200 m altitude on the larger mountain massifs such as the Bellenden Ker Range and the Mount Carbine Tableland, but also at lower altitudes on exposed ridges of isolated mountains such as Thornton Peak, Mount Hemmant and Mount Finnigan. Human-induced global climate change could have a major impact on this naturally small and fragmented regional ecosystem. A fragile regional ecosystem that has a very slow recovery period from disturbances such as trampling. Moistly weed free.

**Estimated extent:**<sup>1</sup> Pre-clearing 6000 ha; Remnant 2021 6000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.21

**Description:** *Eucalyptus grandis* (rose gum) open forest to woodland, or *Corymbia intermedia* (pink bloodwood), *E. pellita* (red stringybark), and *E. grandis*, open forest to woodland, (or vine forest with these species as emergents). Granites and rhyolites. Not a Wetland. (BVG1M: 8a).

Vegetation communities in this regional ecosystem include:

7.12.21a: *Eucalyptus grandis* tall open forest and woodland. Granites and rhyolites. Not a Wetland. (BVG1M: 8a).

7.12.21b: *Eucalyptus grandis* tall open forest and woodland with a well-developed vine forest understorey. Granites and rhyolites. Not a Wetland. (BVG1M: 8a).

7.12.21c: *Corymbia intermedia*, *Eucalyptus pellita*, *E. grandis*, *E. pellita* x *E. grandis* tall open forest with *Acacia aulacocarpa* and *Allocasuarina torulosa*. Granites and rhyolites. Not a Wetland. (BVG1M: 8a).

7.12.21d: *Corymbia intermedia*, *Eucalyptus pellita*, *E. grandis*, *E. pellita* x *E. grandis* tall open forest with *Acacia aulacocarpa* and *Allocasuarina torulosa*, and with a very well-developed vine forest understorey. Granites and rhyolites. Not a Wetland. (BVG1M: 8a).

<b>Short description:</b>	<i>Eucalyptus grandis</i> open forest to woodland, or <i>Corymbia intermedia</i> , <i>E. pellita</i> and <i>E. grandis</i> open forest to woodland, (or vine forest with these species as emergents) on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G121, G121v, G56, G56v, CG56, R121, R121v, R56, R56v; Tracey and Webb (1975), 14a
<b>Subregions:</b>	5, 6, 9, 7, 4, 11.1, (9.6), (8), (9.3)
<b>Protected areas:</b>	Girringun NP, Kirrama NP, Paluma Range NP, Mount Windsor NP, Koombooloomba NP, Mount Lewis NP, Bowling Green Bay NP, Dinden NP, Baldy Mountain FR, Daintree NP (CYPAL), Danbulla NP, Wooroonooran NP, Herberton Range NP, Tully Falls NP, Herberton Range CP, Tumoulin NP, Mount Spurgeon NP, Gadgarra NP, Mount Hypipamee NP, Girramay NP, Barron Gorge NP, Millstream CP, Little Mulgrave NP, Ravenshoe FR 1, Bare Hill CP, Koombooloomba South FR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.21: Habitat for arboreal mammals. Habitat for plant species of limited distribution including <i>Bertya polystigma</i> , <i>Pityrodia salviifolia</i> , <i>Pomaderris argyrophylla</i> , <i>Dodonaea uncinata</i> , <i>Phebalium longifolium</i> and <i>Persoonia tropica</i> .
<b>Comments:</b>	7.12.21: Most of the variation within this regional ecosystem type is correlated with the frequency and intensity of fire, which modifies the lower layers of the forest. Grazing reduces fuel loads lowering intensity and frequency of fires. Past timber harvesting has influenced burning patterns. This regional ecosystem includes what was formerly in 7.12.14. Occurs as a narrow band, generally not more than a few hundred metres wide, on the western margin of the rainforests of the Mount Windsor Tableland, Mount Carbine Tableland, Lamb Range, Herberton Range, Cardwell Range and the Seaview Range. 7.12.21b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 16000 ha; Remnant 2021 15000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Less than 10% remains unaffected by severe degradation (rainforest invasion, timber harvesting and weed invasion.)

## Regional ecosystem 7.12.22

**Description:** *Eucalyptus resinifera* (red mahogany) +/- *Eucalyptus portuensis* (white mahogany) +/- *Syncarpia glomulifera* (turpentine) tall open forest to tall woodland (or vine forest with these species as emergents). Granite and rhyolite uplands and highlands, of the moist to wet rainfall zones. Not a Wetland. (BVG1M: 8a).

Vegetation communities in this regional ecosystem include:

7.12.22a: *Eucalyptus resinifera*, *Eucalyptus acmenoides*, *Corymbia intermedia*, *Eucalyptus cloeziana*, *Syncarpia glomulifera* tall open forest to tall woodland with *Allocasuarina torulosa* and *Callitris macleayana*. Uplands and highlands of the moist rainfall zone. Not a Wetland. (BVG1M: 8a).

7.12.22b: *Eucalyptus resinifera*, *Eucalyptus acmenoides*, *Corymbia intermedia*, *Eucalyptus cloeziana*, *Syncarpia glomulifera* tall open forest to tall woodland with *Allocasuarina torulosa* and *Callitris macleayana*, and with a very well-developed vine forest understorey. Uplands and highlands of the moist rainfall zone. Not a Wetland. (BVG1M: 8a).

7.12.22c: *Eucalyptus resinifera*, *E. acmenoides*, *Corymbia intermedia*, *E. cloeziana*, *Syncarpia glomulifera* tall open forest to tall woodland with *Allocasuarina torulosa* and *Callitris macleayana*. Uplands and highlands on laterite, of the moist rainfall zone. Not a Wetland. (BVG1M: 8a).

7.12.22d: *Syncarpia glomulifera*, *Eucalyptus resinifera*, and *Corymbia intermedia* open forest to tall open forest, often with *Callitris macleayana*, and *Allocasuarina torulosa*. Uplands of the wet rainfall zone. Not a Wetland. (BVG1M: 8a).

7.12.22e: *Syncarpia glomulifera*, *Eucalyptus resinifera*, and *Corymbia intermedia* open forest to tall open forest, often with *Callitris macleayana*, and *Allocasuarina torulosa*, and with a very well-developed vine forest understorey. Uplands of the wet rainfall zone. Not a Wetland. (BVG1M: 8a).

<b>Short description:</b>	<i>Eucalyptus resinifera</i> +/- <i>E. portuensis</i> +/- <i>Syncarpia glomulifera</i> tall open forest to tall woodland (or vine forest with these species as emergents) of granite and rhyolite uplands and highlands
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), A14b, A14bv, G14b, G14bv, G70, G70v, R14b, R14bv, R70, R70v, L14b; Tracey and Webb (1975), 14b
<b>Subregions:</b>	6, 5, 9, 4, 7, (9.4)
<b>Protected areas:</b>	Paluma Range NP, Koombooloomba NP, Mount Windsor NP, Baldy Mountain FR, Daintree NP (CYPAL), Mount Lewis NP, Herberton Range NP, Kirrama NP, Tully Falls NP, Dinden NP, Girringun NP, Tumoulin NP, Danbulla NP, Ravenshoe FR 1, Herberton Range CP, Wooroonooran NP, Mount Spurgeon NP, Koombooloomba South FR, Gadgarra NP, Little Mulgrave NP, Tully Gorge NP, Ngalba-bulal NP (CYPAL), Girramay NP, Hinchinbrook Island NP, Millstream CP, Bare Hill CP, Mount Hypipamee NP, Koombooloomba CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.22: Important arboreal mammal habitat for species including the yellow-bellied glider ( <i>Petaurus australis</i> ). Habitat for the tropical bettong ( <i>Bettongia tropica</i> ). Habitat for plant species with restricted distribution including <i>Bertya polystigma</i> , <i>Pityrodia salviifolia</i> , <i>Pomaderris argyrophylla</i> , <i>Dodonaea uncinata</i> , <i>Phebalium longifolium</i> , and <i>Persoonia tropica</i> .
<b>Comments:</b>	7.12.22: Grazing reduces fuel loads lowering intensity and frequency of fires. Past timber harvesting has influenced burning patterns. This regional ecosystem occurs in wetter zones and at higher altitudes than other <i>Eucalyptus resinifera</i> dominated ecosystems (7.12.51 and 7.12.52). It is distinguished from these by its tall stature, and lack of species such as <i>Corymbia leptoloma</i> , <i>C. abergiana</i> and <i>Eucalyptus reducta</i> . Occurs to the west of, adjacent to, and overlapping with RE 7.12.21 in drier and more fire-prone situations. Distributed patchily along the entire length of the bioregion. The ecological integrity of much of this regional ecosystem has been compromised by logging activities and alterations to regional fire regimes. In many places this ecosystem is in transition to rainforest, under which the regeneration of <i>Eucalyptus resinifera</i> cannot take place. 7.12.22b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 40000 ha; Remnant 2021 39000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Less than 10% remains unaffected by severe degradation (rainforest invasion, timber harvesting and weed invasion.)

## Regional ecosystem 7.12.23

**Description:** *Corymbia intermedia* (pink bloodwood) and/or *C. tessellaris* (Moreton Bay ash) +/- *Eucalyptus tereticornis* (forest red gum), open forest to tall open forest to woodland (or vine forest with these species as emergents). Coastal granite and rhyolite headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.12.23a: *Corymbia intermedia* open forest to tall open forest. Coastal granite and rhyolite headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.12.23b: *Corymbia intermedia* open forest to tall open forest with a very well-developed vine forest understorey. Coastal granite and rhyolite headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.12.23c: *Corymbia tessellaris* and *C. intermedia* open forest to tall woodland. Coastal granite and rhyolite headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.12.23d: *Corymbia tessellaris* and *C. intermedia* open forest to tall woodland with a very well-developed vine forest understorey. Coastal granite and rhyolite headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.12.23e: *Eucalyptus tereticornis*, *Corymbia tessellaris*, *E. pellita*, *C. intermedia*, *Melaleuca dealbata*, *Lophostemon suaveolens*, *Acacia mangium* and *A. crassicarpa* woodland to low woodland. Coastal granite and rhyolite headlands and near-coastal foothills. Not a Wetland. (BVG1M: 9c).

7.12.23f: *Eucalyptus tereticornis*, *Corymbia tessellaris*, *C. intermedia*, *E. drepanophylla*, *E. platyphylla*, *Lophostemon suaveolens* and *Acacia aulacocarpa* woodland to low woodland and low layered grassy woodland, with *Cycas media*. Foothills and coastal headlands, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9c).

- Short description:** *Corymbia intermedia* and/or *C. tessellaris* +/- *Eucalyptus tereticornis* open forest to tall open forest to woodland (or vine forest with these species as emergents) on coastal granite and rhyolite headlands and near-coastal foothills
- Supplementary descriptions:** Stanton and Stanton (2005), G73, G73v, CG73, CG73v, G74, G74v, R73, R73v, R74, R74v, G16a, G16g, CG16g, R16g; Tracey and Webb (1975), 14d, 16g
- Subregions:** 6, 3, 7, (2), (1), (5), (4)
- Protected areas:** Girringun NP, Hinchinbrook Island NP, Girramay NP, Tully Gorge NP, Family Islands NP, Goold Island NP, Hull River NP, Russell River NP, Fitzroy Island NP, Earl Hill CP, Grey Peaks NP, Danbulla NP, Paluma Range NP, Woornoonoran NP, Djiru NP
- Extent in reserves:** High
- Wetland:** Not a Wetland
- Special values:** 7.12.23: Potential habitat for NCA listed species: *Livistona drudei*.
- Comments:** 7.12.23: Distinguished from 7.12.53 by the dominance of *Corymbia intermedia* instead of *C. clarksoniana* (wetter zones than 7.12.53). Distinguished from 7.12.29 by its occurrence on headlands and near-coastal foothills as opposed to sub-coastal zones. Distinguished from 7.12.54 by its medium to tall stature (7.12.54 consists of mosaics of grasslands and shrublands with low wind-sheared eucalypt stands.). Near-coastal foothills south of Port Douglas.  
7.12.23b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.  
7.12.23d: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.
- Estimated extent:**<sup>1</sup> Pre-clearing 9000 ha; Remnant 2021 8000 ha
- VM class:** Of concern
- Biodiversity status:** Endangered
- Biodiversity status notes:** Less than 30% remains unaffected by severe degradation (rainforest invasion, timber harvesting and weed invasion.) and less than 10 000 Ha remain.

## Regional ecosystem 7.12.24

**Description:** *Eucalyptus portuensis* (white mahogany) and *Corymbia intermedia* (pink bloodwood) open forest to woodland (or vine forest with *E. portuensis* and *C. intermedia* emergents). Foothills and uplands on granite and rhyolite, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.12.24a: *Eucalyptus portuensis*, *Corymbia intermedia*, *E. drepanophylla*, *E. platyphylla*, *E. tereticornis*, *C. tessellaris*, *Lophostemon suaveolens*, *Syncarpia glomulifera* open forest to woodland. Foothills, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

7.12.24b: *Corymbia intermedia*, *Eucalyptus portuensis*, *E. drepanophylla*, *E. platyphylla*, *C. tessellaris*, *E. tereticornis*, *Syncarpia glomulifera*, *Lophostemon suaveolens*, *L. confertus* woodland to low woodland with *Xanthorrhoea johnsonii* and *Cycas media*. Foothills, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

7.12.24c: *Eucalyptus portuensis*, *E. drepanophylla*, *Corymbia intermedia*, *Lophostemon suaveolens* open forest to woodland with *Melaleuca viridiflora*, *Acacia flavescens* and *Allocasuarina littoralis*. Lowlands and foothills, of the wet and moist rainfall zones. Not a Wetland. (BVG1M: 9d).

<b>Short description:</b>	<i>Eucalyptus portuensis</i> and <i>Corymbia intermedia</i> open forest to woodland (or vine forest with <i>E. portuensis</i> and <i>C. intermedia</i> emergents) on foothills and uplands on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G15b, CG15b, R15b, G16d, R16d, G16m in part (Qld Herbarium and WTMA (2005) G16mb); Tracey and Webb (1975), 15b, 16d
<b>Subregions:</b>	5, 6, 7, 2, (1), (3), (9), (8), (9.4), (11.1), (9.6)
<b>Protected areas:</b>	Girringun NP, Paluma Range NP, Hinchinbrook Island NP, Girramay NP, Grey Peaks NP, Wooroonooran NP, Mount Lewis NP, Goold Island NP, Gadgarra NP, Little Mulgrave NP, Kirrama NP, Malbon Thompson FR, Macalister Range NP, Kuranda NP, Malbon Thompson CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.24: Potential habitat for NCA listed species: <i>Arytera dictyoneura</i> , <i>Corymbia leptoloma</i> , <i>Marsdenia rara</i> , <i>Coleus gratus</i> .
<b>Comments:</b>	7.12.24: Extensively cleared near Cardwell for * <i>Pinus caribaea</i> plantations. Distinguished from 7.12.34 by a tendency to occur in wetter zones and by the either pure stands or co-dominance with <i>C. intermedia</i> , whereas 7.12.34 tends to occur in drier, more western areas, and often has ironbarks or <i>Corymbia citriodora</i> as a component. South western examples may be subject to timber harvesting operations that create disturbance and facilitate weed invasion. Mainly central and southern parts of the bioregion, predominantly on the eastern fall of the main ranges.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 33000 ha; Remnant 2021 32000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.25

**Description:** *Eucalyptus cloeziana* (Gympie messmate) open forest to woodland. Granite and rhyolite, often on poorly drained soils with a seasonally high water table and a seasonal soil moisture deficit. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.12.25a: *Eucalyptus cloeziana* open forest, south of Tully. Granite and rhyolite. Not a Wetland. (BVG1M: 9d).

7.12.25b: *Eucalyptus cloeziana* tall open forest, in the far north of the bioregion near Helenvale. Granite. Not a Wetland. (BVG1M: 9d).

7.12.25c: *Eucalyptus cloeziana* woodland to tall woodland in the Atherton tablelands area. Granite and rhyolite. Not a Wetland. (BVG1M: 9d).

7.12.25d: *Eucalyptus cloeziana* woodland to tall woodland in the far north of the bioregion near Helenvale. Granite. Not a Wetland. (BVG1M: 9d).

**Short description:** *Eucalyptus cloeziana* open forest to woodland on granite and rhyolite, often on poorly drained soils

**Supplementary descriptions:** Stanton and Stanton (2005), G64, G64b, R64, G139, G139b, CG139, R139; Tracey and Webb (1975), 16c

**Subregions:** 9, 6, 5, (9.4), (4), (2), (1)

**Protected areas:** Girringun NP, Ngalba-bulal NP (CYPAL), Hinchinbrook Island NP, Paluma Range NP, Pinnacles NP, Herberton Range NP, Tully Falls NP, Baldy Mountain FR, Ravenshoe FR 1

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.25: Potential habitat for NCA listed species: *Acianthus sublestus*, *Corybas cerasinus*, *Crepidium lawleri*, *Dodonaea uncinata*, *Dubouzetia saxatilis*, *Parsonsia wildensis*.

**Comments:** 7.12.25: Several distinct areas over the bioregion - including the far north-west near Helenvale, the slopes of the Herberton Range west of Atherton, the western slopes of the Lamb Range, Hinchinbrook Island, the Cardwell Range, and the Paluma Range. Susceptible to severe rill and gully erosion. Some timber harvesting has occurred in the Atherton area.

**Estimated extent:**<sup>1</sup> Pre-clearing 8000 ha; Remnant 2021 8000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.26

**Description:** *Syncarpia glomulifera* (turpentine) +/- *Corymbia intermedia* (pink bloodwood) +/- *Allocasuarina* spp. (sheoaks) closed forest to woodland, or *Lophostemon suaveolens* (swamp mahogany), *Allocasuarina littoralis* (black sheoak), *C. intermedia* shrubland, (or vine forest with these species as emergents). Exposed ridgelines or steep rocky slopes, on granite and rhyolite. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.12.26a: *Syncarpia glomulifera*, *Allocasuarina torulosa* and/or *A. littoralis* open forest and woodland. Uplands and highlands, often on steep slopes, of the wet rainfall zone. Granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.26b: *Syncarpia glomulifera*, *Allocasuarina torulosa* and/or *A. littoralis* open forest and woodland with a very well-developed vine forest understorey. Uplands and highlands, often on steep slopes, of the wet rainfall zone. Granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.26c: *Corymbia intermedia*, *Syncarpia glomulifera*, *Lophostemon confertus* closed forest with *Allocasuarina torulosa* and *Banksia aquilonia*. Uplands and highlands, of the wet to moist rainfall zone. Granite and rhyolite. Not a Wetland. (BVG1M: 9d).

7.12.26d: *Syncarpia glomulifera*, *Corymbia intermedia*, *Allocasuarina littoralis*, *Banksia aquilonia*, *Acacia flavescens* woodland to low woodland with *Xanthorrhoea johnsonii*. Foothills and uplands of the moist rainfall zone. Granite and rhyolite. Not a Wetland. (BVG1M: 9d).

7.12.26e: *Syncarpia glomulifera* low open forest and low woodland. Uplands on steep rocky slopes, of the moist and dry rainfall zone. Granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.26f: *Lophostemon suaveolens*, *Allocasuarina littoralis*, *Corymbia intermedia*, *Eucalyptus pellita*, *Grevillea glauca*, *Persoonia falcata* and *Xanthorrhoea johnsonii* tall open shrubland. Upper slopes and ridge crests of moist zone. Not a Wetland. (BVG1M: 28e).

<b>Short description:</b>	<i>Syncarpia glomulifera</i> +/- <i>Corymbia intermedia</i> +/- <i>Allocasuarina</i> spp. open forest, or <i>Lophostemon suaveolens</i> , <i>Allocasuarina littoralis</i> , <i>C. intermedia</i> shrubland +/- vine forest spp. on exposed ridgelines or steep slopes on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G13f, G16f, G60, G67, G67v, R13f, R16f, R60, R67, R67v, R161, G161; Tracey and Webb (1975), 13f, 16f
<b>Subregions:</b>	6, 5, (7), (4), (3), (2), (9), (1)
<b>Protected areas:</b>	Girringun NP, Hinchinbrook Island NP, Paluma Range NP, Girramay NP, Tully Gorge NP, Little Mulgrave NP, Kirrama NP, Fitzroy Island NP, Baldy Mountain FR, Woornooran NP, Grey Peaks NP, Daintree NP (CYPAL), Herberton Range CP, Dinden NP, Goold Island NP, Ravenshoe FR 1, Tully Falls NP, Danbulla NP, Koombooloomba NP, Ngalba-bulal NP (CYPAL), Mount Windsor NP, Malbon Thompson CP, Malbon Thompson FR, Baldy Mountain CP, Herberton Range NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.26: Potential habitat for NCA listed species: <i>Acacia homaloclada</i> , <i>Austrobuxus megacarpus</i> , <i>Corybas cerasinus</i> , <i>Melaleuca uxor</i> , <i>Parsonia wildensis</i> , <i>Vincetoxicum rupicola</i> .
<b>Comments:</b>	7.12.26: Dense regeneration of understorey species such as <i>Acacia flavescens</i> and <i>Allocasuarina littoralis</i> are characteristic of disturbance. Generally experiences severe seasonal moisture deficits. Scattered throughout the bioregion but very common on the Cardwell Range and Hinchinbrook Island, also the Kirrama Range, Seaview Range, Yarrabah, and ranges west of Gordonvale. Susceptible to sheet and gully erosion. 7.12.26b: Well-developed vine forest understorey is probably a condition state caused by infrequent burning.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 35000 ha; Remnant 2021 35000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.27

**Description:** *Eucalyptus reducta* (Queensland stringybark) open forest to woodland. Uplands and highlands on shallow granitic and rhyolitic soils, of the moist rainfall zone. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.12.27a: *Eucalyptus reducta* medium open forest and woodland. Uplands and highlands on shallow granitic and rhyolitic soils, of the moist rainfall zone. Not a Wetland. (BVG1M: 9d).

7.12.27b: *Eucalyptus reducta* and *Syncarpia glomulifera* medium to tall open forest and woodland. Uplands and highlands on shallow granitic and rhyolitic soils, of the moist rainfall zone. Not a Wetland. (BVG1M: 9d).

7.12.27c: *Eucalyptus resinifera* and *Syncarpia glomulifera* open woodland. Uplands and highlands on shallow granitic and rhyolitic soils, of the moist rainfall zone. Not a Wetland. (BVG1M: 9d).

**Short description:** *Eucalyptus reducta* open forest to woodland on uplands and highlands on shallow granitic and rhyolitic soils

**Supplementary descriptions:** Stanton and Stanton (2005), G113, G30, G58, R113, R30, R58; Tracey and Webb (1975), 16n

**Subregions:** 9, 6, 4, 7, (9.6), (5), (9.4), (9.3)

**Protected areas:** Mount Windsor NP, Mount Lewis NP, Daintree NP (CYPAL), Danbulla NP, Tumoulin NP, Baldy Mountain FR, Paluma Range NP, Dinden NP, Koombooloomba South FR, Dinden West FR, Ravenshoe FR 1, Ngalbulal NP (CYPAL), Grey Peaks NP, Baldy Mountain CP, Millstream Falls NP, Danbulla South FR 2, Danbulla West FR, Girringun NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.27: Potential habitat for NCA listed species: *Diuris oporina*, *Homoranthus porteri*, *Melaleuca sylvana*, *Coleus amoenus*, *Prostanthera clotteniana*, *Zieria obovata*, *Zieria rimulosa*.

**Comments:** 7.12.27: Distinguished from 7.12.58 by the absence of *Corymbia dimorpha*, *C. citriodora* and *Eucalyptus granitica*. Only a small proportion in protected tenures. Widespread on the Mt Windsor and Mt Carbine tablelands, western Atherton tablelands (and for some distance south), and minor occurrences on the Seaview Range. Some areas are threatened by timber harvesting operations that create disturbance and facilitate weed invasion.

**Estimated extent:**<sup>1</sup> Pre-clearing 28000 ha; Remnant 2021 27000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.12.28

**Description:** Eucalyptus platyphylla (poplar gum) +/- E. drepanophylla (ironbark) +/- Corymbia spp. (bloodwoods) open woodland to open forest. Granite and rhyolite. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

7.12.28a: Eucalyptus platyphylla, E. drepanophylla, Corymbia intermedia, Lophostemon suaveolens woodland to low woodland to open forest. Lowlands and foothills on granite and rhyolite, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 9b).

7.12.28b: Eucalyptus platyphylla woodland to open woodland. Lowlands and foothills on granite and rhyolite, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 9b).

**Short description:** Eucalyptus platyphylla +/- E. drepanophylla +/- Corymbia spp. open woodland to open forest on granites and rhyolites

**Supplementary descriptions:** Stanton and Stanton (2005); G16p, CG16p, R16p, G42, R42; Tracey and Webb (1975), 16p

**Subregions:** 5, 1, 6, 11.1, (9), (7), (2), (9.4)

**Protected areas:** Girringun NP, Paluma Range NP, Annan River (Yuku Baja-Muliku) NP, Bare Hill CP, Davies Creek NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.28: Potential habitat for NCA listed species: *Livistona drudei*.

**Comments:** 7.12.28: Often tends to pure stands of *E. platyphylla* on lower slopes. Drier extremes of the bioregion, predominantly the Herbert River Gorge area and Seaview Range to the southern end of the bioregion. Also minor occurrences in the far north (north of Helenvale).

**Estimated extent:**<sup>1</sup> Pre-clearing 28000 ha; Remnant 2021 26000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.12.29

**Description:** *Corymbia intermedia* (pink bloodwood) and/or *Lophostemon suaveolens* (swamp mahogany) open forest to woodland +/- areas of *Allocasuarina littoralis* (black sheoak) and *A. torulosa* (forest sheoak). Uplands, on granite and rhyolite. Contains Palustrine. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.12.29a: *Corymbia intermedia*, *Eucalyptus tereticornis*, *E. drepanophylla* open forest to low open forest and woodland with *Allocasuarina torulosa*, *A. littoralis*, *Lophostemon suaveolens*, *Acacia cincinnata*, *A. flavescens*, *Banksia aquilonia* and *Xanthorrhoea johnsonii*. Uplands, on granite and rhyolite. Not a Wetland. (BVG1M: 9c).

7.12.29b: *Corymbia intermedia*, *Allocasuarina torulosa*, *Lophostemon suaveolens* open forest and woodland. Uplands, of the moist rainfall zone, on granite and rhyolite. Not a Wetland. (BVG1M: 9c).

7.12.29c: *Lophostemon suaveolens* woodland and open forest. Uplands, of the moist rainfall zone, on granite and rhyolite. Contains Palustrine. (BVG1M: 9c).

7.12.29d: *Allocasuarina torulosa* and *Acacia celsa* open forest. Steep rocky mountain slopes on granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.29e: *Allocasuarina littoralis* open shrubland with occasional *Syncarpia glomulifera*, and a ground stratum of *Themeda triandra* and *Xanthorrhoea johnsonii*. Rocky slopes and colluvium derived from granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.29f: *Themeda triandra* tussock grassland. Rhyolite hillslopes. Not a Wetland. (BVG1M: 32b).

<b>Short description:</b>	<i>Corymbia intermedia</i> and/or <i>Lophostemon suaveolens</i> open forest to woodland +/- areas of <i>Allocasuarina littoralis</i> and <i>A. torulosa</i> on uplands on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005); G16e in part (Qld Herbarium and WTMA (2005) G250a), CG16e (Qld Herbarium and WTMA (2005) CG250a), R16e (Qld Herbarium and WTMA (2005) R250a), G120, R120, R14d, G14d, G133, R133, G91, CG91, R91, R59; Tracey and Webb (1975), 16e, 14d
<b>Subregions:</b>	5, 6, (9.6), (1), (9.4), (4), (7), (9), (3), (2), (11.1), (9.3)
<b>Protected areas:</b>	Girringun NP, Paluma Range NP, Kirrama NP, Hinchinbrook Island NP, Koombooloomba South FR, Pinnacles NP, Koombooloomba NP, Girramay NP, Woornooran NP, Herberton Range NP, Dinden NP, Mount Hypipamee NP, Goold Island NP, Daintree NP (CYPAL), Ravenshoe FR 1, Tully Gorge NP, Danbulla NP, Baldy Mountain FR, Orpheus Island NP, Mount Windsor NP, Herberton Range CP, Gadgarra NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.12.29: Potential habitat for NCA listed species: <i>Corybas cerasinus</i> , <i>Corymbia leptoloma</i> , <i>Dodonaea uncinata</i> .
<b>Comments:</b>	7.12.29: Distinguished from 7.12.53 by the dominance of <i>Corymbia intermedia</i> instead of <i>C. clarksoniana</i> (usually higher altitude and/or wetter zones than 7.12.53). Distinguished from 7.12.23 by the occurrence on sub-coastal ranges as opposed to headlands and near coastal foothills. Very common on the Kirrama Range and Seaview Range, scattered elsewhere throughout the bioregion. Severe rill, gully and sheet erosion occurs in places.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 88000 ha; Remnant 2021 87000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.30

**Description:** *Corymbia citriodora* (lemon-scented gum) +/- *Eucalyptus portuensis* (white mahogany) woodland to open forest. Granite and rhyolite (often coarse-grained red earths and lithosols with much surface rock). Not a Wetland. (BVG1M: 10b).

Vegetation communities in this regional ecosystem include:

7.12.30a: *Corymbia citriodora*, *Eucalyptus portuensis*, *C. intermedia*, *Syncarpia glomulifera* woodland to low woodland to open forest with *Callitris intratropica*, *Acacia calyculata* and *Xanthorrhoea johnsonii*. Uplands and highlands, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 10b).

7.12.30b: *Corymbia citriodora* and *Eucalyptus granitica*, +/- *E. reducta*, +/- *C. abergiana* woodland to low open woodland often with *Acacia calyculata* and *Jacksonia* sp., and with *Themeda triandra* in the ground stratum. Rocky granite footslopes and mid-slopes. Not a Wetland. (BVG1M: 10b).

7.12.30c: *Eucalyptus portuensis*, *Corymbia citriodora*, *Syncarpia glomulifera* woodland and shrubland with a shrubby understorey of *Lophostemon confertus* and *S. glomulifera*, and a ground stratum of *Xanthorrhoea johnsonii*. Rocky slopes on rhyolite and granite. Not a Wetland. (BVG1M: 10b).

7.12.30d: Open woodland to open forest (10-20m tall) mosaic with variable dominance, often including *Eucalyptus cloeziana*, *C. citriodora*, *E. portuensis*, *E. lockyeri*, *C. leichhardtii*, *E. atrata*, *E. pachycalyx*, *E. reducta*, *C. intermedia* and *E. shirleyi*. There is often a very sparse to mid-dense secondary tree layer of *C. abergiana* and/or *C. stockeri*. A very sparse to sparse tall shrub layer may be present and can include *Acacia flavescens*, *Persoonia falcata*, *Bursaria spinosa* subsp. *spinosa*, *Allocasuarina inophloia*, *Petalostigma pubescens* and *Grevillea glauca*. A sparse to dense lower shrub layer may include *Jacksonia thesioides*, *Acacia calyculata*, *Xanthorrhoea johnsonii* and *Grevillea glossadenia*. The ground layer may be dominated by species such as *Themeda triandra*, *Heteropogon triticeus*, *Mnesithea rottboellioides*, *Arundinella setosa*, *Cleistochloa subjuncea*, *Eriachne pallescens* var. *pallescens*, *Lepidosperma laterale* and *Xanthorrhoea johnsonii*. Rocky slopes on granite and rhyolite. Not a Wetland. (BVG1M: 9d).

<b>Short description:</b>	<i>Corymbia citriodora</i> +/- <i>Eucalyptus portuensis</i> woodland to open forest on granite and rhyolite
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G129, G16i, R16i, R223, G223; Tracey and Webb (1975), 16i
<b>Subregions:</b>	9, 4, 6, 5, (9.6), (7), (9.4), (9.3)
<b>Protected areas:</b>	Mount Windsor NP, Mount Lewis NP, Paluma Range NP, Ravenshoe FR 1, Baldy Mountain FR, Danbulla NP, Koombooloomba South FR, Millstream Falls NP, Daintree NP (CYPAL), Tumoulin NP, Girringun NP, Davies Creek NP, Dinden West FR, Baldy Mountain CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.30: Potential habitat for NCA listed species: <i>Acacia longipedunculata</i> , <i>Acacia purpureopetala</i> , <i>Acacia tingoorensis</i> , <i>Corymbia rhodops</i> , <i>Diuris oporina</i> , <i>Dodonaea uncinata</i> , <i>Grevillea glossadenia</i> , <i>Homoranthus porteri</i> , <i>Melaleuca sylvana</i> , <i>Micromyrtus delicata</i> , <i>Coleus amoenus</i> , <i>Prostanthera clotteniana</i> , <i>Triplarina nitchaga</i> , <i>Zieria obovata</i> . 7.12.30d: Habitat for several locally restricted and disjunct species. Threatened plant species include <i>Micromyrtus delicata</i> , <i>Melaleuca sylvana</i> , <i>Diuris oporina</i> , <i>Homoranthus porteri</i> , <i>Grevillea glossadenia</i> , <i>Acacia purpureopetala</i> , <i>Corymbia rhodops</i> and <i>Prostanthera clotteniana</i> . Other species of local significance are <i>Eucalyptus lockyeri</i> .
<b>Comments:</b>	7.12.30: <i>Corymbia citriodora</i> , which is always present, becomes the only tree species in some forests. Fairly low woodland, typically grassy but can be shrubby. Ranges from open woodland <i>citriodora</i> /ironbark on western edge to the woodland/open forest <i>citriodora/acmenoides</i> regional ecosystems further east. Distinguished from 7.12.34 by the dominance of <i>C. citriodora</i> . Central and southern areas are degraded by timber harvesting activities and grazing, which create disturbance and facilitate weed invasion. Poorly represented in protected areas. Mount Windsor Tableland, Mount Carbine Tableland, Lamb Range, Mount Fox and the Kirrama-Oak Hills region. 7.12.30d: 7.12.65d was amalgamated into this RE. Distinguished from other regional ecosystems in the 7.12.30 series by the presence (often dominance) of <i>E. cloeziana</i> . Drier and lower in stature (and more western) than the 7.12.25 series. Also related to the 7.12.57 series but does not contain <i>Syncarpia glomulifera</i> (7.12.57a) and the canopy is taller in stature (>10m tall) than 7.12.57c which is <10m tall. Occurs to the west of Herberton and on the Herberton Range to the NW of Mt. Emerald. The weed <i>Praxelis clematidea</i> is a problem from the Herberton Range south.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 43000 ha; Remnant 2021 43000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present

### Regional ecosystem 7.12.31

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. *Eucalyptus portuensis* or *E. mediocris*, *Eucalyptus platyphylla*, *Corymbia intermedia*, *Corymbia tessellaris*, *Eucalyptus tereticornis*, *Syncarpia glomulifera*, *Lophostemon suaveolens*, *Lophostemon confertus* woodland, with *Xanthorrhoea johnsonii* and *Cycas media*. Occurs on drier sites of moist foothill slopes and steep dry sites of ranges on yellow earth derived from granitic parent material. Not a Wetland. (BVG1M: 13).

**Short description:** White mahogany (*Eucalyptus acmenoides*) and poplar gum (*Eucalyptus platyphylla*) woodland on dry granite foothill slopes

**Supplementary descriptions:** Tracey and Webb (1975), 16d

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.31: Near Cairns, including offshore continental islands (e.g. Fitzroy Island NP -- 202 ha), Hinchinbrook Island, Cardwell Range, and the ranges to the west and south of Ingham.

**Estimated extent:**<sup>1</sup>

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 7.12.32

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. *Eucalyptus cullenii*, *Corymbia nesophila*, *Eucalyptus platyphylla*, woodland, with *Melaleuca nervosa*. Occurs on gravelly soils, usually on dry granitic ridge tops. Not a Wetland. (BVG1M: 13).

**Short description:** Cullen's ironbark (*Eucalyptus cullenii*) woodland on dry granite ridge tops

**Supplementary descriptions:** Neldner and Clarkson (1995), 70; Tracey and Webb (1975), 16j

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.32: Found from Mareeba north through to Cooktown.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 7.12.33

**Description:** *Corymbia nesophila* (Melville Island bloodwood) woodland to open forest. Granite. Not a Wetland. (BVG1M: 14c).

Vegetation communities in this regional ecosystem include:

7.12.33a: *Corymbia nesophila* woodland to open woodland. Granite. Not a Wetland. (BVG1M: 14c).

7.12.33b: *Corymbia nesophila* open forest to tall open forest. Granite. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* woodland to open forest on granite

**Supplementary descriptions:** Stanton and Stanton (2005); G181, G169; Tracey and Webb (1975), 16k

**Subregions:** 9, (9.3), (3.2)

**Protected areas:** Daintree NP (CYPAL), Ngalba-bulal NP (CYPAL), Mount Windsor NP, Ngalba Bulal NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.33: Potential habitat for NCA listed species: *Cooktownia robertsii*, *Dendrobium johannis*, *Habenaria rumphii*.

**Comments:** 7.12.33: Central and western ranges on the north-eastern edge of Mount Windsor Tableland, and north of the Daintree River.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 7.12.34

**Description:** *Eucalyptus portuensis* (white mahogany) and/or *E. drepanophylla* (ironbark), +/- *C. intermedia* (pink bloodwood) +/- *C. citriodora* (lemon-scented gum), +/- *E. granitica* (granite ironbark) open woodland to open forest. Uplands on granite, of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

**Short description:** *Eucalyptus portuensis* and/or *E. drepanophylla* +/- *C. intermedia* +/- *C. citriodora*, +/- *E. granitica* open woodland to open forest on uplands on granite

**Supplementary descriptions:** Stanton and Stanton (2005), G16m, R16m; Tracey and Webb (1975), 16m

**Subregions:** 5, 9.3, 6, 4, 7, 9, (9.6), (11.1), (3.2), (9.4), (8), (1)

**Protected areas:** Girringun NP, Hann Tableland NP, Paluma Range NP, Mount Windsor NP, Danbulla NP, Dinden NP, Herberton Range NP, Bare Hill CP, Baldy Mountain FR, Daintree NP (CYPAL), Dinden West FR, Mount Lewis NP, Davies Creek NP, Ravenshoe FR 1, Herberton Range CP, Mount Cook NP, Kirrama NP, Danbulla South FR 2, Danbulla West FR, Koombooloomba South FR, Millstream Falls NP, Ngalba-bulal NP (CYPAL), Tully Falls NP, Tumoulin NP, Macalister Range NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.34: Potential habitat for NCA listed species: *Acacia longipedunculata*, *Calochlaena villosa*, *Croton densivestitus*, *Grevillea glossadenia*, *Homoranthus porteri*, *Coleus amoenus*, *Solanum angustum*, *Zieria obovata*.

**Comments:** 7.12.34: Distinguished from 7.12.24 by a tendency to occur in drier, more western zones and by the common presence of ironbarks or *Corymbia citriodora*, whereas 7.12.24 occurs in wetter areas and has either pure stands of *E. portuensis* or a co-dominance of *C. intermedia*. Distinguished from 7.12.30 by the dominance of *E. portuensis*. Threatened in some areas by timber harvesting operations that create disturbance and facilitate weed invasion. Widespread along the western edge of the bioregion, particularly common in the Kirrama-Oak Hills area and in the vicinity of the Atherton Tablelands.

**Estimated extent:**<sup>1</sup> Pre-clearing 53000 ha; Remnant 2021 51000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 7.12.35

**Description:** *Eucalyptus portuensis* (white mahogany), *E. tereticornis* (forest red gum), *Corymbia intermedia* (pink bloodwood) woodland. Extensive dissected granites and rhyolites in the Kirrama - Oak Hills area. Not a Wetland. (BVG1M: 9d).

**Short description:** *Eucalyptus portuensis*, *E. tereticornis*, *Corymbia intermedia* woodland on granites and rhyolites in the Kirrama-Oak Hills area

**Supplementary descriptions:** Stanton and Stanton (2005), G16o, R16o; Tracey and Webb (1975), 16o

**Subregions:** 6, (4), (5), (9.6)

**Protected areas:** Girringun NP, Kirrama NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.35: Found in the Kirrama-Oak Hills area. Threatened by timber harvesting operations that creates disturbance and facilitates weed invasion.

**Estimated extent:**<sup>1</sup> Pre-clearing 10000 ha; Remnant 2021 10000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.36

**Description:** [RE not in use]<sup>2</sup>: History of this RE is unknown. Deciduous microphyll vine thicket. Typical species include *Acacia polystachya*, *Aidia cochinchinensis*, *Alphitonia excelsa*, *Arytera divaricata*, *Bridelia leichhardtii*, *Canarium australianum*, *Cyclophyllum coprosmoides*, *Chionanthus ramiflora*. Occurs on dry lowland granitic lithosol. Not a Wetland. (BVG1M: 7b).

**Short description:** Deciduous microphyll vine thicket on fire protected dry granite lowlands

**Supplementary descriptions:** Tracey and Webb (1975), 11

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.36: This regional ecosystem is characterised by extensive rock outcrops between vine thickets and is only found as small isolated patches. Examples of this ecosystem can be observed along the Cook Highway north of Cairns, particularly on the granitic rock outcrops in the Hartley Creek area. The regional ecosystem type is more common in other regions of northern Australia.

**Estimated extent:**<sup>1</sup>

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.37

**Description:** Rock pavements and seepage areas of wet lowlands, uplands and highlands of the eastern escarpment and central range (excluding high granite areas of Hinchinbrook Island and Bishops Peak), with *Allocasuarina* spp. (sheoaks) low woodland and/or sedgeland. Granite and rhyolite. Contains Palustrine. (BVG1M: 28e).

Vegetation communities in this regional ecosystem include:

7.12.37a: Complex of open to closed shrublands, low to medium woodlands and forests and grasslands. Mountain rock pavements. Main component: scrub (*Allocasuarina littoralis*, *Syncarpia glomulifera*, *Lophostemon confertus*), shrubland (*Banksia aquilonia*, *Leptospermum* sp.) and heath (*Xanthorrhoea johnsonii*, *Gahnia* spp., *Dicranopteris linearis*). Mountainous eastern fall. Granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.37b: *Allocasuarina littoralis* woodland and open forest. Steep rocky mountain slopes, and ridge tops, on granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.37c: *Allocasuarina littoralis*, *Banksia aquilonia*, *Leptospermum polygalifolium*, and *Xanthorrhoea johnsonii* open shrubland with *Themeda triandra* and *Gahnia* spp. Exposed slopes on shallow granite soils. Not a Wetland. (BVG1M: 28e).

7.12.37d: *Allocasuarina littoralis*, *Banksia aquilonia*, *Leptospermum polygalifolium*, *Acrotriche aggregata*, *Xanthorrhoea johnsonii*, open shrubland. Common ground cover species include *Themeda triandra* and *Gahnia* spp., whilst *Borya septentrionalis* sometimes occupies small rock faces. Exposed slopes on shallow soils on granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.37e: *Acacia flavescens*, *Allocasuarina littoralis*, *Lophostemon grandiflorus*, *Alyxia spicata* and *Acacia calyculata* closed heath and shrubland. Exposed coastal headlands. Granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.37f: *Gahnia sieberiana* sedgeland. Seepage zones and shallow basins on granite slopes and ridges. Palustrine. (BVG1M: 34f).

7.12.37g: Sedgeland-shrubland complexes with emergent shrubs, fernland with emergent shrubs, shrublands and low woodlands with *Allocasuarina littoralis*, *Melaleuca quinquenervia*, *Rhodomyrtus sericea*, *Melastoma malabathricum* subsp. *malabathricum*, *Gahnia sieberiana*, *Schoenus sparteus*, *Ischaemum australe*, *Dianella* sp., *Drosera* sp. Uplands of the very wet rainfall zone. Granite and rhyolite. Palustrine. (BVG1M: 34f).

7.12.37h: *Acacia flavescens*, *Allocasuarina littoralis* and *Allocasuarina torulosa* low shrubby open forest to woodland. Granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.37i: Bare rock pavements associated with *Allocasuarina* spp. (sheoaks) shrublands and/or sedgelands on seepage areas of wet lowlands, uplands and highlands of the eastern escarpment and central range (excluding high granite areas of Hinchinbrook Island and Bishops Peak). Rock pavements and outcrops. Granite and rhyolite. Not a Wetland. (BVG1M: 29b).

<b>Short description:</b>	Rock pavements and seepage areas of wet lowlands, uplands and highlands of the eastern escarpment and central range (excluding Hinchinbrook Island and Bishop Peak) on granite and rhyolite, with <i>Allocasuarina</i> spp. Low woodland and/or sedgelands
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G213, G145 in part (Qld Herbarium and WTMA (2005) G246a), R146, G146 in part (Qld Herbarium and WTMA (2005) G146 and G245a), R213, R21 in part (Qld Herbarium and WTMA (2005) R244a), G21 in part (Qld Herbarium and WTMA (2005) G244a), G220, G162, R162, R145, G171, R171, G260a in part (Qld Herbarium and WTMA (2005) G260af), R260a in part (Qld Herbarium and WTMA (2005) R260af), G162a; Tracey and Webb (1975), 21
<b>Subregions:</b>	6, 7, 5, 9, (3), (2), (4), (1), (8)
<b>Protected areas:</b>	Girringun NP, Tully Gorge NP, Woornooran NP, Hinchinbrook Island NP, Girramay NP, Daintree NP (CYPAL), Paluma Range NP, Japoon NP, Fitzroy Island NP, Kirrama NP, Ngalba-bulai NP (CYPAL), Tully Falls NP, Maalan NP, Mount Mackay NP, Herberton Range CP, Annan River (Yuku Baja-Muliku) NP, Macalister Range NP, Herberton Range NP, Dinden NP, Bare Hill CP, Little Mulgrave NP, Grey Peaks NP, Goold Island NP, Baldy Mountain FR, Malbon Thompson FR, Mount Windsor NP, Mount Lewis NP, Russell River NP, Malbon Thompson CP, Danbulla NP, Koombuloomba NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.12.37: Potential habitat for NCA listed species: <i>Austrobuxus megacarpus</i> , <i>Coleus gratus</i> , <i>Polyalthia submontana</i> subsp. <i>submontana</i> , <i>Prostanthera albohirta</i> , <i>Prostanthera clotteniana</i> , <i>Vincetoxicum rupicola</i> .

**Comments:** 7.12.37: Distinguished from other *Allocasuarina* spp. dominated rock-pavement regional ecosystems by its eastern fall position and high rainfall, and exclusion from Hinchinbrook Island and Bishops Peak (occurrences of which are split into their own ecosystem - 7.12.64). Scattered across most of the bioregion.  
7.12.37a: Minor components: 13f and 16f. (Webb and Tracey).  
7.12.37i: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.

**Estimated extent:**<sup>1</sup> Pre-clearing 5000 ha; Remnant 2021 5000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.38

**Description:** Deciduous microphyll vine forest and/or blue-green algae-covered granite and rhyolite boulderfields. Foothills of the moist rainfall zone. Not a Wetland. (BVG1M: 29b).

Vegetation communities in this regional ecosystem include:

7.12.38a: Blue-green algae-covered boulders on giant granodiorite boulder jumbles (granitic lithosol). Occurs on boulderfields largely devoid of vascular plants. Not a Wetland. (BVG1M: 29b).

7.12.38b: Deciduous microphyll vine thicket. Granite and rhyolite. Not a Wetland. (BVG1M: 7b).

7.12.38c: Deciduous microphyll vine thicket. Lowlands and foothills of the far south of the bioregion. Dry rainfall zone. Rhyolite. Not a Wetland. (BVG1M: 7b).

**Short description:** Deciduous microphyll vine forest and/or blue-green algae-covered granite and rhyolite boulderfields

**Supplementary descriptions:** Stanton and Stanton (2005), R11, R11a, G11, G260a in part (Qld Herbarium and WTMA (2005) G260ab); Neldner and Clarkson (1995), 195; Tracey and Webb (1975), 21, 11

**Subregions:** 3.5, 9, (5), (3.2)

**Protected areas:** Kalkajaka NP (CYPAL), Ngalba-bulal NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Paluma Range NP, Mount Lewis NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.38: The Black Trevethan Range is the only known habitat for several very restricted threatened species of fauna including *Cophixalus saxatilis*, *Nactus galgajuga*, *Carlia scirtetis*, *Ctenotus nullum*. Caves formed in these boulder fields provide roost sites for *Macroderma gigas*. Threatened plant species include *Rhaphidospora cavernarum*. Southern limit for several Cape York species e.g. *Curcuma australasica* and *Arytera bifoliolata*.

**Comments:** 7.12.38: The blue-green algae that cover the surface of the granitic boulders form the major component of the biomass. Floristically depauperate. Affinities with this vegetation are mixed, with definite Cape York, southern Queensland and Einasleigh Uplands representatives. This regional ecosystem is confined to the Black Mountain-Mount Simon area near Cooktown, although a variant of the deciduous microphyll vine forest element is found in the far south, on the Seaview Range. Fire regimes and intensity is important. The edges of this ecosystem are very weedy, but overall it is in good condition.  
7.12.38a: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem subject to weed invasion.

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## Regional ecosystem 7.12.39

**Description:** Complex mesophyll vine forest. Fertile, well drained granites and rhyolites of the lowlands, foothills and uplands. Very wet and wet rainfall zone. Not a Wetland. (BVG1M: 1a).

Vegetation communities in this regional ecosystem include:

7.12.39a: Complex mesophyll vine forest. Lowlands and foothills, of the very wet and wet rainfall zone. Not a Wetland. (BVG1M: 1a).

7.12.39b: Complex mesophyll vine forest. Uplands of the very wet and cloudy wet rainfall zone. Not a Wetland. (BVG1M: 1a).

**Short description:** Complex mesophyll vine forest on fertile, well-drained granites and rhyolites of very wet and wet lowlands, foothills and uplands

**Supplementary descriptions:** Stanton and Stanton (2005), G1a, CG1a, G1b, CR1a; Tracey and Webb (1975), 1a

**Subregions:** 7, 6, 9, (2)

**Protected areas:** Tully Gorge NP, Daintree NP (CYPAL), Wooroonooran NP, Girringun NP, Japoon NP, Mount Lewis NP, Danbulla NP, Gadgarra NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.39: Potential habitat for NCA listed species: *Aphyllorchis anomala*, *Austromuellera trinervia*, *Beilschmiedia castrisinensis*, *Buckinghamia ferruginiflora*, *Endiandra grayi*, *Gardenia actinocarpa*, *Gymnostoma australium*, *Neostrearia fleckeri*, *Noahdendron nicholasii*, *Piper mestonii*, *Stenocarpus cryptocarpus*, *Syzygium glenum*.

**Comments:** 7.12.39: Occurs on better-drained and more fertile soils than 7.12.1. Scattered through central parts of bioregion including Mount Cullumbullum and surrounding ranges, the eastern side of Thornton Range and Wooroonooran National Park.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 1000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.40

**Description:** Closed vineland of wind-disturbed vine forest. Granites and rhyolites. Not a Wetland. (BVG1M: 5d).

Vegetation communities in this regional ecosystem include:

7.12.40a: Open areas in vine forests, dominated by sprawling vines, commonly *Decalobanthus peltatus* and a number of other vine species, presumed to mostly originate from cyclone damaged Type 2a forests (where the entire canopy has been destroyed.). Generally foothills of coastal ranges below 400 metres. Not a Wetland. (BVG1M: 5d).

7.12.40b: Mesophyll to notophyll vine forest suffering from extreme wind damage where at least half the canopy has been destroyed. Granite and rhyolite. Not a Wetland. (BVG1M: 5d).

7.12.40c: Complex notophyll vine forest (with emergent *Agathis robusta*) suffering from extreme wind damage where at least half the canopy has been destroyed. Granite and rhyolite. Not a Wetland. (BVG1M: 5d).

7.12.40d: Simple notophyll vine forest (often with *Agathis microstachya*) suffering from extreme wind damage where at least half the canopy has been destroyed. Granite. Not a Wetland. (BVG1M: 5d).

7.12.40e: Complex mesophyll vine forest suffering from extreme wind damage where at least half the canopy has been destroyed. Colluvium of the very wet and wet rainfall zones. Not a Wetland. (BVG1M: 5d).

<b>Short description:</b>	Closed vineland of wind-disturbed vine forest on granites and rhyolites
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G66, R66, G2ax(w), R2ax(w), CG1ax(w), CG2ax(w), G6x(w), R6x(w), G8x(w)
<b>Subregions:</b>	7, 3, 6, 9, (2), (5), (1)
<b>Protected areas:</b>	Wooroonooran NP, Djiru NP, Hinchinbrook Island NP, Clump Mountain NP, Girringun NP, Girramay NP, Paluma Range NP, Daintree NP (CYPAL), Tully Gorge NP, Russell River NP, Mount Mackay NP, Japoon NP, Hull River NP, Family Islands NP, Malbon Thompson FR, Fitzroy Island NP, Ngalba-bulal NP (CYPAL), Goold Island NP, Grey Peaks NP, Mount Windsor NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.40: Potential habitat for NCA listed species: <i>Aphyllorchis anomala</i> , <i>Arenga australasica</i> , <i>Diplazium cordifolium</i> , <i>Endiandra anthropophagorum</i> , <i>Endiandra bellendenkerana</i> , <i>Microsorium membranifolium</i> , <i>Piper mestonii</i> .
<b>Comments:</b>	7.12.40: Naturally wind or cyclone-disturbed communities that appear to be in a stable state either due to repeated disturbance and exposure, or due to the perpetual prevention of tree regeneration under the vine tangle. Scattered across the bioregion, especially common on the Bellenden Ker Range.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 3000 ha; Remnant 2021 3000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.41

**Description:** Podocarpus grayae (northern brown pine), Callitris endlicheri (black cypress pine) and Acacia celsa (brown salwood) heathland/shrubland. Steep rocky granite slopes of the Hinchinbrook Island uplands and highlands. Not a Wetland. (BVG1M: 6b).

**Short description:** Podocarpus grayae, Callitris endlicheri and Acacia celsa heathland/shrubland on steep rocky granite slopes of the Hinchinbrook Island uplands and highlands

**Supplementary descriptions:** Stanton and Stanton (2005), G218

**Subregions:** 6

**Protected areas:** Hinchinbrook Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.41: Restricted to Hinchinbrook Island.

**Estimated extent:**<sup>1</sup> Pre-clearing 600 ha; Remnant 2021 600 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.42

**Description:** Notophyll vine forest with Flindersia brayleyana (Queensland maple) and Arggyrodendron polyandrum (brown tulip oak). Granite uplands of Great Palm Island. Not a Wetland. (BVG1M: 5c).

Vegetation communities in this regional ecosystem include:

7.12.42a: Tall notophyll vine forest with Flindersia brayleyana and Arggyrodendron polyandrum. Granite uplands of Great Palm Island. Not a Wetland. (BVG1M: 5c).

7.12.42b: Closed forest dominated by Acacia flavescens and A. cincinnata with a vine forest sub-canopy. Granite uplands of Great Palm Island. Not a Wetland. (BVG1M: 5d).

**Short description:** Notophyll vine forest with Flindersia brayleyana and Arggyrodendron polyandrum on granite uplands of Great Palm Island

**Supplementary descriptions:** Stanton and Stanton (2005), G253, G256

**Subregions:** 1

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 7.12.42: Endemic ecosystem to Palm Islands.

**Comments:** 7.12.42: Essentially a tall notophyll vine forest with Arggyrodendron polyandrum and Flindersia brayleyana that includes areas of natural wind disturbance dominated by Acacia flavescens and A. cincinnata. Distinguished from 7.12.47 by the co-dominance of Flindersia brayleyana and tends towards a more notophyll composition (and restricted to Palm Island). Restricted to Great Palm Island.

**Estimated extent:**<sup>1</sup> Pre-clearing 500 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by clearing.

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## Regional ecosystem 7.12.43

**Description:** Simple notophyll vine forest dominated by *Stockwellia quadrifida* (stockwellia). Granite. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple notophyll vine forest dominated by *Stockwellia quadrifida* on granite

**Supplementary descriptions:** Stanton and Stanton (2005), G111; Tracey and Webb (1975), 8

**Subregions:** 7

**Protected areas:** Wooroonooran NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.43: Structurally and floristically very unique.

**Comments:** 7.12.43: This regional ecosystem is taller (average height 45-50m) than the surrounding ecosystem (7.12.16), and has a uniform canopy of *Stockwellia quadrifida*. A very rare ecosystem confined to one small area, and therefore at risk of extinction via a single localised disturbance event. Restricted to Bellenden Ker Range.

**Estimated extent:**<sup>1</sup> Pre-clearing 500 ha; Remnant 2021 500 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Threatened by extinction due to a single disturbance event.

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## Regional ecosystem 7.12.44

**Description:** Simple notophyll vine forest dominated by *Blepharocarya involucrigera* (rose butternut). Granite. Not a Wetland. (BVG1M: 5c).

**Short description:** Simple notophyll vine forest dominated by *Blepharocarya involucrigera* on granite

**Supplementary descriptions:** Stanton and Stanton (2005), G109

**Subregions:** 7, (9)

**Protected areas:** Wooroonooran NP, Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.44: Although apparently disturbed communities, they appear to be natural disturbance or man-made during pre-European times. Widespread in Cape York. From Bellenden Ker Range north to near Helenvale.

**Estimated extent:**<sup>1</sup> Pre-clearing 400 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.45

**Description:** Simple notophyll vine forest dominated by *Dryadodaphne trachyphloia*. Highlands on granite, of the wet rainfall zone. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple notophyll vine forest dominated by *Dryadodaphne trachyphloia* on granite

**Supplementary descriptions:** Stanton and Stanton (2005), G192; Tracey and Webb (1975), 2a

**Subregions:** 9

**Protected areas:** Daintree NP (CYPAL), Mount Lewis NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.45: Restricted to Mt Carbine Tableland.

**Estimated extent:**<sup>1</sup> Pre-clearing 300 ha; Remnant 2021 300 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.46

**Description:** Microphyll vine forest with *Gossia bidwillii* (python tree) +/- *Araucaria cunninghamii* (hoop pine). Steep granite talus and boulder slopes of the Palm Islands. Not a Wetland. (BVG1M: 7a).

Vegetation communities in this regional ecosystem include:

7.12.46a: Low notophyll/microphyll vine thicket and vine woodland with *Gossia bidwillii*. Steep granite talus and boulder slopes. Not a Wetland. (BVG1M: 7a).

7.12.46b: Microphyll vine forest with *Gossia bidwillii*, *Cleistanthus dallachyanus* +/- *Araucaria cunninghamii*. Steep rock talus and boulder slopes. Not a Wetland. (BVG1M: 7a).

**Short description:** Microphyll vine forest with *Gossia bidwillii* +/- *Araucaria cunninghamii* on steep granite talus and boulder slopes of the Palm Islands

**Supplementary descriptions:** Stanton and Stanton (2005), G238, G26 in part (Qld Herbarium and WTMA (2005) G26a); Olsen 26

**Subregions:** 1

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.46: A rare ecosystem, currently with no areas in protected tenures. Restricted to Great Palm Island.

**Estimated extent:**<sup>1</sup> Pre-clearing 400 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.47

**Description:** Notophyll-microphyll semi-evergreen vine forest with *Argyrodendron polyandrum* (brown tulip oak) emergents. Rhyolite. Not a Wetland. (BVG1M: 7a).

Vegetation communities in this regional ecosystem include:

7.12.47a: Notophyll-microphyll semi-evergreen vine forest and thicket with emergents of *Argyrodendron polyandrum*. Rhyolite. Not a Wetland. (BVG1M: 7a).

7.12.47b: Notophyll-microphyll semi-evergreen vine forest and thicket with *Argyrodendron polyandrum*, *Strychnos psilosperma*, *Croton insularis*, *Brombya platynema*, *Geijera salicifolia* and *Elaeodendron melanocarpum*. Rhyolite. Not a Wetland. (BVG1M: 7a).

**Short description:** Notophyll-microphyll semi-evergreen vine forest with *Argyrodendron polyandrum* emergents on rhyolite

**Supplementary descriptions:** Stanton and Stanton (2005), R222, R203, M203

**Subregions:** 5

**Protected areas:** Paluma Range NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.47: Habitat for the only known locations of *Cupaniopsis wadsworthii* and *Pleioluma queenslandica* in the bioregion.

**Comments:** 7.12.47: Some (possibly metamorphic) examples adjacent to the rhyolitic occurrences of this regional ecosystem have been included because the metamorphic classification is uncertain. Distinguished from 7.12.42 by not being co dominated by *Flindersia brayleyana*, and by tending towards a more microphyll composition (and absent from Palm Island). This regional ecosystem has predominantly subtropical affinities and is related to central Queensland regional ecosystems. There are no regional endemics present. Floristically very depauperate. Restricted to the Paluma Range, northwest of Paluma Dam. *Lantana camara* often forms dense thickets around the margin and invades suitable canopy gaps within the rainforest.

**Estimated extent:**<sup>1</sup> Pre-clearing 100 ha; Remnant 2021 100 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by weed (*Lantana*) invasion and rainforest invasion.

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## Regional ecosystem 7.12.48

**Description:** Wind-sheared notophyll vine forest. Exposed granite and rhyolite ridge-crests and steep slopes. Not a Wetland. (BVG1M: 6b).

**Short description:** Wind-sheared notophyll vine forest on exposed granite and rhyolite ridge crests and steep slopes

**Supplementary descriptions:** Stanton and Stanton (2005), G31, R31

**Subregions:** 6, 7, 9, 5, (2), (4), (8), (1)

**Protected areas:** Girringun NP, Tully Gorge NP, Daintree NP (CYPAL), Wooroonooran NP, Girramay NP, Ngalba-bulal NP (CYPAL), Paluma Range NP, Tully Falls NP, Mount Mackay NP, Grey Peaks NP, Kirrama NP, Dinden NP, Mount Lewis NP, Maalan NP, Malbon Thompson FR, Koombooloomba NP, Japoon NP, Macalister Range NP, Kuranda NP, Alcock FR, Hinchinbrook Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.48: Potential habitat for NCA listed species: *Argophyllum cryptophlebium*, *Helicia grayi*, *Lepiderema hirsuta*, *Symplocos ampulliformis*.

**Comments:** 7.12.48: Distinguished from 7.12.1 and other similar ecosystems by its low, wind-sheared nature. Widely distributed throughout bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 7000 ha; Remnant 2021 7000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.49

**Description:** Notophyll vine forest and thicket with *Planchonella euphlebia* (hickory boxwood) and *Podocarpus grayae* (northern brown pine). Granite. Not a Wetland. (BVG1M: 6b).

**Short description:** Notophyll vine forest and thicket with *Planchonella euphlebia* and *Podocarpus grayae* on granite

**Supplementary descriptions:** Stanton and Stanton (2005), G219

**Subregions:** 6

**Protected areas:** Hinchinbrook Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.49: Restricted to Hinchinbrook Island.

**Estimated extent:**<sup>1</sup> Pre-clearing 400 ha; Remnant 2021 400 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.50

**Description:** Simple microphyll vine-fern forest. Highlands on granite and rhyolite, of the wet rainfall zone. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple microphyll vine-fern forest of highlands on granite and rhyolite

**Supplementary descriptions:** Stanton and Stanton (2005), G9, R9, CG9; Tracey and Webb (1975), 9

**Subregions:** 6, 7, 4, (5)

**Protected areas:** Tully Falls NP, Girringun NP, Tully Gorge NP, Koombooloomba NP, Japoon NP, Girramay NP, Baldy Mountain FR, Kirrama NP, Hinchinbrook Island NP, Herberton Range NP, Wooroonooran NP, Maalan NP, Paluma Range NP, Ravenshoe FR 1

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.50: Potential habitat for NCA listed species: *Cyathea celebica*.

**Comments:** 7.12.50: From Atherton south to the ranges west of Bluewater.

**Estimated extent:**<sup>1</sup> Pre-clearing 7000 ha; Remnant 2021 7000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.51

**Description:** *Eucalyptus resinifera* (red mahogany), *Syncarpia glomulifera* (turpentine), *E. portuensis* (white mahogany), *Corymbia abergiana* (range bloodwood), +/- *C. leptoloma* (Paluma yellow bloodwood) woodland. Rocky hills on granite and rhyolite in the Paluma-Seaview (south-west) subregion. Dry to moist rainfall zone. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.12.51a: *Corymbia abergiana*, *C. leptoloma*, *Eucalyptus portuensis*, *Syncarpia glomulifera* woodland, with *Banksia aquilonia*, *Allocasuarina littoralis* and *Acacia flavescens*. Rocky hillslopes of the dry rainfall zone. Not a Wetland. (BVG1M: 9d).

7.12.51b: *Eucalyptus resinifera*, *Syncarpia glomulifera*, *Corymbia leptoloma*, *C. intermedia*, *C. abergiana*, *E. portuensis*, medium woodland with *Banksia aquilonia*, *Allocasuarina littoralis*, *Lophostemon confertus* and *Xanthorrhoea johnsonii*. Rocky hillslopes of the dry rainfall zone. Not a Wetland. (BVG1M: 8a).

**Short description:** *Eucalyptus resinifera*, *Syncarpia glomulifera*, *E. portuensis*, *Corymbia abergiana* +/- *C. leptoloma* woodland of rocky hills on granite and rhyolite in the Paluma-Seaview (south-west) subregion

**Supplementary descriptions:** Stanton and Stanton (2005), G156, G157, R156, R157

**Subregions:** 5, (9.4)

**Protected areas:** Paluma Range NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 7.12.51: Potential habitat for NCA listed species: *Corymbia leptoloma*, *Dodonaea uncinata*, *Marsdenia brevifolia*.

**Comments:** 7.12.51: Occurs at lower altitudes and drier areas than 7.12.22, and distinguished from 7.12.22 by its medium (as opposed to tall) stature, and common occurrence of species such as *Corymbia leptoloma* and *C. abergiana*. Similar to 7.12.52 but occurs in the far south-west (rather than mostly the central-west) of the bioregion and has different associated species such as *Corymbia leptoloma* and *C. abergiana*. Distinguished from 7.12.57 by its woodland structure as opposed to a shrubland. Seaview Range in the vicinity of Hidden Valley.

**Estimated extent:**<sup>1</sup> Pre-clearing 3000 ha; Remnant 2021 3000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.52

**Description:** *Eucalyptus resinifera* (red mahogany), *Corymbia intermedia* (pink bloodwood), *Allocasuarina littoralis*, *Syncarpia glomulifera* (turpentine), *E. drepanophylla* (ironbark) +/- *E. reducta* (Queensland stringybark) woodland. Hills on granite and rhyolite, in the dry to moist rainfall zone. Not a Wetland. (BVG1M: 8a).

**Short description:** *Eucalyptus resinifera*, *Corymbia intermedia*, *Allocasuarina littoralis*, *Syncarpia glomulifera*, *E. drepanophylla* +/- *E. reducta* woodland on granite and rhyolite in the dry to moist rainfall zone

**Supplementary descriptions:** Stanton and Stanton (2005), G61, R61; Tracey and Webb (1975), 14b

**Subregions:** 6, 5, 4, (9.4)

**Protected areas:** Koombooloomba South FR, Paluma Range NP, Ravenshoe FR 1, Koombooloomba NP, Kirrama NP, Herberton Range NP, Baldy Mountain FR, Herberton Range CP, Tully Falls NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.52: Potential habitat for NCA listed species: *Gastrodia urceolata*, *Coleus amoenus*, *Vincetoxicum rupicola*, *Zieria obovata*.

**Comments:** 7.12.52: Occurs at lower altitudes and drier areas than 7.12.22, and distinguished from 7.12.22 by its medium (as opposed to tall) stature, and common occurrence of species such as *Eucalyptus drepanophylla* and *E. reducta*. Similar to 7.12.51 but occurs in both the central-west and south of the bioregion (rather than only the far south), and has different associated species such as *E. reducta*. Distinguished from 7.12.57 by its woodland structure as opposed to a shrubland. From west of the Atherton Tablelands south to the Paluma Range.

**Estimated extent:**<sup>1</sup> Pre-clearing 10000 ha; Remnant 2021 10000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.53

**Description:** *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *C. tessellaris* (Moreton Bay ash), +/- *Eucalyptus drepanophylla* (ironbark) +/- *C. intermedia* (pink bloodwood) open forest to woodland, or *E. drepanophylla* woodland. Lowlands, foothills and uplands on granite and rhyolite, of the dry to moist rainfall zone. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.12.53a: *Corymbia clarksoniana* woodland to open forest. Lowlands, foothills and uplands on granite and rhyolite, of the dry to moist rainfall zone. Not a Wetland. (BVG1M: 9c).

7.12.53b: *Corymbia clarksoniana*, *C. tessellaris*, +/- *Eucalyptus drepanophylla*, *E. tereticornis*, *E. platyphylla*, *Lophostemon suaveolens* and *C. dallachiana* woodland and open forest. Coastal lowlands and foothills. Granite and rhyolite. Not a Wetland. (BVG1M: 9c).

7.12.53c: *Eucalyptus drepanophylla*, *Corymbia clarksoniana*, +/- *E. platyphylla*, *C. tessellaris* and *C. dallachiana* woodland. Coastal lowlands and foothills on granite and rhyolite. Not a Wetland. (BVG1M: 9c).

7.12.53d: *Eucalyptus drepanophylla*, *Corymbia intermedia*, *C. clarksoniana*, and *Acacia polystachya* woodland and open woodland. Granite slopes of islands (Palm Island Group). Not a Wetland. (BVG1M: 9c).

7.12.53e: *Eucalyptus drepanophylla* open woodland. Foothills and uplands, of the moist to dry rainfall zone. Granite and rhyolite. Not a Wetland. (BVG1M: 13c).

7.12.53f: *Eucalyptus granitica* and *Corymbia clarksoniana* woodland. Western edge of the bioregion. Granite slopes. Not a Wetland. (BVG1M: 13c).

7.12.53g: *Corymbia clarksoniana* woodland. Slopes of islands (Palm Island). Not a Wetland. (BVG1M: 9c).

<b>Short description:</b>	<i>Corymbia clarksoniana</i> +/- <i>C. tessellaris</i> +/- <i>Eucalyptus drepanophylla</i> +/- <i>C. intermedia</i> open forest to woodland, or <i>E. drepanophylla</i> woodland, of moist to dry lowlands, foothills and uplands on granite and rhyolite
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G144, CG144, R144, G164, R164, R250b, G250b, G226, G180, G150, R150, G48, CG250b; Tracey and Webb (1975), 16e.
<b>Subregions:</b>	5, 1, 9, 6, (7), (4), (3.2), (8), (2), (3), (9.4), (11.1), (9.3), (9.6)
<b>Protected areas:</b>	Girringun NP, Paluma Range NP, Mount Windsor NP, Orpheus Island NP, Dinden NP, Girramay NP, Danbulla NP, Ngalba-bulal NP (CYPAL), Baldy Mountain FR, Mount Cook NP, Macalister Range NP, Little Mulgrave NP, Hinchinbrook Island NP, Kuranda NP, Wooroonooran NP, Davies Creek NP, Danbulla South FR 2, Gadgarra NP, Kuranda West FR, Dinden West FR, Herberton Range NP, Mount Lewis NP, Daintree NP (CYPAL), Kalkajaka NP (CYPAL), Mowbray NP, Ravenshoe FR 1
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.53: Potential habitat for NCA listed species: <i>Crepidium lawleri</i> , <i>Diuris oporina</i> .
<b>Comments:</b>	7.12.53: Distinguished from 7.12.23 by the dominance of <i>Corymbia clarksoniana</i> instead of <i>C. intermedia</i> (usually lower altitude and/or drier zones than 7.12.23). In some areas, vine forest invasion is a threat. Extends the full range of the bioregion but predominantly occurs at the drier northern, western and southern extremes.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 21000 ha; Remnant 2021 20000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.54

**Description:** Complex of open heathland and low open forest. Wind-exposed granite and rhyolite coastal headlands and islands, on skeletal soils. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

7.12.54a: Woodland, low woodland, low forest and shrubland with *Corymbia tessellaris*, *C. intermedia*, *Lophostemon suaveolens*, *Eucalyptus platyphylla*, *Melaleuca viridiflora*, *Acacia crassicaarpa*, *A. flavescens*, *A. celsa*, *A. polystachya*, *Dillenia alata*, *Atractocarpus sessilis* and *Cyclophyllum coprosmoides*. Includes a small area of *Eucalyptus portuensis* low woodland and open forest on Great Palm Island. Steep exposed coastal headlands and hillslopes, on granite and rhyolite. Not a Wetland. (BVG1M: 9c).

7.12.54b: Low heath shrubland and grassland complex of coastal headlands with *Melaleuca viridiflora*, *Allocasuarina littoralis*, *Casuarina equisetifolia*, *Lophostemon suaveolens*, *Acacia holosericea*, *Acacia polystachya*, *Lophostemon grandiflorus*, *Acacia calyculata*, *Thryptomene oligandra*, *Pittosporum ferrugineum*, *Xanthorrhoea johnsonii* and *Alyxia spicata*. Coastal headlands on granite. Not a Wetland. (BVG1M: 29a).

7.12.54c: *Themeda triandra* tussock grassland. Coastal headlands on granite. Not a Wetland. (BVG1M: 29a).

7.12.54d: *Acacia julifera* low open forest and shrubland. Coastal headlands. Granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.54e: *Casuarina equisetifolia* low open forest. Rocky coastal headlands of Orpheus Island. Not a Wetland. (BVG1M: 28a).

7.12.54f: *Themeda triandra* grassland. Coastal headlands on the Black Trevethan Range. Rhyolite. Not a Wetland. (BVG1M: 29a).

7.12.54g: Bare rock. Coastal headlands. Not a Wetland. (BVG1M: 29a).

<b>Short description:</b>	Complex of shrubland and low open forest on wind-exposed granite and rhyolite coastal headlands and islands on skeletal soils
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G104, R104, G187, R187, G59, G233, G254, G207, R207, R59 in part (Qld Herbarium and WTMA (2005) R267a), R260a in part (Qld Herbarium and WTMA (2005) R260ag), G260a in part (Qld Herbarium and WTMA (2005) G260ag).
<b>Subregions:</b>	1, 2, 3, 6, (7), (9), (5)
<b>Protected areas:</b>	Hinchinbrook Island NP, Orpheus Island NP, Family Islands NP, Goold Island NP, Ngalba-bulal NP (CYPAL), Fitzroy Island NP, Daintree NP (CYPAL), Russell River NP, Hope Islands NP (CYPAL), Earl Hill CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	7.12.54: Eucalypt components are distinguished from 7.12.23 by their low wind-sheared nature. (7.12.23 is a medium to tall forest). Distributed patchily along the entire coastal edge of the bioregion. 7.12.54g: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 1000 ha; Remnant 2021 900 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.55

**Description:** Eucalyptus leptophleba (Molloy red box) woodland to open forest. Foothills and uplands on granite and rhyolite, of the dry rainfall zone. Not a Wetland. (BVG1M: 9b).

**Short description:** Eucalyptus leptophleba woodland to open forest of dry foothills and uplands on granite and rhyolite

**Supplementary descriptions:** Stanton and Stanton (2005), G16h, CG16h, R16h; Tracey and Webb (1975), 16h

**Subregions:** 9, 7, (3.2), (4), (9.3)

**Protected areas:** Kalkajaka NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Ngalba-bulal NP (CYPAL), Daintree NP (CYPAL), Davies Creek NP, Bare Hill CP, Mount Windsor NP, Mount Lewis NP, Black Mountain NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.55: Potential habitat for NCA listed species: Dendrobium bigibbum, Habenaria rumphii.

**Comments:** 7.12.55: Distinguished from 7.12.59 by its occurrence in drier zones to the northwest. (7.12.59 is near-coastal in the moist zone). Western parts of the bioregion from the northern end of the Atherton Tablelands to near Helenvale. The northern parts of this ecosystem are in good condition, whilst the southwest areas have suffered some clearing.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.56

**Description:** Corymbia tessellaris (Moreton Bay ash), C. clarksoniana (Clarkson's bloodwood) grassy woodland, open woodland and grassland. Shallow soils on granite, on the Palm Islands. Contains Palustrine. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

7.12.56a: Corymbia tessellaris and C. clarksoniana grassy woodland to low woodland, open woodland and sparse woodland. Shallow soils on granite, on the Palm Islands. Not a Wetland. (BVG1M: 9c).

7.12.56b: Themeda triandra and Imperata cylindrica tussock grassland on steep granite hill slopes of coastal islands, probably created from recent severe burning. Steep hillslopes of coastal islands with Themeda triandra and Imperata cylindrica. Probably derived from 7.12.56a as a result of recent severe burning. Not a Wetland. (BVG1M: 32b).

7.12.56c: Melaleuca dealbata +/- M. leucadendra woodland to tall woodland and open forest. Coastal islands on granite slopes. Palustrine. (BVG1M: 22b).

**Short description:** Corymbia tessellaris, C. clarksoniana grassy woodland, open woodland and grassland on shallow soils on granite on the Palm Islands

**Supplementary descriptions:** Stanton and Stanton (2005), G232, G239, G105

**Subregions:** 1

**Protected areas:** Orpheus Island NP

**Extent in reserves:** High

**Wetland:** Contains Palustrine

**Special values:**

**Comments:** 7.12.56: Possibly threatened by excessive burning (which may change this regional ecosystem to a grassland). Restricted to the Palm Islands.  
7.12.56b: Probably created from recent severe burning.

**Estimated extent:**<sup>1</sup> Pre-clearing 2000 ha; Remnant 2021 2000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.57

**Description:** Shrubland and low woodland mosaic with *Syncarpia glomulifera* (turpentine), *Corymbia abergiana* (range bloodwood), *Eucalyptus portuensis* (white mahogany), *Allocasuarina littoralis* (black sheoak) and *Xanthorrhoea johnsonii* (grasstree). Uplands and highlands on granite and rhyolite, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.12.57a: Shrubland and low woodland mosaic with *Syncarpia glomulifera*, *Corymbia abergiana*, *Eucalyptus portuensis*, *Allocasuarina littoralis* and *Xanthorrhoea johnsonii*. Uplands and highlands on granite and rhyolite, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 9d).

7.12.57c: Shrubland/low woodland (1.5-9m tall) mosaic with variable dominance, often including *Eucalyptus cloeziana*, *Corymbia abergiana*, *E. portuensis*, *E. reducta*, *E. lockyeri*, *C. leichhardtii*, *Callitris intratropica*, *E. atrata*, *E. pachycalyx*, *E. shirleyi*, *E. drepanophylla* and *Homoranthus porteri*, on rhyolite and granite. There is occasionally a very sparse to sparse secondary tree layer of *Corymbia abergiana* and/or *C. stockeri*. A very sparse to sparse tall shrub layer may be present and can include *Persoonia falcata*, *Exocarpos cupressiformis* and *Melaleuca viridiflora* var. *viridiflora*. A sparse to dense lower shrub layer may include *Jacksonia thesioides*, *Acacia calyculata*, *Coelospermum reticulatum*, *Xanthorrhoea johnsonii*, *Acacia humifusa*, *Dodonaea lanceolata* var. *subsessilifolia*, *Grevillea dryandri* subsp. *dryandri*, *Grevillea glossadenia*, *Acacia umbellata* and *Ericaceae* spp. The ground layer may be dominated by species such as *Themeda triandra*, *Xanthorrhoea johnsonii*, *Eriachne pallescens* var. *pallescens*, *Cleistochloa subjuncea*, *Borya septentrionalis*, and *Eriachne* spp. Includes open rocky dominated by herbs and grasses. This RE includes areas of 7.12.65k (rocky areas with shrubby/herbaceous cover) which are too small to map. Rocky slopes on granite and rhyolite. Not a Wetland. (BVG1M: 9d).

- Short description:** Shrubland and low woodland mosaic with *Syncarpia glomulifera*, *Corymbia abergiana*, *Eucalyptus portuensis*, *Allocasuarina littoralis* and *Xanthorrhoea johnsonii* on uplands and highlands on granite
- Supplementary descriptions:** Stanton and Stanton (2005), G55, R55
- Subregions:** 4, 6, 5, (7), (9), (9.3), (9.6), (9.4)
- Protected areas:** Baldy Mountain FR, Danbulla NP, Mount Lewis NP, Millstream Falls NP, Koombooloomba South FR, Herberton Range NP, Ravenshoe FR 1
- Extent in reserves:** Medium
- Wetland:** Not a Wetland
- Special values:** 7.12.57: Threatened species include *Diuris oporina* (NT), *Homoranthus porteri* (V), *Melaleuca uxorum* (E) and *Prostanthera clotteniana* (E). Other species of local significance are *Eucalyptus lockyeri*.  
7.12.57a: Threatened species include *Corymbia leptoloma* (V), *Homoranthus porteri* (V), *Marsdenia brevifolia* (V), *Acacia longipedunculata* (NT), *Dodonaea uncinata* and *Diuris oporina* (NT). Other species of local significance are *Eucalyptus lockyeri*.  
7.12.57c: Habitat for several locally restricted and disjunct species. Threatened species include *Micromyrtus delicata* (E), *Melaleuca sylvana* (E), *Melaleuca uxorum* (E), *Diuris oporina* (NT), *Homoranthus porteri* (V), *Grevillea glossadenia* (V), *Acacia purpureopetala* (V), *Corymbia rhodops* (V) and *Prostanthera clotteniana* (E). Other species of local significance are *Eucalyptus lockyeri*.

<b>Comments:</b>	<p>7.12.57: Occurs on shallow soils as opposed to the fairly deep soils of 7.12.4, and also distinguished from 7.12.4 by its shrubland to low woodland structure. Distinguished from 7.12.51 and 7.12.52 by its shrubland to low woodland structure, and the dominance of <i>Syncarpia glomulifera</i> and <i>Corymbia abergiana</i> rather than <i>Eucalyptus resinifera</i>. Distinguished from 7.12.26 by its shrubland to low woodland structure and presence of <i>C. abergiana</i>. Floristically contains many Einasleigh Uplands species. Many of these species are poorly represented in the Wet Tropics bioregion. Several species occur in southern Queensland and NSW and others have affinities with related taxa from those areas e.g. <i>Chorizema parviflorum</i>, <i>Pultenaea</i> spp., <i>Pseudanthus</i>, <i>Leucopogon</i> and <i>Melaleuca</i> spp. The northern areas of the Mount Molloy-Mt Carbine area on granite appear to be different to the rhyolitic areas south of Mareeba. <i>Callitris intratropica</i> is conspicuous to the north and lacks a well-developed southern aligned shrub component. Rather, it has a dry savannah tropical composition that includes <i>Brachychiton</i> and vine thicket elements. Western edge of the bioregion from Mt Carbine south to the Hidden Valley area west of Paluma. The weed <i>Praxelis clematidea</i> is a problem from the Herberton Range south.</p> <p>7.12.57a: Distinguished from 7.12.57c by the presence of <i>Syncarpia glomulifera</i> (slightly wetter and/or higher landscape). Distinguished from 7.12.30d by the shrubland or low woodland (as opposed to woodland) structure. Western edge of the bioregion from Mt Carbine south to the Hidden Valley area west of Paluma. The weed <i>Praxelis clematidea</i> is a problem from the Herberton Range south.</p> <p>7.12.57c: Distinguished from 7.12.57a by the absence(or very rare presence) of <i>Syncarpia glomulifera</i> (slightly drier and/or more western landscape). Distinguished from 7.12.30d by the shrubland or low woodland (as opposed to woodland) structure. Occurs to the west of Herberton and on the Herberton Range to the NW of Mt. Emerald. The weed <i>Praxelis clematidea</i> is a problem from the Herberton Range south.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 4000 ha; Remnant 2021 4000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.58

<b>Description:</b>	<p><i>Eucalyptus reducta</i> woodland to open forest (6-18m tall). Common associated species include <i>E. granitica</i>, <i>Corymbia dimorpha</i>, <i>C. citriodora</i>, <i>E. cloeziana</i> and occasionally <i>C. intermedia</i>. There is often a sparse secondary tree layer of <i>C. abergiana</i> and/or <i>E. lockyeri</i>. There may be a very sparse tall shrub layer of species such as <i>Acacia flavescens</i>, <i>Persoonia falcata</i>, <i>Allocasuarina littoralis</i> and <i>Acacia simsii</i>, and a very sparse to dense lower shrub layer of <i>Acacia calyculata</i>, <i>Pultenaea millarii</i>, <i>Jacksonia thesioides</i>, <i>Grevillea glossadenia</i>, <i>Grevillea dryandri</i> subsp. <i>dryandri</i>, <i>Homoranthus porteri</i> and <i>Dodonaea lanceolata</i> var. <i>subsessilifolia</i>. The ground layer is often dominated by species such as <i>Themeda triandra</i>, <i>Eriachne</i> spp., <i>Cleistochloa subjuncea</i>, <i>Lomandra longifolia</i>, <i>Mnesithea rottboelliioides</i>, <i>Xanthorrhoea johnsonii</i>, <i>Heteropogon triticeus</i> and <i>Coronidium newcastlianum</i>. Granite and rhyolite. Not a Wetland. (BVG1M: 9d).</p>
<b>Short description:</b>	<i>Eucalyptus reducta</i> +/- <i>E. granitica</i> +/- <i>Corymbia dimorpha</i> +/- <i>C. citriodora</i> woodland to open forest on granite and rhyolite
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G115, R115
<b>Subregions:</b>	4, 9, 6, (9.3), (9.6)
<b>Protected areas:</b>	Mount Lewis NP, Baldy Mountain FR, Millstream Falls NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.58: Potential habitat for NCA listed species: <i>Homoranthus porteri</i> .
<b>Comments:</b>	7.12.58: Distinguished from 7.12.27 by the presence of <i>Corymbia dimorpha</i> , <i>C. citriodora</i> , and <i>Eucalyptus granitica</i> . Drier, western areas including ranges east of Mt Carbine, south of Ravenshoe, and the Mt. Emerald/Herberton range area.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 1000 ha; Remnant 2021 1000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.59

<b>Description:</b>	<i>Eucalyptus leptophleba</i> (Molloy red box) and <i>Corymbia clarksoniana</i> (Clarkson's bloodwood) open forest to woodland. Foothills on granite and rhyolite, of the moist rainfall zone. Not a Wetland. (BVG1M: 9b).
<b>Short description:</b>	<i>Eucalyptus leptophleba</i> and <i>Corymbia clarksoniana</i> open forest to woodland on foothills on granite and rhyolite
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G34, CG34, R34; Tracey and Webb (1975), 16h
<b>Subregions:</b>	8, 9, (3), (7), (6), (2)
<b>Protected areas:</b>	Macalister Range NP, Ngalba-bulal NP (CYPAL), Earl Hill CP, Kuranda NP, Girringun NP, Macalister Range FR, Mowbray NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	7.12.59: Distinguished from 7.12.55 by its near-coastal occurrence in the moist zone (7.12.55 occurs in drier zones to the north-west). Problematic weeds up-slope of the Cook Highway include Guinea grass and Molasses grass. Near-coastal ranges north of Cairns, with an isolated occurrence near Cardwell.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 900 ha; Remnant 2021 800 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	A rare ecosystem threatened by weed invasion and vine forest invasion.

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## Regional ecosystem 7.12.60

<b>Description:</b>	<i>Melaleuca viridiflora</i> (broad leaf tea tree) +/- <i>Corymbia clarksoniana</i> (Clarkson's bloodwood) +/- <i>Eucalyptus platyphylla</i> (poplar gum) woodland to open forest. Granite and rhyolite. Contains Palustrine. (BVG1M: 21a).
Vegetation communities in this regional ecosystem include:	
7.12.60a: <i>Melaleuca viridiflora</i> woodland. Granite and rhyolite. Not a Wetland. (BVG1M: 21a).	
7.12.60b: <i>Corymbia clarksoniana</i> , and/or <i>C. intermedia</i> , +/- <i>Lophostemon suaveolens</i> open woodland to low open woodland with a prominent secondary tree layer of <i>Melaleuca viridiflora</i> , and often with <i>Xanthorrhoea johnsonii</i> in the ground stratum. Granite and rhyolite. Not a Wetland. (BVG1M: 21a).	
7.12.60c: <i>Melaleuca quinquenervia</i> woodland, open forest or shrubland. Granite and rhyolite. Palustrine. (BVG1M: 22a).	
<b>Short description:</b>	<i>Melaleuca viridiflora</i> +/- <i>Corymbia clarksoniana</i> +/- <i>Eucalyptus platyphylla</i> woodland to open forest on granite and rhyolite
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G41, CG41, R41, CR41, G78, R78, G33
<b>Subregions:</b>	5, 6, (1), (4), (2), (9), (7)
<b>Protected areas:</b>	Girringun NP, Koombooloomba South FR, Hinchinbrook Island NP, Goold Island NP, Paluma Range NP, Mount Lewis NP, Mount Mackay NP, Tully Gorge NP, Orpheus Island NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	
<b>Comments:</b>	7.12.60c: This rare vegetation community is extinct.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 1000 ha; Remnant 2021 1000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Endangered
<b>Biodiversity status notes:</b>	Under review

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## Regional ecosystem 7.12.61

**Description:** *Eucalyptus tereticornis* (forest red gum) +/- *E. granitica* (granite ironbark) woodland to open forest. Foothills and uplands on granite and rhyolite, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 9d).

Vegetation communities in this regional ecosystem include:

7.12.61a: *Eucalyptus tereticornis* open forest to tall open forest and woodland. Includes communities ranging from those dominated by *E. tereticornis* to mixtures of that species with *Corymbia intermedia*, *E. drepanophylla*, *Lophostemon suaveolens* and *Allocasuarina torulosa*. Foothills and uplands on granite and rhyolite, of the moist and dry rainfall zones. Not a Wetland. (BVG1M: 9c).

7.12.61b: *Eucalyptus tereticornis*, *Corymbia intermedia*, *E. reducta*, tall open forests and tall woodland with *Allocasuarina torulosa*. Uplands and highlands on granite and rhyolite, of the moist rainfall zone. Not a Wetland. (BVG1M: 9c).

7.12.61c: *Eucalyptus granitica* and/or *E. drepanophylla* and *E. tereticornis*, open grassy woodland. Uplands on granite and rhyolite, of the moist rainfall, zone. Not a Wetland. (BVG1M: 13c).

**Short description:** *Eucalyptus tereticornis* +/- *E. granitica* woodland to open forest of foothills and uplands on granite and rhyolite

**Supplementary descriptions:** Stanton and Stanton (2005), G135, G32, CG32, R32, CR32, R14c, G14c Tracey and Webb (1975), 14c

**Subregions:** 5, 9.3, 6, 9, 1, (11.1), (7), (4), (2), (8), (3), (9.4), (9.6), (3.2)

**Protected areas:** Girringun NP, Hann Tableland NP, Paluma Range NP, Girramay NP, Ngalba-bulal NP (CYPAL), Bowling Green Bay NP, Mount Windsor NP, Daintree NP (CYPAL), Kirrama NP, Tully Gorge NP, Wooroonooran NP, Hinchinbrook Island NP, Goold Island NP, Annan River (Yuku Baja-Muliku) NP, Dinden NP, Kalkajaka NP (CYPAL), Mount Lewis NP, Baldy Mountain FR, Koombooloomba South FR, Macalister Range NP, Bare Hill CP, Herberton Range CP, Koombooloomba NP, Grey Peaks NP, Kuranda NP, Herberton Range NP, Mowbray NP, Kuranda FR, Malbon Thompson FR, Dinden West FR, Millstream Falls NP, Ngalba Bulal NP, Black Mountain NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.61: Potential habitat for NCA listed species: *Arthraxon hispidus*, *Cucumis costatus*, *Dendrobium bigibbum*, *Dendrobium johannis*, *Dodonaea uncinata*, *Coleus gratus*.

**Comments:** 7.12.61: Widely distributed throughout the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 26000 ha; Remnant 2021 25000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Under review



## Regional ecosystem 7.12.62

**Description:** Eucalyptus sp. (ironbark), and/or Corymbia stockeri (blotchy bloodwood), +/- C. hylandii (Hyland's bloodwood) +/- Syncarpia glomulifera (turpentine) +/- E. portuensis (white mahogany) woodland. Granite hillslopes in the north-west of the bioregion, of the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

Vegetation communities in this regional ecosystem include:

7.12.62a: Eucalyptus sp. (ironbark), Corymbia hylandii, C. dallachiana grassy woodland to open woodland. Colluvium in the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

7.12.62b: Corymbia stockeri, Syncarpia glomulifera, Eucalyptus portuensis, C. citriodora woodland to low woodland and open woodland. Granite hillslopes, of the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

7.12.62c: Canarium australicum sparse semi-deciduous woodland. Rocky hillslopes in the dry rainfall zone. Not a Wetland. (BVG1M: 7b).

**Short description:** Eucalyptus sp. and/or Corymbia stockeri +/- C. hylandii +/- Syncarpia glomulifera +/- E. portuensis woodland on dry granite hill slopes in the north-west of the bioregion

**Supplementary descriptions:** Stanton and Stanton (2005), G271, CG271, G194, G272

**Subregions:** 9, (9.3)

**Protected areas:** Daintree NP (CYPAL), Mount Windsor NP, Mount Lewis NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.62: Limited to the northern edges of Mt. Windsor Tableland, western slopes of the Mt Carbine Tableland, and the western slopes of Mt Lewis.

**Estimated extent:**<sup>1</sup> Pre-clearing 600 ha; Remnant 2021 600 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 7.12.63

**Description:** Eucalyptus moluccana (gum-topped box) woodland. Granite and rhyolite. Not a Wetland. (BVG1M: 13d).

**Short description:** Eucalyptus moluccana woodland on granite and rhyolite

**Supplementary descriptions:** Stanton and Stanton (2005), R134, G134

**Subregions:** 6, 4, 5

**Protected areas:** Paluma Range NP, Kirrama NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 7.12.63: Scattered along the western edge of the bioregion from the Atherton Tablelands to west of Paluma.

**Estimated extent:**<sup>1</sup> Pre-clearing 200 ha; Remnant 2021 200 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by degradation associated with grazing and timber harvesting.

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## Regional ecosystem 7.12.64

**Description:** Heathlands with *Xanthorrhoea* spp. (grasstree), *Allocasuarina littoralis* (black sheoak), *Banksia plagiocarpa* (blue banksia) +/- *Leptospermum polygalifolium* (yellow tea tree) +/- *Rhodomyrtus trineura* subsp. *trineura* (native guava), and associated rock pavements. Granite uplands and highlands of Hinchinbrook Island and the vicinity of Bishops Peak. Wet rainfall zone. Contains Palustrine. (BVG1M: 29b).

Vegetation communities in this regional ecosystem include:

7.12.64a: Heathland with *Xanthorrhoea johnsonii*, *X. latifolia*, *Allocasuarina littoralis*, *Banksia plagiocarpa*, *Leptospermum polygalifolium*, *Rhodomyrtus trineura* subsp. *trineura*, *Leucopogon cuspidatus* and *Hibbertia melhanioides*. Ground stratum spp. include *Schoenus sparteus*, *Patersonia glabrata*, *Gahnia insignis* and *Lepidosperma laterale*. Granite uplands and highlands, of the wet rainfall zone. Hinchinbrook Island and the vicinity of Bishops Peak. Not a Wetland. (BVG1M: 29b).

7.12.64b: Rock outcrops and pavements with herbs, and sparse scattered shrubs including *Borya septentrionalis*, *Micraira subulifolia*, *Melaleuca polandii*, *Banksia plagiocarpa*, *Allocasuarina littoralis*, *Drosera adela*, and *D. spatulata*. Granite uplands and highlands of Hinchinbrook Island and the vicinity of Bishops Peak. Not a Wetland. (BVG1M: 29b).

7.12.64c: *Allocasuarina littoralis* low woodland and open forest. Steep rocky granite mountain slopes, and ridge tops of Hinchinbrook Island and Bishops Peak. Not a Wetland. (BVG1M: 28e).

7.12.64d: Bare rock. Steep rocky mountain slopes, and ridge tops of wet granite uplands and highlands on Hinchinbrook Island and Bishops Peak area. Granite and rhyolite. Not a Wetland. (BVG1M: 29b).

7.12.64e: Sedgeland-shrubland complexes with emergent shrubs, fernland with emergent shrubs, shrublands and low woodlands with *Allocasuarina littoralis*, *Melaleuca quinquenervia*, *Rhodomyrtus sericea*, *Melastoma malabathricum* subsp. *malabathricum*, *Gahnia sieberiana*, *Schoenus sparteus*, *Ischaemum australe*, *Dianella* sp., *Drosera* sp. Granite uplands of Hinchinbrook Island and Bishops Peak. Wet rainfall zone. Palustrine. (BVG1M: 34f).

<b>Short description:</b>	<i>Xanthorrhoea</i> spp., <i>Allocasuarina littoralis</i> , <i>Banksia plagiocarpa</i> +/- <i>Leptospermum polygalifolium</i> +/- <i>Rhodomyrtus trineura</i> subsp. <i>trineura</i> heathland and associated rock pavements of granite uplands and highlands of Hinchinbrook Island and near Bishop Peak
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G21 in part (Qld Herbarium and WTMA (2005) G244c), G146 in part (Qld Herbarium and WTMA (2005) G245b), G145 in part (Qld Herbarium and WTMA (2005) G246b), R260a in part (Qld Herbarium and WTMA (2005) R260ae), G260a in part (Qld Herbarium and WTMA (2005) G260ae); Tracey and Webb (1975), 21
<b>Subregions:</b>	6, (2)
<b>Protected areas:</b>	Hinchinbrook Island NP, Girringun NP, Goold Island NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	7.12.64: Habitat for the following threatened plant species (some of which are endemic to Hinchinbrook Island and the Bishops Peak area): <i>Tetramolopium</i> sp. (Mt Bowen D.G.Fell+ DGF1224), <i>Drosera adela</i> , <i>Acacia homaloclada</i> , <i>Comesperma praecelsum</i> , <i>Banksia plagiocarpa</i> .
<b>Comments:</b>	7.12.64: Distinguished from <i>Allocasuarina</i> dominated rock-pavement regional ecosystems by its occurrence on Hinchinbrook island and Bishops Peak area, and common occurrence of <i>Banksia plagiocarpa</i> and <i>Leptospermum polygalifolium</i> and a variety of species endemic to Hinchinbrook Island and Bishops Peak area. Hinchinbrook Island and the vicinity of Bishops Peak. 7.12.64d: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 8000 ha; Remnant 2021 8000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.65

**Description:** Rock pavements or areas of skeletal soil, on granite and rhyolite, mostly of dry western or southern areas, often with shrublands to closed forests of *Acacia* spp. (wattles) and/or *Lophostemon suaveolens* (swamp mahogany) and/or *Allocasuarina littoralis* (black sheoak) and/or *Eucalyptus lockyeri* subsp. *exuta*. Occurs on and associated with rock pavements. Not a Wetland. (BVG1M: 28e).

Vegetation communities in this regional ecosystem include:

7.12.65a: Rock pavement communities of the dry rainfall zone with *Acacia leptostachya*, *Eucalyptus lockyeri* subsp. *exuta*, *Lophostemon confertus*, *L. suaveolens*, *Persoonia falcata*, *Ficus rubiginosa* and *Allocasuarina inophloia*. Occurs on rock pavements of rhyolite ranges. Not a Wetland. (BVG1M: 29b).

7.12.65b: Rock pavement communities of the dry rainfall zone with *Acacia leptostachya*, *Eucalyptus lockyeri* subsp. *exuta*, *Lophostemon confertus*, *L. suaveolens*, *Persoonia falcata*, *Ficus rubiginosa* and *Allocasuarina inophloia*. Far northern areas including Adeline Creek. Occurs on rock pavements of rhyolite and granite ranges. Not a Wetland. (BVG1M: 29b).

7.12.65c: Low woodland and shrubland complex with *Lophostemon suaveolens*, *Corymbia citriodora*, *Eucalyptus lockyeri* subsp. *exuta*, *E. granitica*, *E. drepanophylla* and *E. portuensis*. Shrubs often occur in clumps or groves either as an understorey or scattered shrubland communities within the type and include *Lophostemon suaveolens*, *L. confertus*, *Acacia leptostachya*, *Allocasuarina inophloia* and *Melaleuca viridiflora*. Dry rainfall zone areas of abundant surface rock and shallow or skeletal soils. Not a Wetland. (BVG1M: 9d).

7.12.65d: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 7.12.30d. *Eucalyptus cloeziana*, *Corymbia abergiana*, *C. citriodora*, *E. portuensis*, *E. shirleyi*, *E. lockyeri* subsp. *lockyeri* woodland with a shrubby understorey dominated by *Petalostigma pubescens*, *Bursaria spinosa* subsp. *spinosa*, *Grevillea sessilis*, *Grevillea glauca*, *Allocasuarina inophloia*, and *Xanthorrhoea johnsonii*. Rocky slopes on granite. Not a Wetland. (BVG1M: 28e).

7.12.65e: Complex of open to closed shrublands, low to medium woodlands and forests and grasslands of mountain granite and rhyolite rock pavements. Main component: scrub (*Allocasuarina littoralis*, *Syncarpia glomulifera*, *Lophostemon confertus*), shrubland (*Banksia aquilonia*, *Leptospermum* sp.) and heath (*Xanthorrhoea johnsonii*, *Gahnia* spp., *Dicranopteris linearis*). Granite and rhyolite rock pavements. Not a Wetland. (BVG1M: 28e).

7.12.65f: Rock pavement communities on granite, of the dry rainfall zone with *Acacia leptostachya*, *Eucalyptus lockyeri* subsp. *exuta*, *Lophostemon confertus*, *L. suaveolens*, *Persoonia falcata*, *Ficus rubiginosa* and *Allocasuarina inophloia*. All areas except Adeline Creek and other northern areas. Rock pavement communities on granite. Not a Wetland. (BVG1M: 29b).

7.12.65g: Open to closed scrub and low forest with *Leptospermum neglectum*, *Banksia aquilonia*, *Allocasuarina littoralis*, *A. torulosa* (in valleys), *Acacia celsa* (in valleys), *Syncarpia glomulifera*, and *Rhodomyrtus trineura*. Low forest is confined to the lower sections of deep valleys. Escarpments and rocky knolls and adjacent deep valleys. Not a Wetland. (BVG1M: 28e).

7.12.65h: *Acacia* spp. low closed shrubland and forest. Areas of skeletal soils. Not a Wetland. (BVG1M: 28e).

7.12.65i: *Lophostemon suaveolens* low closed shrubland. Steep rocky slopes on the drier margins of Herbert Gorge. Not a Wetland. (BVG1M: 28e).

7.12.65j: *Bombax ceiba* or *Cochlospermum gillivraei* deciduous low woodland to open woodland. Granite. Not a Wetland. (BVG1M: 7b).

7.12.65k: Granite and rhyolite rock outcrop, of dry western areas, associated with shrublands to closed forests of *Acacia* spp. and/or *Lophostemon* spp. and/or *Allocasuarina* spp. In the Mount Emerald area, shrubs may include *Acacia umbellata*, *Melaleuca borealis*, *Homoranthus porteri*, *Leptospermum neglectum*, *Melaleuca recurva*, *Melaleuca uxorum*, *Grevillea glossadenia*, *Corymbia abergiana*, *Eucalyptus lockyeri*, *Sannantha angusta*, *Pseudanthus ligulatus* subsp. *ligulatus*, *Acacia aulacocarpa*, *Leptospermum amboinense*, *Xanthorrhoea johnsonii* and *Jacksonia thesioides*. Ground-cover species may include *Borya septentrionalis*, *Lepidosperma laterale*, *Eriachne* spp., *Cleistochloa subjuncea*, *Boronia occidentalis*, *Cheilanthes* spp., *Coronidium newcastlianum*, *Schizachyrium* spp., *Tripogon loliiformis*, *Gonocarpus acanthocarpus* and *Eragrostis* spp. Dry western areas. Granite and rhyolite. Not a Wetland. (BVG1M: 29b).

**Short description:** Rock pavement or areas of skeletal soil on granite and/or rhyolite of dry western or southern areas +/- shrublands to closed forests of *Acacia* spp. And/or *Lophostemon suaveolens* and/or *Allocasuarina littoralis* and/or *Eucalyptus lockyeri* subsp. *exuta*

**Supplementary descriptions:** Stanton and Stanton (2005), G195, G21 in part (Qld Herbarium and WTMA (2005) G244b), R21 in part (Qld Herbarium and WTMA (2005) R244b), G131 (Qld Herbarium and WTMA (2005) G247a and G247b), R131 in part (Qld Herbarium and WTMA (2005) R247a, R247b), G182, G132, R131, R132, G16c (Qld Herbarium and WTMA (2005) G224), G276, R276, G202, R202, G260a in part (Qld Herbarium and WTMA (2005) G260ac), R260a in part (Qld Herbarium and WTMA (2005) R260ac); Tracey and Webb (1975), 21

<b>Subregions:</b>	9.3, 5, 6, 4, 9, (9.6), (7), (9.4), (1), (11.1)
<b>Protected areas:</b>	Hann Tableland NP, Paluma Range NP, Girringun NP, Mount Windsor NP, Mount Lewis NP, Daintree NP (CYPAL), Baldy Mountain FR, Ngalba-bulal NP (CYPAL), Bare Hill CP, Dinden NP, Kirrama NP, Danbulla NP, Dinden West FR, Davies Creek NP, Annan River (Yuku Baja-Muliku) NP, Millstream Falls NP, Herberton Range NP, Ravenshoe FR 1
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	7.12.65: Potential habitat for NCA listed species: <i>Acacia purpureopetala</i> , <i>Buckinghamia ferruginiflora</i> , <i>Corymbia leptoloma</i> , <i>Corymbia rhodops</i> , <i>Diuris oporina</i> , <i>Dodonaea uncinata</i> , <i>Grevillea glossadenia</i> , <i>Homoranthus porteri</i> , <i>Melaleuca sylvana</i> , <i>Melaleuca uxorum</i> , <i>Micromyrtus delicata</i> , <i>Coleus amoenus</i> , <i>Prostanthera clotteniana</i> , <i>Pterostylis caligna</i> , <i>Zieria obovata</i> . 7.12.65k: Habitat for several locally restricted and disjunct species. Threatened species include <i>Micromyrtus delicata</i> , <i>Melaleuca sylvana</i> , <i>Melaleuca uxorum</i> , <i>Diuris oporina</i> , <i>Homoranthus porteri</i> , <i>Grevillea glossadenia</i> , <i>Acacia purpureopetala</i> , <i>Corymbia rhodops</i> and <i>Prostanthera clotteniana</i> . Other species of local significance are <i>Eucalyptus lockyeri</i> .
<b>Comments:</b>	7.12.65: Distinguished from other <i>Allocasuarina</i> dominated rock-pavement regional ecosystems by its occurrence in dry western areas. Scattered across the entire length of the bioregion, mainly in western areas and more common in the south. 7.12.65e: Minor components: 13f and 16f. (Webb and Tracey). 7.12.65k: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 16000 ha; Remnant 2021 16000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	Under review

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## Regional ecosystem 7.12.66

**Description:** *Lophostemon confertus* (brush box) low shrubland or low to medium closed forest. Exposed rocky slopes on granite and rhyolite. Not a Wetland. (BVG1M: 28e).

Vegetation communities in this regional ecosystem include:

7.12.66a: Woodland to low woodland, open forest, closed forest, or mosaics of all three with *Lophostemon confertus*, *Alstonia muelleriana*, *Acacia celsa*, *Syncarpia glomulifera*, *Callitris macleayana*, *Allocasuarina littoralis*, *A. torulosa*, *Corymbia intermedia* and a range of vine forest species. Generally occupying steep slopes where the structure can vary widely according to the degree of slope and depth of soil. Not a Wetland. (BVG1M: 28e).

7.12.66b: *Lophostemon confertus* low open forest to open forest. Exposed rocky slopes on granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.66c: *Lophostemon confertus* low closed forest to closed forest. Exposed rocky slopes on granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.66d: *Lophostemon confertus*, *L. suaveolens*, *Corymbia intermedia*, *Eucalyptus crebra*, *E. exserta* and *Heptapleurum actinophyllum* shrubby low open woodland to open woodland. Steep upland slopes of the moist rainfall zone, on granite and rhyolite. Not a Wetland. (BVG1M: 28e).

7.12.66e: Bare rock of exposed rocky slopes on granite and rhyolite, associated with *Lophostemon confertus* shrublands and closed forests. Exposed rocky slopes on granite and rhyolite. Not a Wetland. (BVG1M: 29b).

<b>Short description:</b>	<i>Lophostemon confertus</i> low shrubland or low closed forest on exposed rocky slopes on granite and rhyolite
<b>Supplementary descriptions:</b>	Stanton and Stanton (2005), G108, G110, R108, R110, G65, R65, R196, G196, G260a in part (Qld Herbarium and WTMA (2005) G260ad), R260a in part (Qld Herbarium and WTMA (2005) R260ad); Tracey and Webb (1975), 21
<b>Subregions:</b>	5, 7, 6, (4), (9), (1), (11.1), (9.6), (9.4)
<b>Protected areas:</b>	Paluma Range NP, Girringun NP, Grey Peaks NP, Hinchinbrook Island NP, Wooroonooran NP, Dinden NP, Tumoulin NP, Ravenshoe FR 1, Tully Gorge NP, Kirrama NP, Mount Windsor NP, Girramay NP, Mount Lewis NP, Baldy Mountain FR, Mount Hypipamee NP, Daintree NP (CYPAL), Bare Hill CP, Herberton Range NP, Tully Falls NP, Malbon Thompson CP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	7.12.66: Widely distributed across the bioregion, except the far north. 7.12.66e: Patches of bare rock < 0.2 ha are defined as more open areas of the surrounding ecosystems.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 5000 ha; Remnant 2021 5000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 7.12.67

**Description:** *Gleichenia dicarpa* (coral fern), *Gahnia sieberiana* (red fruit saw sedge), *Palhinhaea cernua* (coral fern), and *Pseudolycopodium densum* (bushy clubmoss) closed fernland. Granite highlands, on Thornton Peak and Mt Bartle Frere. Palustrine. (BVG1M: 34f).

**Short description:** *Gleichenia dicarpa*, *Gahnia sieberiana*, *Palhinhaea cernua* and *Pseudolycopodium densum* closed fernland of granite highlands on Thornton Peak and Mt Bartle Frere

**Supplementary descriptions:** Stanton and Stanton (2005), G158; Tracey and Webb (1975), 10

**Subregions:** 7, 9

**Protected areas:** Wooroonooran NP, Daintree NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 7.12.67: Potential habitat for NCA listed species: *Drosera prolifera*, *Parsonsia bartlensis*.

**Comments:** 7.12.67: This is a wetland. The persistence of this regional ecosystem may be related to fire or shallow soils. Limited to Bartle Frere South Peak and Thornton Peak.

**Estimated extent:**<sup>1</sup> Pre-clearing 60 ha; Remnant 2021 60 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by recreational activities.

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## Regional ecosystem 7.12.68

**Description:** Complex notophyll vine forest. Highlands on granite, of the cloudy wet to moist rainfall zone. Not a Wetland. (BVG1M: 2a).

**Short description:** Complex notophyll vine forest of cloudy moist to wet highlands on granite

**Supplementary descriptions:** Stanton and Stanton (2005), G5a; Tracey and Webb (1975), 5a

**Subregions:** 4, 6

**Protected areas:** Mount Hypipamee NP, Tully Gorge NP, Herberton Range NP, Koombooloomba NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.68: Potential habitat for NCA listed species: *Acianthus sublestus*.

**Comments:** 7.12.68: Very rare, occurs on western and southern parts of the Atherton Tablelands and there is a small occurrence south of Koombooloomba Dam.

**Estimated extent:**<sup>1</sup> Pre-clearing 200 ha; Remnant 2021 200 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Under review

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## Regional ecosystem 7.12.69

**Description:** *Eucalyptus drepanophylla* (ironbark) and/or *E. granitica* +/- *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *C. erythrophloia* (red bloodwood) woodland. Uplands on granite and rhyolite, of the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

Vegetation communities in this regional ecosystem include:

7.12.69a: *Eucalyptus drepanophylla* and/or *E. granitica* and *Corymbia erythrophloia* woodland to low woodland. Uplands, of the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

7.12.69b: *Eucalyptus drepanophylla*, *Corymbia clarksoniana* low woodland, with mixed *Acacia* spp. Uplands, of the dry rainfall zone. Not a Wetland. (BVG1M: 13c).

**Short description:** *Eucalyptus drepanophylla* and/or *E. granitica* +/- *Corymbia clarksoniana* +/- *C. erythrophloia* woodland on uplands on granite and rhyolite

**Supplementary descriptions:** Stanton and Stanton (2005), G69, R69, G49, R49

**Subregions:** 9, 5, (7), (4), (9.3), (9.4)

**Protected areas:** Mount Lewis NP, Paluma Range NP, Dinden West FR, Dinden NP, Danbulla NP, Millstream Falls NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 7.12.69: Potential habitat for NCA listed species: *Dendrobium bigibbum*.

**Comments:** 7.12.69: Western edge of the bioregion, from just north of Mt Carbine, south to Bluewater.

**Estimated extent:**<sup>1</sup> Pre-clearing 700 ha; Remnant 2021 700 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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<sup>1</sup> Estimated extent is from the current released version of the pre-clearing and remnant regional ecosystem mapping. Figures are rounded for simplicity. For more precise estimates, including breakdowns by tenure and other themes see remnant vegetation in Queensland (<https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/remnant-vegetation/>)

<sup>2</sup> Superseded: Revision of the regional ecosystem classification removed this regional ecosystem code from use. It is included in the regional ecosystem description database because the RE code may appear in older versions of RE mapping and the Vegetation Management regulation.