

### Regional ecosystem 3.1.1

**Description:** *Rhizophora stylosa* (stilted mangrove) or *Bruguiera* spp. closed forest. Occurs in downstream to intermediate estuarine areas in the mid to low intertidal zones throughout the bioregion. Intertidal. (BVG1M: 35a).

Vegetation communities in this regional ecosystem include:

3.1.1a: Closed forest to low closed forest of *Rhizophora stylosa* (stilted mangrove) +/- *Bruguiera gymnorhiza* (orange mangrove) +/- *B. cylindrica* (reflexed orange mangrove) +/- *Avicennia marina* (grey mangrove).

Emergent *A. marina* and *R. stylosa* can occur. A sub canopy of similar species can occur but more commonly a very open shrub layer of canopy species and a range of other mangrove species is present. Occurs in downstream estuarine areas in the mid to low intertidal zones throughout the bioregion. Intertidal. (BVG1M: 35a).

3.1.1b: Closed forest often containing *Bruguiera parviflora* and/or *B. gymnorhiza* (orange mangrove). Occurs in downstream to intermediate estuarine areas in the mid to high intertidal zones. Intertidal. (BVG1M: 35a).

3.1.1c: Open forest of *Heritiera littoralis* (looking-glass mangrove) +/- *Melaleuca cajuputi* (cajuput). An *Acrostichum speciosum* (mangrove fern) fern land often dominates the ground layer. Occurs in intermediate estuarine areas in the high intertidal zones. Intertidal. (BVG1M: 35a).

**Short description:** *Rhizophora stylosa* and/or *Bruguiera* spp. closed forest

**Supplementary descriptions:**

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

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Endeavour River NP, Apudthama NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Bromley (Ampulin) NP (CYPAL), Wuthathi (Saunders Islands) NP (CYPAL), Turtle Group NP, Three Islands Group NP, Flinders Group NP (CYPAL), Howick Group NP (CYPAL), Jardine River NP, Possession Island NP, Piper Islands NP (CYPAL), Wuthara Island NP (CYPAL), Endeavour River RR, Marpa National Park (CYPAL), Yamarrinh Wachangan Islands (Denham Group) NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Round Island CP, Lizard Island NP

**Extent in reserves:** Medium

**Wetland:** Intertidal

**Special values:** 3.1.1: Highest structural and floristic development of mangroves in Australia. Important habitat for estuarine crocodiles, and vulnerable butterfly *Hypochrysops apollo* and two other jewel butterflies *H. narcissus* and *H. apelles*. Potential habitat for vulnerable plant species *Crudia papuana* and *Dendrobium johannis*.

**Comments:** 3.1.1: Lines tidal rivers. Vegetation communities 3.1.1b & 3.1.1c only occur in small areas throughout the bioregion. Occurs in mainly low intertidal zones throughout the bioregion.  
3.1.1a: Also mapped in the Torres Strait, where it can occur as a *Pemphis acidula* (digging-stick tree) and *Osbornia octodonta* (myrtle mangrove) shrubland. Occurs in tidal zones throughout the bioregion.  
3.1.1b: It occurs in a zone landward of the *Rhizophora* spp. closed forest on estuarine mudflats and alluvial stream banks flooded by spring tides to shallow depths (<0.5m), but is not always present. The substrate is firm, fine-grained mud, which is constantly reworked and tunnelled by burrowing organisms. Occurs close association with 3.1.1a and around the extent of the coastline but is not always present.  
3.1.1c: Where it occurs this community occupies a narrow band on the landward side of more typical mangrove communities where there is some freshwater seepage. *Nypa fruticans* (mangrove palm) also occurs in the tidal reaches of the Wenlock, Ducie, Pascoe and McIvor Rivers. Occurs in tidal zones near Cooktown and in the Torres Strait Islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 82000 ha; Remnant 2021 82000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.1.2

**Description:** Low open forest of *Avicennia marina* (grey mangrove). Occurs in downstream to intermediate estuarine areas in the mainly high intertidal zones throughout the bioregion. Intertidal. (BVG1M: 35a).

Vegetation communities in this regional ecosystem include:

3.1.2a: Low open forest of *Avicennia marina* (grey mangrove). *Ceriops tagal* (yellow mangrove) and *Lumnitzera racemosa* (black mangrove) can occur in a sub-canopy while a sparse shrub layer can contain juvenile *A. marina*. The sparse ground layer can include *Sporobolus virginicus* (marine couch). Occurs in downstream to intermediate estuarine areas in the mainly high intertidal zones throughout the bioregion. Intertidal. (BVG1M: 35a).

3.1.2b: Semi deciduous transitional vine forest with *Xylocarpus granatum* (cannonball mangrove) and *Manilkara kauki* (Wonga nut). Occurs on calcareous sandy coral deposits within the tidal zone. Intertidal. (BVG1M: 35a).

**Short description:** *Avicennia marina* low open forest

**Supplementary descriptions:**

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

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Endeavour River NP, Cape Melville NP (CYPAL), Flinders Group NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Three Islands Group NP, Possession Island NP, Marpa National Park (CYPAL), Round Island CP

**Extent in reserves:** High

**Wetland:** Intertidal

**Special values:** 3.1.2a: Provides estuarine wetland habitat.

**Comments:** 3.1.2: Occurs in upper tidal zones around Bathurst Bay and Pormpuraaw as well as across the Torres Strait Islands.  
3.1.2a: On Biogu Island can occur as a tall open forest. Occurs in upper tidal zones around Bathurst Bay and Pormpuraaw as well as across the Torres Strait Islands.  
3.1.2b: Closely associated with open forests of *Avicennia marina* (RE 3.1.2a). Restricted to Sassie Island in the Torres Strait.

**Estimated extent:**<sup>1</sup> Pre-clearing 27000 ha; Remnant 2021 26000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:** Under review

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### Regional ecosystem 3.1.3

**Description:** Low open forest to closed forest of *Ceriops tagal* (yellow mangrove) +/- *Avicennia marina* (grey mangrove) +/- *Excoecaria agallocha* (milky mangrove). *A. marina* can also occur as an emergent. A very sparse to dense mixed shrub layer can often include *C. tagal*, *Bruguiera* spp. and *Xylocarpus* spp. The very sparse ground layer can contain patches of *Sporobolus virginicus* (marine couch) and *Acrostichum* spp. (mangrove ferns) or small clumps of *Batis argillicola*. Occurs in downstream to intermediate estuarine areas in the high to mid intertidal zones throughout the bioregion. Intertidal. (BVG1M: 35a).

**Short description:** *Ceriops tagal* and/or *C. australis* +/- *Avicennia marina* low open forest

**Supplementary descriptions:** Neldner and Clarkson (in prep), 132

**Subregions:** 7, 4, 1, 2, 9, (6), (3), (5), (8), (2.1)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Endeavour River NP, Apudthama NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Bromley (Ampulin) NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Lama Lama NP (CYPAL), Turtle Group NP, Jardine River NP, Kutini-Payamu (Iron Range) NP (CYPAL), Howick Group NP (CYPAL), Lizard Island NP, Endeavour River RR

**Extent in reserves:** Medium

**Wetland:** Intertidal

**Special values:** 3.1.3: Potential habitat for NCA listed species: *Brownlowia argentata*, *Crudia papuana*, *Dolichandrone spathacea*, *Sarcolobus vittatus*.

**Comments:** 3.1.3: Occurs on intermediate tidal zones throughout the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 42000 ha; Remnant 2021 42000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.1.4

**Description:** Low open forest to low closed forest of *Excoecaria agallocha* (milky mangrove) +/- *Aegiceras corniculatum* (black mangrove) +/- *Thespesia populnea* (Pacific rosewood). *A. corniculatum* can be dominant when present. *E. agallocha* and *Avicennia marina* (grey mangrove) can sometimes be emergent. Similar species often occur in a very sparse sub canopy and/or shrub layer. The ground layer is often bare tidal mud with scattered seedlings. Occurs in upstream to intermediate estuarine areas in the mainly high intertidal zones throughout the bioregion. Intertidal. (BVG1M: 35a).

**Short description:** *Excoecaria agallocha* +/- *Aegiceras corniculatum* low open forest

**Supplementary descriptions:** Neldner and Clarkson (in prep), 160. Stanton, Fell & Gooding (2008), E23a.

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

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Endeavour River NP, Cape Melville NP (CYPAL), Lama Lama NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Intertidal

**Special values:** 3.1.4: Provides estuarine wetland habitat.

**Comments:** 3.1.4: Common in Princess Charlotte Bay area. Also occurs as scattered communities in coastal areas including the Torres Strait.

**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 3.1.5

**Description:** Closed tussock to tussock grassland of *Sporobolus virginicus* (marine couch) +/- *Fimbristylis* spp. A number of grasses, sedges and halophytic forbs can be scattered though the community. Scattered emergent mangroves can also occur. Occurs on coastal plains subject to coastal inundation. Intertidal. (BVG1M: 35b).

**Short description:** *Sporobolus virginicus* closed tussock grassland on coastal plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 185; Stanton, Fell & Gooding (2008), E26a.

**Subregions:** 9, 7, 8, (3), (6), (2), (1), (4), (2.1)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Lama Lama NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Intertidal

**Special values:** 3.1.5: Provides estuarine wetland habitat.

**Comments:** 3.1.5: Lakefield and on west coast. Also on some Torres Strait islands. Scattered clumps of *Parkinsonia aculeata*\* (*parkinsonia*) shrubs may occur in some areas on the west coast.

**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 3.1.6

**Description:** Bare salt pans with scattered patches dominated by *Sporobolus virginicus* (marine couch) and *Tecticornia* spp. (samphire), particularly on raised areas and margins. Occurs on salt plains and saline flats. Intertidal. (BVG1M: 35b).

Vegetation communities in this regional ecosystem include:

3.1.6a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.1.6. Bare salt pans with scattered patches dominated by *Sporobolus virginicus* (marine couch) and *Tecticornia* spp. (samphire), particularly on raised areas and margins. Occurs on salt plains and saline flats. Intertidal. (BVG1M: 35b).

3.1.6b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.1.7. Intermittent seasonal salt flats or freshwater swamps. In the dry season this regional ecosystem is dominated by bare salt pans with scattered patches dominated by halophytic shrubs such as *Tecticornia* spp. (samphire). During the wet season this regional ecosystem is dominated by a sedgeland to tall sedgeland of *Schoenoplectus subulatus* and *Eleocharis dulcis* (water chestnut). Occurs in the mouth of drainage depressions which are low enough to be inundated by salt water at high tides in the dry season, but are inundated with freshwater in the wet season. Not a Wetland. (BVG1M: 35b).

3.1.6x1: *Batis argillicola* dwarf shrubland usually with other halophytic species like *Sesuvium portulacastrum* and *Tecticornia indica*. Mangrove species such as *Avicennia marina* and *Aegialitis annulata* may also appear as juveniles as well as scattered emergents. The ground layer is generally bare mud though clumps of *Sporobolus virginicus* often occurs. Occurs on salt pans and saline flats. Intertidal. (BVG1M: 35b).

<b>Short description:</b>	Sparse herbland or bare salt pans on salt plains and saline flats
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 194; Stanton, Fell & Gooding (2008), E25a, E25b.
<b>Subregions:</b>	9, 7, 4, 2, 6, (3), (1), (8), (5), (2.1), (2.4)
<b>Protected areas:</b>	Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Lama Lama NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Apudthama NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Kutini-Payamu (Iron Range) NP (CYPAL), Endeavour River NP, Bromley (Ampulin) NP (CYPAL), Flinders Group NP (CYPAL), Turtle Group NP, Three Islands Group NP, Howick Group NP (CYPAL), Endeavour River RR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Intertidal
<b>Special values:</b>	3.1.6: Provides estuarine wetland habitat. 3.1.6a: Provides estuarine wetland habitat.
<b>Comments:</b>	3.1.6: Two island variants are <i>Sesuvium portulacastrum</i> closed herblands +/- <i>Pemphis acidula</i> emergents, which may dominate some rock platforms (Stoddart and Fosberg 1991) and a woody forbland dominated by <i>Suriana maritima</i> with <i>Myoporum acuminatum</i> and <i>Capparis</i> sp. found on some shingle beaches. 3.1.6a has been amalgamated into this RE. Occurs across the bioregion on marine flats.  3.1.6a: Two island variants are <i>Sesuvium portulacastrum</i> closed herblands +/- <i>Pemphis acidula</i> emergents, which may dominate some rock platforms (Stoddart and Fosberg 1991) and a woody forbland dominated by <i>Suriana maritima</i> with <i>Myoporum acuminatum</i> and <i>Capparis</i> sp. found on some shingle beaches. Occurs across the bioregion on marine flats. 3.1.6x1: Occurs across the bioregion on marine flats, though often too small in area to be mappable.
<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 3.1.7

**Description:** Intermittent seasonal saltflats or freshwater swamps. In the dry season this regional ecosystem is dominated by bare salt pans with scattered patches dominated by halophytic shrubs such as *Tecticornia* spp. (samphire). During the wet season this regional ecosystem is dominated by a sedgeland to tall sedgeland of *Schoenoplectus subulatus* and *Eleocharis dulcis* (water chestnut). Occurs in the mouth of drainage depressions which are low enough to be inundated by salt water at high tides in the dry season, but are inundated with freshwater in the wet season. Intertidal. (BVG1M: 35b).

**Short description:** Intermittent dry season saltflats and wet season freshwater swamps.

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), E27a, E27b.

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

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Intertidal

**Special values:** 3.1.7: Important estuarine habitat for estuarine crocodile, migratory waders, Jabiru and Sarus Cranes. Cultural resource for traditional fishing and hunting.

**Comments:** 3.1.7: Vegetation community 3.1.6b has been amalgamated into this RE. Restricted to the west coast of the bioregion and Saibai and Boigu islands in Torres Strait, particularly on the coastal plain south of the Archer River. Heavily impacted by grazing from feral deer on Torres Strait islands, and heavily disturbed by feral pigs on the Archer River coastal plain.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Rare ecosystem < 1000ha pre-clearing extent subjected to grazing by feral deer and disturbance by feral pigs. Under threat from sea level rise

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## Regional ecosystem 3.2.1

**Description:** Evergreen to semi-evergreen notophyll vine forest dominated by *Buchanania arborescens* (satinwood), *Syzygium forte* (white apple), *Acacia polystachya* (wattle), *Terminalia muelleri* (Australian almond), *Mimusops elengi* (tanjong) and *Sersalisia sericea* (wild prune). *Xanthostemon youngii*, (red Penda), also commonly occurs in this regional ecosystem and dominates the canopy in some areas. There is a mid-dense to dense uneven canopy and a sparse to mid-dense shrub/low tree layer usually present and often includes *Eugenia reinwardtiana* (Cedar Bay cherry), *Drypetes deplanchei* (yellow tulipwood), *Wilkia rigidifolia*, *Memecylon pauciflorum*, *Atractocarpus sessilis* (false Gardenia) and *Tabernaemontana orientalis* (banana bush). *Elaeodendron melanocarpum* and *Ixora timorensis* are frequent components of the shrub/low tree layer. The ground layer is very sparse and composed of a variable mix of herb species. Vines such as *Tetracera nordtiana* var. *nordtiana* (fire vine), *Cansjera leptostachya* and *Alyxia spicata* (chain fruit) are common in the tree and shrub layers. Occurs on coastal dunes and beach ridges in dunefields. Not a Wetland. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

3.2.1a: [RE not in use]<sup>2</sup>: This vegetation unit is now mapped as 3.2.1. *Syzygium forte* subsp. *forte*, *Terminalia muelleri* (Australian almond), *Mimusops elengi* (tanjong), *Buchanania arborescens* (satinwood), *Acacia polystachya*, *Drypetes deplanchei* and *Manilkara kauki* dominate the mid-dense to dense uneven canopy (7-25m tall). *Xanthostemon youngii*, frequently occurs in this regional ecosystem and dominates the canopy in some areas. A variety of species occur as a mid-dense to dense sub-canopy layer (5-20m tall). A sparse to mid-dense shrub/low tree layer (0.5-5m tall) is usually present with *Atractocarpus sessilis* and *Eugenia reinwardtiana* the primary species. *Wilkia rigidifolia*, *Cyclophyllum coprosmoides*, *Memecylon pauciflorum*, *Rhodomyrtus macrocarpa*, *Elaeodendron melanocarpum* and *Ixora timorensis* are frequent components of the shrub/low tree layer. The ground layer is very sparse and composed of a variable mix of herb species. Vines such as *Tetracera nordtiana* var. *nordtiana*, *Cansjera leptostachya* and *Alyxia spicata* are common in the tree and shrub layers. *Drynaria* spp. And the epiphytic orchid *Dendrobium discolor* occur occasionally. Occurs on coastal dunes and beach ridges. Not a Wetland. (BVG1M: 3a).

3.2.1b: [RE not in use]<sup>2</sup>: This vegetation unit is now mapped as 3.2.13. This vegetation community is dominated by a larger proportion of deciduous species in the mid-dense to dense, uneven canopy (8-20m tall) than 3.2.1a. *Garuga floribunda* var. *floribunda*, *Millettia pinnata*, *Terminalia muelleri* (Australian almond) and *Vitex acuminata* are the dominant deciduous species. The dominant evergreen species include *Ganophyllum falcatum*, *Mimusops elengi* (tanjong), *Amorphospermum antilogum*, *Celtis paniculata*, *Cupaniopsis anacardioides*, *Polyalthia nitidissima* and *Sersalisia sericea*. The sparse to mid-dense shrub/low tree layer (1-8m tall) contains a similar group of species to 3.2.1a. A large number of species of vines are present in both the canopy and low tree layer. The ground layer is very sparse. Occurs on coastal dunes and beach ridges. Not a Wetland. (BVG1M: 3a).

**Short description:** Evergreen notophyll vine forest in coastal dunefield systems

**Supplementary descriptions:**

**Subregions:** 1, 4, 2, 6, (3), (5), (9)

**Protected areas:** Cape Melville NP (CYPAL), Apudthama NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Turtle Group NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.1: High numbers of endemic plant species. The vulnerable plant species *Myrmecodia beccarii* and near threatened species *Syzygium buettnerianum* occur in this ecosystem.

**Comments:** 3.2.1: Vegetation community 3.2.1a was amalgamated into this RE. Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). Stanton & Fell rainforest type 18 is the best development of this RE on Cape York Peninsula.  
3.2.1a: This vegetation community has been moved to 3.2.1.  
3.2.1b: This vegetation community has been moved to 3.2.13a. Vegetation community 3.2.1b occurs between Starke and Cape Melville.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

## Regional ecosystem 3.2.2

**Description:** Semi-deciduous vine thicket. Dominated by a mixture of deciduous and evergreen species with *Canarium australianum* (scrub turpentine), *Terminalia* spp., *Cochlospermum gillivraei* (kapok), *Erythrina vespertilio* (batswing coral tree), *Ficus virens* (white fig), *Millettia pinnata* the principal deciduous species. The evergreen species often include *Syzygium suborbiculare* (Lady apple), *Celtis philippensis*, *Litsea glutinosa* (brown bollywood), *Neofabricia myrtifolia* (yellow teatree), *Thryptomene oligandra* and *Cupaniopsis anacardioides* (beach tamarind). Occasional emergents are present. A subcanopy and/or shrublayer usually includes *Exocarpos latifolius* (scrub cherry), *Eugenia reinwardtiana* (Cedar Bay cherry), *Manilkara kauki* (Wongai plum) and *Drypetes deplanchei* (yellow tulipwood) as well as canopy species. A number of thin vines such as *Abrus precatorius*, *Cayratia cardiophylla*, *Hoya* spp. and *Cissus adnata* are present in both the canopy and lower layers. The ground layer is very sparse, and composed of predominantly graminoids. Occurs on beach dunes and ridges on mainland and islands. Not a Wetland. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

3.2.2a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.2. Semi-deciduous vine thicket. Dominated by a mixture of deciduous and evergreen species with *Canarium australianum* (scrub turpentine), *Terminalia* spp., *Cochlospermum gillivraei* (kapok), *Erythrina vespertilio* (batswing coral tree), *Ficus virens* (white fig), *Millettia pinnata* the principal deciduous species. The evergreen species often include *Syzygium suborbiculare* (Lady apple), *Celtis philippensis*, *Litsea glutinosa* (brown bollywood), *Neofabricia myrtifolia* (yellow teatree), *Thryptomene oligandra* and *Cupaniopsis anacardioides* (beach tamarind). Occasional emergents are present. A subcanopy and/or shrublayer usually includes *Exocarpos latifolius* (scrub cherry), *Eugenia reinwardtiana* (Cedar Bay cherry), *Manilkara kauki* (Wongai plum) and *Drypetes deplanchei* (yellow tulipwood) as well as canopy species. A number of thin vines such as *Abrus precatorius*, *Cayratia cardiophylla*, *Hoya* spp. And *Cissus adnata* are present in both the canopy and lower layers. The ground layer is very sparse, and composed of predominantly graminoids. Occurs on coastal dunes and beach ridges. Not a Wetland. (BVG1M: 3a).

3.2.2b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.28b. Semi-deciduous notophyll vine forest often with *Manilkara kauki* (Wongai plum), *Mimusops elengi* (tanjong), *Terminalia* spp., *Sterculia quadrifida* (peanut tree), *Premna serratifolia*, *Acacia crassicaarpa* (spoon tree), *Drypetes deplanchei* (yellow tulipwood) and *Millettia pinnata* (pongam). A range of species can be locally dominant including *Erythrina variegata* (bat-wing coral tree), *Bombax ceiba* (kapok), *Mimusops elengi* (red coondoo) and *Neofabricia myrtifolia*. Occurs on prograding and degrading sand dunes and ridges. Not a Wetland. (BVG1M: 3a).

<b>Short description:</b>	Semi-deciduous vine thicket to vine forest on beach dunes and ridges
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 31; Stanton, Fell & Gooding (2008), D1c, D2p, D2y, D2z.
<b>Subregions:</b>	9, 7, 4, (3), (8), (5), (2.1)
<b>Protected areas:</b>	Flinders Group NP (CYPAL)
<b>Extent in reserves:</b>	Low
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.2.2: Potential habitat for NCA listed species: <i>Alectryon repandodentatus</i> , <i>Arenga australasica</i> , <i>Dendrobium bigibbum</i> , <i>Psydrax reticulata</i> . 3.2.2b: This vegetation community supports the threatened species <i>Dendrobium bigibbum</i> (Cooktown Orchid), <i>Psydrax reticulata</i> and <i>Alectryon repandodentatus</i> .
<b>Comments:</b>	3.2.2: High diversity of vascular plants, many with restricted distributions. West coast of bioregion and Torres Strait. Areas near settlements and road access are degraded by weeds such as rubber vine and calotropis. 3.2.2a: West coast of bioregion and Torres Strait. 3.2.2b: Restricted to Torres Strait islands.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 21000 ha; Remnant 2021 21000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	



### Regional ecosystem 3.2.3

**Description:** *Melaleuca dealbata* and/or *Lophostemon suaveolens* open forest to woodland, commonly with *Acacia crassicarpa*, *Acmena hemilampra*, *Asteromyrtus brassii*, *Deplanchea tetraphylla* and *Syzygium suborbiculare*. *Melaleuca cajuputi* may occasionally replace *Melaleuca dealbata* in the canopy layer. The sparse sub canopy contains canopy species with *Cyclophyllum coprosmoides*, *Dillenia alata*, *Pandanus* spp. and *Acacia* spp. Also common. The very sparse to mid-dense shrub layer contains canopy species with *Hibbertia* spp. And *Alyxia spicata* common. The dense to sparse ground layer contains various sedge and grass species and *Lomandra* spp. Occurs in swales behind frontal dunes or in dunefields. Palustrine. (BVG1M: 22b).

Vegetation communities in this regional ecosystem include:

3.2.3a: [RE not in use]<sup>2</sup>: This vegetation community now mapped as 3.2.3. Open forest of *Melaleuca dealbata* (often mono-specific). There is a very sparse low shrublayer with scattered *M. dealbata*, *M. viridiflora* (broad-leaved teatree), *Livistona muelleri* (cabbage palm) and *Pandanus* spp. The sparse ground layer is often dominated by *Chrysopogon rigidus* or *Cyperus* spp. Occurs in dune swales adjacent to frontal dunes. Palustrine. (BVG1M: 22b).

3.2.3b: [RE not in use]<sup>2</sup>: This vegetation community now mapped as 3.2.3. Open forest to low open forest of *Lophostemon suaveolens* (swamp mahogany) +/- *Acmena hemilampra* +/- *Asteromyrtus brassii*. Where present *Melaleuca saligna* (paperbark) is usually co-dominant. The sparse subcanopy often has *L. suaveolens*, *Dillenia alata* (red beech), *Acacia crassicarpa* (spoon tree), *Livistona* spp. and *Dodonaea polyandra* (hopbush). *Hibbertia banksii* (Guinea flower) is often dominant in a sparse to mid-dense shrublayer. The often dense ground layer can be dominated by *Lomandra* spp. and *Blechnum* spp. while *Melastoma malabathricum* and *Scleria* spp. are often present. Occurs on deep uniform bleached sand and is restricted to areas that may be subject to periodic water logging in a few sheltered swales in dunefields. Palustrine. (BVG1M: 22b).

**Short description:** *Melaleuca dealbata* or *Lophostemon suaveolens* open forest in dune swales

**Supplementary descriptions:**

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

**Protected areas:** Possession Island NP, Cape Melville NP (CYPAL)

**Extent in reserves:** Low

**Wetland:** Palustrine

**Special values:**

**Comments:** 3.2.3: In some areas *Melaleuca cajuputi* may be dominant. West coast of the bioregion and in the Torres Strait Islands.

3.2.3a: West coast of the bioregion and Muralag and Moa islands in the Torres St. The alien scandent shrub, *Cryptostegia grandiflora* (rubber vine) was present at all sites sampled.

3.2.3b: Mainly on dunefields in the Torres Strait.

**Estimated extent:**<sup>1</sup> Pre-clearing 18000 ha; Remnant 2021 18000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.2.4

**Description:** Open forest to woodland dominated by *Melaleuca* spp. often with *Lophostemon suaveolens* (swamp mahogany). A very sparse sub-canopy tree layer may be present and the shrub layer ranges from very sparse to mid-dense. Occurs in regularly flooded dune swales, and swampy areas behind beach ridges. Palustrine. (BVG1M: 22b).

Vegetation communities in this regional ecosystem include:

- 3.2.4a: *Melaleuca leucadendra* (weeping paperbark) open forest with *M. dealbata* often present as a subdominant canopy tree. *Lophostemon suaveolens* is occasionally present in the canopy. Where present a sparse subcanopy can contain canopy species and *Dillenia alata*. Scattered canopy species can exist in a very sparse shrub layer. A range of grass and sedge species occur in an often dense ground layer. Occurs in regularly flooded dune swales, and swampy areas behind beach ridges. Palustrine. (BVG1M: 22b).
- 3.2.4b: *Melaleuca quinquenervia* (broad-leaved paperbark) open forest with *Lophostemon suaveolens* and *Xanthostemon crenulatus* occasionally subdominant. A very sparse to sparse sub-canopy tree layer can include canopy species and occasionally *Acacia crassicaarpa* (spoon tree) and *Dillenia alata* (red beech). A sparse shrub layer is commonly contains *M. quinquenervia* and other canopy species. The ground layer is sparse to dense, with sedges and other hydrophilic species dominating the wettest areas. Associated with swamps in dunefields. Palustrine. (BVG1M: 22a).
- 3.2.4c: *Melaleuca saligna* open forest. Occurs on dune swales. Palustrine. (BVG1M: 22b).
- 3.2.4d: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.4c. *Melaleuca saligna* open forest (15-20m). Occurs on dune swales. Palustrine. (BVG1M: 22b).
- 3.2.4e: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.6. A mid-dense to dense, even canopy (12-30m tall) is dominated by a variety of species including *Buchanania arborescens* (native mango), *Syzygium forte* subsp. *potamophilum*, *Deplanchea tetraphylla*, *Lophostemon suaveolens* and *Dillenia alata*. Scattered emergent trees of *Melaleuca* spp. up to 33m in height are common, and in places form a sparse canopy. A sparse to mid-dense, sub-canopy tree layer (4-25m tall) is usually present. *Dillenia alata* is the most frequent species in this layer. The palms, *Ptychosperma elegans*, *P. macarthurii*, *Licuala ramsayi* and *Archontophoenix alexandrae* are conspicuous at some sites. Deciduous trees are generally infrequent. A variable shrub/low tree layer is present with *Atractocarpus sessilis*, *Licuala ramsayi*, *Alyxia spicata*, *Calophyllum sil*, *Dillenia alata*, *Hydriastele wendlandiana* and *Tabernaemontana orientalis* the most commonly encountered species. The ground layer is usually very sparse. Scattered ferns, *Lindsaea* spp., *Lygodium flexuosum* and *Nephrolepis hirsutula* may be locally abundant. Vines such as *Flagellaria indica*, *Opilia amentacea* and *Smilax australis* are occasionally present. Associated with swamps and dune swales. Palustrine. (BVG1M: 4a).
- 3.2.4x1: *Barringtonia acutangula* +/- vine thicket species low woodland to open forest. Occurs in swamps and swales in dunefields. Palustrine. (BVG1M: 28b).

**Short description:** *Melaleuca* spp. open forest in dune swales and swampy areas

**Supplementary descriptions:**

**Subregions:** 7, 2, 9, 4, 1, 3

**Protected areas:** Cape Melville NP (CYPAL), Possession Island NP, Wuthathi (Shelburne Bay) NP (CYPAL), Lizard Island NP, Endeavour River NP

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 3.2.4: Provides wetland habitat for flora and fauna.

3.2.4a: Provides wetland habitat for flora and fauna.

3.2.4e: Provides wetland habitat for flora and fauna.

**Comments:** 3.2.4a: A variant dominated by *L. suaveolens* can occur. Occurs scattered along the coast and the Torres Strait Islands.

3.2.4b: Occurs scattered along the coast and in Torres Strait islands.

3.2.4c: Moa Island in Torres Strait.

3.2.4e: This RE intergrades with sclerophyll swamp communities occurring in the same landscape position. This vegetation community is now 3.3.9b.

3.2.4x1: This regional ecosystem along the boundary of dunefields and the coastal plain. West coast of the bioregion.

**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 3.2.5

**Description:** Woodland to open forest of *Acacia crassicaarpa* (spoon tree). Occurs on coastal dunes and beach ridges. Not a Wetland. (BVG1M: 28b).

Vegetation communities in this regional ecosystem include:

3.2.5a: *Acacia crassicaarpa* (spoon tree) woodland. *Acacia platycarpa* (a wattle) and *A. torulosa* (northern lancewood) may be co-dominant in some areas while *Syzygium suborbiculare* (lady apple) and *Parinari nonda* (nonda) are frequent canopy trees. A mixed sparse sub-canopy layer is often present in these clumps. A very sparse shrub layer is often present. The ground layer is short and very sparse to mid-dense and contain *Panicum* spp. (panic), *Heteropogon contortus* (black spear grass) or *Eragrostis* spp. Associated with beach ridges. Not a Wetland. (BVG1M: 28b).

3.2.5b: Low woodland to open woodland dominated by *Corymbia clarksoniana* (Clarkson's bloodwood) and/or *C. novoguineensis* and sometimes *C. tessellaris* (Moreton Bay ash) with subdominants including *Acacia crassicaarpa* (spoon tree), *Terminalia subacroptera*, *Sterculia quadrifida* and *Syzygium suborbiculare* (lady apple). Occurs on coastal dunes and beach ridges. Not a Wetland. (BVG1M: 28b).

3.2.5c: *Acacia crassicaarpa* (spoon tree) open forest, usually with *Asteromyrtus brassii* and occasionally *Melaleuca dealbata* (silver-leaved paperbark) and *Corymbia novoguineensis*. A sparse sub-canopy can contain *A. brassii*, *Acmena hemilampra* and *Lophostemon suaveolens* (swamp mahogany), while *Exocarpos latifolius*, *Dodonaea polyandra* (native hop-bush), *Halfordia kendack* and *Breynia oblongifolia* are found in the shrub layer. *Lomandra banksii* is often found in the ground layer with *Panicum* spp. Occurs on stabilised transgressive dunes. Not a Wetland. (BVG1M: 28b).

**Short description:** *Acacia crassicaarpa* on coastal dunes and beach ridges, woodland to open forest

**Supplementary descriptions:**

**Subregions:** 9, 7, 4, (3), (8), (2.1)

**Protected areas:** Possession Island NP, Jardine River NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 3.2.5: Potential habitat for NCA listed species: *Dendrobium bigibbum*, *Lepturus geminatus*.

**Comments:** 3.2.5: Extensive along the western Peninsula coast and Torres Strait.  
3.2.5a: Often dense clumps occur which are separated by wide treeless areas. A variant on dunes in Princess Charlotte Bay is a *Corymbia tessellaris* dominated shrubby woodland. *Melaleuca nervosa* (fibre-bark teatree) and *Terminalia muelleri* (damson) occurs frequently in the canopy. Most extensive on the west coast, but also on the east coast and the Torres Strait.  
3.2.5b: Torres Strait.  
3.2.5c: Western islands of Torres Strait.

**Estimated extent:**<sup>1</sup> Pre-clearing 39000 ha; Remnant 2021 39000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.2.6

**Description:** Casuarina equisetifolia woodland to open forest, sometimes with an understory of vine thicket species. Occurs on foredunes on mainland and islands. Not a Wetland. (BVG1M: 28a).

Vegetation communities in this regional ecosystem include:

3.2.6a: Casuarina equisetifolia (beach sheoak) woodland to open forest. A very sparse shrub layer can occur and include Colubrina asiatica, Hibiscus tiliaceus and Sterculia quadrifida. The mixed but generally sparse ground layer can include Ipomoea indica, Spinifex longifolius and Thuarea involuta. Occurs on foredunes. Not a Wetland. (BVG1M: 28a).

3.2.6b: Casuarina equisetifolia open forest (18-25m) with a dense sub-canopy of vine thicket species including Aglaia elaeagnoidea, Cyclophyllum spp., Drypetes deplanchei, Diospyros maritima, Planchonella obovata (yellow boxwood), Premna serratifolia and Millettia pinnata. A sparse shrub layer often contains canopy species often with Eugenia reinwardtiana (Cedar Bay cherry) common. A sparse to dense groundlayer usually contains seedlings of canopy species. Occurs on coral cay islands. Not a Wetland. (BVG1M: 28a).

**Short description:** Casuarina equisetifolia woodland to open forest on foredunes on mainland and islands

**Supplementary descriptions:**

**Subregions:** 7, 9, 3, 4, 6, (2), (1)

**Protected areas:** Turtle Group NP, Possession Island NP, Three Islands Group NP, Howick Group NP (CYPAL)

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.6: Widely distributed type. Also occurs in other coastal bioregions. Widely distributed type. Also occurs in other coastal bioregions.

3.2.6b: Masig and Kodel Islands. On Masig Island this community is under threat of fragmentation through clearing for expanding sewerage infrastructure requirements.

**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 3.2.7

**Description:** *Corymbia novoguineensis* and/or *C. clarksoniana* (Clarkson's bloodwood) woodland to open forest, occasionally with *Acacia crassicaarpa* (spoon tree) +/- *Melaleuca* spp. A very sparse to mid-dense lower tree layer can commonly include *A. crassicaarpa*, *Parinari nonda* (Nonda plum) and *Syzygium suborbiculare* (white apple), with *Melaleuca viridiflora* (broad-leaved teatree), *Neofabricia myrtifolia* (yellow teatree) and *Asteromyrtus* spp. occasionally present. The very sparse to mid-dense shrub layer also usually contains *Acacia* spp., with *Alyxia spicata* (chain fruit), *Exocarpos latifolius*, *Lomandra banksii* and *Leucopogon* spp. occasionally present. The sparse to dense groundlayer commonly contains *Dianella* spp., *Heteropogon triticeus* (giant spear grass), *Lomandra* spp., *Panicum* spp. and *Schizachyrium* spp. (fire grass). Occurs on dunes. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

3.2.7a: *Corymbia novoguineensis* and/or *C. clarksoniana* (Clarkson's bloodwood) woodland to open forest, occasionally with *Acacia crassicaarpa* (spoon tree) +/- *Melaleuca* spp. A very sparse to mid-dense lower tree layer can commonly include *A. crassicaarpa*, *Parinari nonda* (Nonda plum) and *Syzygium suborbiculare* (white apple), with *Melaleuca viridiflora* (broad-leaved teatree), *Neofabricia myrtifolia* (yellow teatree) and *Asteromyrtus* spp. occasionally present. The very sparse to mid-dense shrub layer also usually contains *Acacia* spp., with *Alyxia spicata* (chain fruit), *Exocarpos latifolius*, *Lomandra banksii* and *Leucopogon* spp. occasionally present. The sparse to dense groundlayer commonly contains *Dianella* spp., *Heteropogon triticeus* (giant spear grass), *Lomandra* spp., *Panicum* spp. and *Schizachyrium* spp. (fire grass). Occurs in wet coastal areas usually associated with dunefields. Not a Wetland. (BVG1M: 9e).

3.2.7b: *Corymbia papuana*, *C. clarksoniana* woodland on old dunes. Occurs on degraded dunes along the edge of Tertiary plateau. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia novoguineensis* and/or *C. clarksoniana* woodland in coastal areas

**Supplementary descriptions:**

**Subregions:** 4, 9, 3, (7), (1), (8), (2)

**Protected areas:** Wuthathi (Shelburne Bay) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Apudthama NP (CYPAL), Possession Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.7: Potential habitat for NCA listed species: *Acacia solenota*.

**Comments:** 3.2.7: parts of RE 3.2.8 was amalgamated into this RE. Occurs on dunes on the east coast and the Torres Strait.

3.2.7b: West coast of the bioregion, specifically in the Archer river area on APN lands.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.2.8

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.7, 3.2.10b and 3.2.17. *Corymbia nesophila* (Melville Island bloodwood) woodland to open forest, often with *C. novoguineensis* as a co-dominant. Scattered *Neofabricia myrtifolia* (yellow teatree) are often present. The subcanopy is absent to very sparse and can include canopy species, *Acacia rothii* and *Asteromyrtus brassii*. The very sparse to sparse mixed shrub layer includes *Acacia polystachya* and heath species such as *Leucopogon yorkensis*, *Lithomyrtus obtusa* (beach Myrtella) and *Choriceras tricornis* (Cape Choriceras). The very sparse to sparse grassy groundlayer can include *Eriachne pallescens*, *Alloteropsis semialata* (cockatoo grass) and *Schelhammra multiflora*. Occurs on old stabilised dunes and sandy alluvium. Not a Wetland. (BVG1M: 14c).

Vegetation communities in this regional ecosystem include:

3.2.8a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.7 or 3.2.10b. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse to mid-dense canopy (9-16m tall). *C. novoguineensis* (bloodwood) frequently is present as a subdominant canopy tree. Scattered *Neofabricia myrtifolia* (yellow teatree) are frequently present. The very sparse sub-canopy tree layer (6-10m tall) is composed mainly of *C. nesophila*. The shrub layer (0.5-3m tall) is sparse. Common species in this layer are *Dalbergia densa*, *Erythrophleum chlorostachys* (Cooktown ironwood), *C. nesophila*, *Lomandra banksii* (matrush) and *M. myrtifolia*. The ground layer is sparse. *Alloteropsis semialata* (Cockatoo grass), *Mnesithea rottboellioides* (northern cane grass), *Lomandra* spp. And *Sarga plumosum* (plume sorghum) are the principal species in this layer. Occurs on old stabilised dunes and sandy alluvium. Not a Wetland. (BVG1M: 14c).

3.2.8b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.17. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse canopy. A number of other *Eucalyptus* spp. or *Corymbia* spp. may form minor components of the canopy. *Eucalyptus brassiana* (Cape York red gum) occurs as a codominant canopy species at a number of sites. The very sparse sub-canopy tree layer is dominated by *C. nesophila*, *Acacia flavescens* (powder puff wattle), *Lophostemon suaveolens* (swamp mahogany) and *Grevillea glauca* (bushman's clothes peg). The shrub layer is very sparse. *A. flavescens*, *Erythrophleum chlorostachys* (Cooktown ironwood), *C. nesophila* and *Persoonia falcata* (geebung) are the most frequently encountered species. The ground layer varies from sparse to sparse to mid-dense. The dominant grasses are *Themeda triandra* (kangaroo grass), *Eriachne pallescens* (wanderrie grass), *Aristida* spp. (three-awned speargrass) and *Heteropogon triticeus* (giant speargrass). Common forbs include *Spermacoce* spp., *Cyanthillium cinereum* and *Flemingia parviflora* (flemingia). Occurs on old stabilised dunes and sandy alluvium. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* woodland on old stabilised dunes

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.8: Was previously mapped as 3.2.8a. Found on east coast from Lockhardt River north. Also small areas in the Torres Strait and near Cooktown.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.2.9

**Description:** Eucalyptus phoenicea (scarlet gum) open forest to low open forest. Corymbia nesophila (Melville Island bloodwood) is commonly present as a subdominant canopy tree. A very sparse to sparse sub-canopy commonly contains Syzygium suborbiculare (lady apple) with Acacia crassicaarpa (spoon tree), A. flavescens (powder puff wattle), Parinari nonda (nonda plum) and Livistona muelleri occasionally present. A sparse to mid-dense shrub layer, including many heath species, is usually present. The ground layer is sparse and usually dominated by grasses and Lomandra spp. The creeping vines Vandasina retusa and Flemingia parviflora are conspicuous at some localities. Occurs on dunefields around Cape Bedford. Not a Wetland. (BVG1M: 14c).

**Short description:** Eucalyptus phoenicea +/- Corymbia nesophila woodland on dunefields around Cape Bedford

**Supplementary descriptions:**

**Subregions:** 2

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 3.2.9: The only Queensland populations of Eucalyptus phoenicea occur in REs 3.2.9, 3.5.6 and 3.10.7. This species is widely distributed in the Northern Territory and Kimberley region. The near threatened species Xanthostemon arenarius occurs in this ecosystem.

**Comments:** 3.2.9: On some exposed dune slopes can occur as a low open forest with a very sparse heathy shrub layer. Restricted to Cape Bedford area.

**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 3.2.10

**Description:** Woodland to low woodland (and sometimes open forest) of *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia clarksoniana* (Clarkson's bloodwood). There is usually a sparse sub-canopy tree layer and the shrub layer is sparse. A variant dominated by *Acacia torulosa* (northern lancewood) and *Syzygium suborbiculare* (lady apple) and a clumped denser shrub layer can occur. Occurs on stabilised dunes on the east and west coasts of Cape York Peninsula. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.2.10a: *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a sparse canopy (9-22m tall). *Corymbia clarksoniana* (Clarkson's bloodwood) is frequently present, and sometimes codominant in the canopy. Scattered *E. brassiana* (Cape York redgum) are sometimes present in the canopy. The very sparse sub-canopy tree layer (3-8m tall) is dominated by *Syzygium suborbiculare* (lady apple). The sparse shrub layer (0.3-3m tall) is composed of a variety of species, including *Acacia torulosa* (northern lancewood), *A. crassicaarpa* (spoon tree), *A. flavescens* (powder puff wattle), *A. racospermoides* (white-barked wattle), *Alyxia spicata*, *Exocarpos latifolius*, *Styphelia ruscifolia*, *Persoonia falcata* (geebung) and *Petalostigma pubescens* (quinine). The ground layer is usually very sparse to sparse and dominated by grasses, most frequently *Panicum* spp. and *Aristida* spp. Occurs on stabilised dunes on coastal plains. Not a Wetland. (BVG1M: 14b).

3.2.10b: *Acacia torulosa* (northern lancewood) and *Syzygium suborbiculare* (lady apple) dominate the canopy. *Eucalyptus tetrodonta* (Darwin stringybark) is a scattered sub dominant species. The clumped mid-dense shrub layer is dominated by *Lithomyrtus obtusa* and *Neoroepera banksii*, with *Alyxia spicata* and *Alphitonia pomaderroides* less frequent. The ground layer is sparse and dominated by *Eriachne pallescens* (wanderrie grass) and *Schizachyrium* spp. (fire grass). Occurs on stabilised dunes on east coast plains. Not a Wetland. (BVG1M: 28b).

3.2.10c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.10a. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a sparse canopy. *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant to dominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) is also frequently present in both the canopy and the very sparse to sparse sub-canopy tree layer. *Grevillea glauca* (bushman's clothes peg), *Erythroxylum ellipticum* (matchwood), *Alphitonia pomaderroides* (soapwood), *Eucalyptus tetrodonta*, *Melaleuca nervosa* (woodland paperbark) and a variety of other species are also common sub-canopy trees. A very sparse to sparse shrub layer is composed of a variety of young trees and shrubby regrowth. The ground layer is usually very sparse to mid-dense and dominated by grasses, among them *Schizachyrium* spp. (firegrass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panic), *Aristida* spp. (three-awned speargrass), *Alloteropsis semialata* (cockatoo grass) and *Thaumastochloa* spp. Mainly occurring on old sand dunes on western Cape York Peninsula. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus tetrodonta* and *Corymbia clarksoniana* +/- *E. brassiana* or *Erythrophleum chlorostachys* woodland on stabilised dunes

**Supplementary descriptions:**

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

**Protected areas:** Cape Melville NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Apudthama NP (CYPAL), Lama Lama NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Kutini-Payamu (Iron Range) NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, KULLA (McIlwraith Range) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.10: Part of VC 3.2.8 was amalgamated into this RE. Coastal dune plains throughout Cape York Peninsula including the Torres Strait.  
3.2.10a: Vegetation community 3.2.10c was amalgamated into this. On the Starke coastal plain a variant of *E.tetrodonta* with *Corymbia stockeri* subsp. *peninsularis* occurs. The sparse shrub layer contains *Asteromyrtus symphyocarpa*, *Neoroepera banksii* and *Xanthorrhoea johnsonii*. The very sparse ground layer was dominated by *Digitaria* sp. and *Schoenus sparteus*. Coastal dune plains throughout Cape York Peninsula including the Torres Strait.  
3.2.10b: South east of the bioregion.  
3.2.10c: Western coast of Cape York Peninsula.

**Estimated extent:**<sup>1</sup> Pre-clearing 36000 ha; Remnant 2021 36000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**



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## Regional ecosystem 3.2.11

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.12a. *Acacia crassicarpa* (spoon tree) dominates the mid-dense to dense canopy (6-15m tall). *Neofabricia myrtifolia* (yellow teatree) and *Syzygium banksii* (Bamaga satinash) are frequently codominant trees. The sparse to dense sub-canopy (2-8m tall) is composed of a variety of trees, with *Atractocarpus sessilis*, *Choriceras tricornis*, *Psydrax* spp., *Leucopogon yorkensis* and *Halfordia kendack* occurring at the highest densities. *Pandanus conicus* is frequently present as a conspicuous low tree. The sparse shrub layer (0.5-2m tall) is composed of a variety of shrubs and young trees of species of the upper layers, with *Alyxia spicata* (chain fruit) and *Lithomyrtus obtusa* occurring locally at high densities. The ground layer is very sparse, mainly composed of scattered graminoids. Occurs on coastal dunes and beach ridges. Not a Wetland. (BVG1M: 3a).

**Short description:** Low microphyll vine forest on coastal dunes and beach ridges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 120; Stanton & Fell (2005), 20

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.2.11: Habitat for the vulnerable species *Croton stockeri*.

**Comments:** 3.2.11: Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). East coast of the bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.2.12

**Description:** *Acacia crassicarpa* (spoon tree) and/or *Syzygium banksii* (Bamaga satinash) low closed forest to low open forest, often with a range of heath and rainforest species. In some areas a low closed forest to open forest with emergent *Araucaria cunninghamii* var. *cunninghamii* (hoop pine) occurs. Occurs on coastal dunefields and beach ridges. Not a Wetland. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

3.2.12a: *Acacia crassicarpa* (spoon tree) and/or *Syzygium banksii* (Bamaga satinash) low closed forest to low open forest, commonly with *Neofabricia myrtifolia* (yellow teatree), *Asteromyrtus angustifolia* and *Amorphospermum antilogum*. *Xanthostemon arenarius* and *Cyclophyllum* spp. and *Halfordia kendack* can also occasionally be co-dominant. A wide range of heath and rainforest species can also occur in the very sparse to mid-dense subcanopy and/or shrub layers along with canopy species with *Choriceras tricornis*, *Pandanus conicus*, *Sersalisia sericea*, *Atractocarpus sessilis*, *Eugenia reinwardtiana* *Drypetes deplanchei* and *Leucopogon yorkensis* commonly occurring. The ground cover is very sparse and usually includes *Arthrostylis aphylla*, *Dianella* spp., *Lomandra* spp. And *Fimbristylis* spp. Occurs on coastal dunefields and beach ridges. Not a Wetland. (BVG1M: 3a).

3.2.12b: *Araucaria cunninghamii* var. *cunninghamii* (hoop pine) low closed forest to open forest +/- *Neofabricia myrtifolia* (yellow teatree), +/- *Asteromyrtus angustifolia*, +/- *Sersalisia sericea* +/- *Thryptomene oligandra* +/- *Acacia* spp.. *Styphelia ruscifolia* and *Psydrax* spp. can also occasionally be co-dominant. *Araucaria cunninghamii* var. *cunninghamii* often forms a noticeable emergent layer. A wide range of heath and rainforest species can also occur in the very sparse to mid-dense subcanopy and/or shrub layers along with canopy species. These can include *Eugenia reinwardtiana*, *Drypetes deplanchei*, *L. yorkensis*, *Xanthostemon youngii*, *Terminalia muelleri* and *Rhodamnia* spp. A range of vines and epiphytes can also occur. The ground cover is very sparse and commonly includes *Arthrostylis aphylla*, *Dianella* spp., *Lomandra* spp. And seedlings of woody species. Occurs on coastal dunefields and beach ridges. Not a Wetland. (BVG1M: 3a).

**Short description:** *Acacia crassicarpa*, *Syzygium banksii* low closed forest +/- emergent *Araucaria cunninghamii* var. *cunninghamii* on coastal dunefields and beach ridges

### Supplementary descriptions:

**Subregions:** 4, 1, 2, 6

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Apudthama NP (CYPAL), Cape Melville NP (CYPAL), Endeavour River NP, Wuthathi (Shelburne Bay) NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Howick Group NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.12: High numbers of endemic plant species. The vulnerable plant species *Cycas silvestris* and near threatened species *Xanthostemon arenarius* occur in this ecosystem.

**Comments:** 3.2.12: RE 3.2.11 was amalgamated into this RE. Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). East coast.  
3.2.12a: Was previously mapped as 3.2.11. East coast.  
3.2.12b: Was previously mapped as 3.2.12. Can sometimes occur as a closed scrub. East coast.

**Estimated extent:**<sup>1</sup> Pre-clearing 25000 ha; Remnant 2021 24000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.2.13

**Description:** Semi-deciduous notophyll vine forest often dominated by *Terminalia muelleri* (Mueller's damson). A *Terminalia muelleri* woodland or *Corymbia tessellaris*, *Corypha utan* open forest sometimes occur. Restricted to beach ridges. Not a Wetland. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

3.2.13a: Semi-deciduous notophyll vine forest often dominated by *Terminalia muelleri* (Mueller's damson) with common species including *Bombax ceiba* (kapok), *Ganophyllum falcatum* (scaly ash), *Mimusops elengi* (red coondoo), *Sersalisia sericea* (wild prune) and *Corypha utan*. *Gyrocarpus americanus* (helicopter tree) and *Canarium australianum* (scrub turpentine) are common and can also occur as emergents. Where it occurs the dense mixed subcanopy can include canopy species, *Eugenia reinwardtiana* (Cedar Bay cherry), *Diospyros* spp., and *Cupaniopsis anacardioides* (beach tamarind). The sparse to open shrublayer often includes *Drypetes deplanchei* (yellow tulipwood), *E. reinwardtiana* and *Glycosmis trifoliata*. The slender vine *Abrus precatorius* (crab-eye) is also common in the sub-layers. Various dominants can be found in the sparse to dense ground layer including *Sporobolus virginicus* (marine couch), *Mnesithea rottboellioides* and *Themeda arguens* along with a range of *Cyperus* spp. sedges. Restricted to beach ridges. Not a Wetland. (BVG1M: 3a).

3.2.13b: Mixed woodland to open woodland, including combinations of the species *Terminalia muelleri*, *Canarium australianum*, *Planchonia careya*, *Corymbia tessellaris*, *Sersalisia sericea* +/- a range of vine thicket species. The very sparse to sparse sub canopy and/or shrub layer often includes canopy species +/- *Melaleuca viridiflora*. The sparse to dense ground layer is often contains *Themeda arguens*, *Eriachne* spp. or *Panicum* spp. Restricted to beach ridges. Not a Wetland. (BVG1M: 28b).

3.2.13c: *Corymbia tessellaris* and *Corypha utan* open forest to open woodland +/- *Acacia auriculiformis* +/- *Bombax ceiba*. A mid-dense low subcanopy often contains *C. utan* and *Terminalia muelleri* +/- *Litsea glutinosa*. The very sparse shrub layer can include *Atalaya variifolia*, *Antidesma* spp. *C. utan*, and *Flueggea virosa*. The mid-dense to dense grassy ground layer dominants can include *Heteropogon contortus*, *Mnesithea rottboellioides* and *Themeda arguens*. Restricted to beach ridges. Not a Wetland. (BVG1M: 3a).

**Short description:** Semi-deciduous notophyll vine forest on beach ridges on the east coast

**Supplementary descriptions:**

**Subregions:** 9, 6, 2, 1, (5), (4)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Lama Lama NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Wuthathi (Shelburne Bay) NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Endeavour River NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.13: Potential habitat for NCA listed species: *Arenga australasica*, *Dendrobium bigibbum*.

**Comments:** 3.2.13: RE 3.2.16 was amalgamated into this RE. Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). East coast of the Peninsula, most commonly in the Bathurst Bay area. Frequently heavily used by cattle and feral horses. The weedy introduced plant *Mesosphaerum suaveolens*\* (hyptis) is common in the ground layer.  
3.2.13a: Vegetation community 3.2.1a was amalgamated into this RE. Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). East coast of the Peninsula, most commonly in the Bathurst Bay area. Frequently heavily used by cattle and feral horses. The weedy introduced plant *Mesosphaerum suaveolens*\* (hyptis) is common in the ground layer.  
3.2.13b: Was previously mapped as RE 3.2.16. *Mesosphaerum suaveolens*\* occurred frequently. Northern Lakefield NP.  
3.2.13c: Bathurst Head area and Princess Charlotte Bay.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.2.14

**Description:** Low open forest to closed scrub of *Melaleuca arcana* +/- *Acacia pubirhachis*. A very sparse shrub layer often contains *Asteromyrtus lysicephala* +/- a range of other heath species. The ground layer can be dominated by *Lomandra banksii* but is generally very sparse. Occurs in low lying areas in the landscape, frequently experiencing waterlogging in the wet season. Palustrine. (BVG1M: 22b).

**Short description:** *Melaleuca arcana* low open forest associated with dune swamps

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), D13h.

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

**Protected areas:** Cape Melville NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 3.2.14: Provides wetland habitat for a flora and fauna.

**Comments:** 3.2.14: The height of the canopy depends on the degree of exposure to the prevailing winds. It commonly occurs on the fringes of freshwater lakes in the dunefields. East coast between Cape Melville and Cape Flattery. Also on some Torres Strait Islands.

**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 3.2.15

**Description:** *Melaleuca viridiflora* and *Corymbia novoguineensis* low woodland to tall shrubland +/- *Asteromyrtus symphyocarpa* +/- *M. saligna*. Where it occurs as a tall shrubland *C. novoguineensis* is an emergent. The sparse to mid-dense subcanopy and/or shrublayer contains canopy species +/- *Banksia dentata* +/- *A. brassii*. The very sparse to dense ground layer often contains *Dapsilanthus spathaceus*, *Dianella* spp. and *Lomandra* spp. plus a range of grasses including *Eriachne* spp., *Schizachyrium* spp. Occurs on beach ridges and dunefields. Not a Wetland. (BVG1M: 28c).

Vegetation communities in this regional ecosystem include:

3.2.15a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.15 and 3.2.17. The sparse canopy (7-9m tall) is dominated by *Melaleuca viridiflora* (broad-leaved paperbark), *Neofabricia myrtifolia* (yellow teatree) and *Thryptomene oligandra*. Scattered emergent *Callitris intratropica* (cypress pine) (8-11m) are sometimes present. *Leucopogon yorkensis* dominates the sparse shrub layer (2.5-4m tall), with *Alyxia spicata* (chain fruit) and *Lomandra banksii* frequent low shrubs (0.5-1.3m tall). The ground layer is sparse and includes *Drosera petiolaris*, *Stylidium tenerum*, *Utricularia chrysantha*, *Schoenus sparteus*, *Centrolepis banksii*, *Fimbristylis pauciflora*, *Dapsilanthus ramosus* and *Schoenus calostachyus*. Occurs on beach ridges. Not a Wetland. (BVG1M: 28c).

3.2.15b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.17. Woodland (15-18m tall) dominated by *Corymbia nesophila* (Melville Island bloodwood), *Asteromyrtus brassii* and *Callitris intratropica* (cypress pine), with a sparse sub-canopy tree layer (8-10m tall) composed mainly of *A. brassii*, *C. intratropica* and *M. myrtifolia*. Scattered *Leucopogon* spp. occur in the sparse shrub layer. This variant occurred on the landward edge of the Shelburne Bay dunefields. Occurs in dunefields. Riverine. (BVG1M: 28c).

3.2.15x1: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.17. *Asteromyrtus brassii*, *Neofabricia myrtifolia* (yellow teatree) and *Allocasuarina littoralis* (black sheoak) usually dominate the fairly even, mid-dense canopy (6-10m tall). Multi-stemmed *Welchiodendron longivalve* (yellow box-penda) trees are also frequently conspicuous in the canopy. A sparse sub-canopy layer (2-6m tall) is frequently dominated by *Dodonaea polyandra* (native hop-bush) and *A. littoralis*, while a sparse to mid-dense shrub layer (0.5-1.5m tall) dominated by *Alyxia spicata* (chain fruit), *D. polyandra*, *Choriceras tricornis* or *Exocarpos latifolius* species is usually present. The ground layer is very sparse with *Schoenus sparteus*, *Cleistochloa* spp., *Lomandra* spp., *Alloterosia semialata*, *Eulalia mackinlayi* and *Gahnia aspera* being the most frequent species. Occurs on dunefields. Not a Wetland. (BVG1M: 28c).

**Short description:** *Melaleuca viridiflora*, *Corymbia novoguineensis* low woodland on beach ridges

**Supplementary descriptions:**

**Subregions:** 3

**Protected areas:** Possession Island NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 3.2.15: Potential habitat for NCA listed species: *Psydrax reticulata*.

**Comments:** 3.2.15: Was previously mapped as 3.2.15a. Torres Strait Islands.

3.2.15a: Mainland mapped part is now part of RE 3.2.17. Torres Strait mapped part remains as RE 3.2.15.

3.2.15x1: East coast from Shelburne Bay to Usher Point.

**Estimated extent:**<sup>1</sup> Pre-clearing 1000 ha; Remnant 2021 900 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.2.16

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.13b. Many trees in this unit tend to be clumped, with typical beach ridge species such as *Terminalia muelleri* (Mueller's damson), *Sersalisia sericea* and *Grevillea parallela* (silver oak) in the denser clumps, and *Melaleuca* spp. and *Grevillea* spp. dominating the more open areas. Overall, the canopy (8-12m tall) is sparse. A very sparse sub-canopy layer (6-8m tall) is present, with *Alphitonia pomaderroides* (soapbush), *Dendrolobium umbellatum* and *Santalum lanceolatum* (sandalwood) frequent species. *Tabernaemontana pandacacui* and *Breynia* spp. are the most frequent shrubs in the very sparse shrub layer (0.5-3m tall). The ground layer is sparse, and dominated by graminoids, including *Panicum trichoides*, *Pseudopogonatherum contortum* and *Themeda arguens*. Associated with old beach ridges. Not a Wetland. (BVG1M: 28b).

**Short description:** *Melaleuca viridiflora* +/- *Terminalia muelleri* low woodland on old beach ridges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 143

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.16: Northern Lakefield NP. *Mesosphaerum suaveolens*\* occurred frequently.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.2.17

**Description:** Open scrub to tall shrubland, though can also occur as closed scrub. *Leucopogon yorkensis* is usually dominant, though a range of other heath species can also occur including *Neofabricia myrtifolia* (yellow teatree), *Thryptomene oligandra*, *Jacksonia thesioides* (broombush), *Asteromyrtus brassii* and *Styphelia ruscifolia*, along with *Acacia crassicaarpa* (spoon tree), *Alyxia spicata* (chain fruit) and *Psydrax* spp. A range of emergents can occur including canopy species, *Callitris intratropica* (cypress pine), *Corymbia* spp. (bloodwoods) and *Araucaria cunninghamii* (hoop pine). A lower shrub often occurs and includes *Leucopogon* spp., *Lomandra banksii* and *Myrsine variabilis* (muttonwood). The sparse to dense ground cover commonly includes *Dianella* spp., *Lomandra* spp. And a range of graminoids. Occurs on dunefields. Not a Wetland. (BVG1M: 3a).

**Short description:** *Leucopogon yorkensis* open scrub on dunefields

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), D14n, D14e.

**Subregions:** 4, 2, (1), (6), (3)

**Protected areas:** Apudthama NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Cape Melville NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Endeavour River NP, Possession Island NP, Annan River (Yuku Baja-Muliku) NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.17: RE's 3.2.8 (part), 3.2.15 (part), 3.2.19 and proposed new REs 3.2.15x1, 3.5.19x5 were amalgamated into this RE. In exposed situations, the height of the canopy can be reduced to a shrubland or even dwarf open heath. There is a higher density of shrubs where the tree layers are more open. The heights of the vegetation are often variable and clearly defined layers are often difficult to discern and in some cases the emergent species form a true canopy layer over the *L. yorkensis* shrub layer. Occurs on major dunefields and beach ridges of the east coast. Also occurs on some Torres Strait Islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 18000 ha; Remnant 2021 18000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.2.18

**Description:** Thryptomene oligandra open heath to shrubland and (sometimes) dwarf open heath usually with Asteromyrtus lysicephala, Baeckea frutescens and Melaleuca arcana. Other common species include Hibbertia banksii, Jacksonia thesioides and Neofabricia myrtifolia. A range of canopy species may appear as scattered emergents. The very sparse to mid-dense ground layer is most usually dominated by Baloskion tetraphyllum with Dapsilanthus spp. Common along with a range of hydrophilic forbs. Occurs between the parabolic dunes of the Cape York dunefields. Contains Palustrine. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.2.18a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.18. Asteromyrtus lysicephala (back to front bush), Neofabricia myrtifolia (yellow teatree), Thryptomene oligandra (thryptomene), Hibbertia banksii forma banksii and Jacksonia thesioides consistently occur at high densities and dominate the sparse to mid-dense canopy (0.5-2m tall). Acacia spp. (wattles) and Banksia dentata (swamp banksia) are often present as emergent shrubs (2-3m tall). The ground layer is very sparse and dominated by sedges, with Baloskion tetraphyllum subsp. meiostachyum the most frequent graminoid. Occurs on the flat coastal sandplains. Not a Wetland. (BVG1M: 29a).

3.2.18b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.18. Melaleuca arcana (Cape York paperbark), Leptospermum polygalifolium, Thryptomene oligandra and Asteromyrtus lysicephala (back to front bush) form an open heath (1.0-1.5m tall) with emergent Banksia robur (swamp banksia) and Gahnia sieberiana (saw sedge) (1.5-2.5m tall). Occurs on the flat coastal sandplains. Not a Wetland. (BVG1M: 29a).

3.2.18c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.18. The plants making up the sparse to mid-dense, even canopy (10-50cm tall) are severely windsheared. In sheltered positions, e.g. between rocks, the shrubs may reach 1m in height. A variety of species make up the canopy and the dominance may vary with locality. Asteromyrtus lysicephala (back to front bush), Grevillea pteridifolia (toothbrush grevillea), Melaleuca viridiflora (broad-leaved paperbark) and Neofabricia myrtifolia (yellow teatree) usually occur at the highest densities, with Styphelia ruscifolia locally dominant. Although in many areas, the canopy has a PFC of greater than 70%, the large amount of outcropping rock reduces the overall PFC to about 50%. The ground layer is very sparse and dominated by graminoids. Schoenus sparteus is the most frequent graminoid. Occurs on dunefields. Not a Wetland. (BVG1M: 29a).

**Short description:** Thryptomene oligandra open heath +/- Asteromyrtus lysicephala on flat sand plains

**Supplementary descriptions:**

**Subregions:** 4, 2, (1), (6), (3)

**Protected areas:** Wuthathi (Shelburne Bay) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Apudthama NP (CYPAL), Cape Melville NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Lizard Island NP, Annan River (Yuku Baja-Muliku) NP

**Extent in reserves:** High

**Wetland:** Contains Palustrine

**Special values:** 3.2.18: Potential habitat for NCA listed species: Acacia solenota, Dendrobium bigibbum, Habenaria xanthantha.

**Comments:** 3.2.18: Both vegetation communities 3.2.18a and 3.2.18b as well as RE 3.2.20 all amalgamated into this RE. Occurs on flat sandplains which occur between the parabolic dunes in the major dunefields. Mainly east coast but extends around the tip to south of the Jardine River mouth.

3.2.18b: Cape Flattery dunefields.

3.2.18c: Shelburne Bay.

**Estimated extent:**<sup>1</sup> Pre-clearing 51000 ha; Remnant 2021 51000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**



## Regional ecosystem 3.2.19

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.17. Shrubland to low open heath of *Leucopogon* spp. with a sparse ground cover. Occurs on residual beach ridges and sand dunes. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.2.19a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.17. The mid-dense, tall shrub layer (2-7m tall) is dominated by *Leucopogon yorkensis* and *Asteromyrtus brassii*, with *Sersalisia sericea* and *Halfordia kendack* also occurring at high densities. Scattered emergent trees (8-11m tall) may be present. A sparse, low shrub layer (0.3-1.5m tall) may be present. The ground layer is very sparse. Occurs on beach ridges. Not a Wetland. (BVG1M: 29a).

3.2.19b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.17. Low open shrubland dominated by *Styphelia ruscifolia* and *Melaleuca viridiflora* with subdominant *Baekkea frutescens* and *Asteromyrtus brassii*. The epiphytes *Dischidia major* and *Myrmecodia platytyrea* are abundant. A sparse ground cover of *Dapsilanthus spathaceus*, *Schoenus sparteus* and *Lomandra banksii* exists on broad sand patches. Occurs on residual sand dunes. Not a Wetland. (BVG1M: 29a).

**Short description:** Shrubland to low open heath of *Leucopogon* spp. on residual beach ridges and sand dunes

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.19: Occurs on old beach ridges on Torres Strait islands, and in the Olive River dunefield. On Horn Island, this regional ecosystem has been disturbed by road and power line corridors. Further infrastructure development should avoid this restricted ecosystem. Occurs on old beach ridges on Torres Strait islands, and in the Olive River dunefield.

3.2.19a: Occurs on old beach ridges on Torres Strait islands, and in the Olive River dunefield.

3.2.19b: Occurs on Moa Island in the Torres St.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 3.2.20

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.18. *Melaleuca arcana* (Cape York paperbark) dominates the sparse to mid-dense canopy (0.5-3m tall). *Thryptomene oligandra*, *Asteromyrtus lysicephala* (back to front bush), *Baeckea frutescens* (weeping baeckea) and *Gahnia sieberiana* (saw sedge) are usually also present at high densities. These latter species may be taller than the predominant *M. arcana*, which may only reach 0.5m metres in places. Very occasional emergent *Grevillea pteridifolia* (toothbrush grevillea) up to 6 metres tall may be present. The ground layer is sparse to mid-dense and dominated by *Baloskion tetraphyllum* subsp. *Meiostachyum*, *Dapsilanthus* spp. And *Schoenus sparteus*. In places, *Gahnia sieberiana* forms thick sedgelands up to 2 metres tall. Occurs in swampy areas on sandplains. Palustrine. (BVG1M: 22b).

**Short description:** *Melaleuca arcana* and *Thryptomene oligandra* open heath in swampy areas on sand plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 175

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Palustrine

**Special values:** 3.2.20: Provides wetland habitat for a flora and fauna.

**Comments:** 3.2.20: Associated with swampy areas on sandplains in the northern dunefields. East coast dunefields from Cape Flattery to the Somerset.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.2.21

**Description:** *Neofabricia myrtifolia* (yellow teatree), *Neoroepera banksii* open to closed heath to *Neofabricia myrtifolia*, *Labichea buettneriana* dwarf open-heath. A scattered emergent layer is usually present. Extensive on dunefields. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.2.21a: *Neofabricia myrtifolia* (yellow teatree), *Neoroepera banksii* open to closed heath, usually with *Jacksonia thesioides* (broombush) and *Styphelia ruscifolia*. Other commonly occurring species are *Boronia alulata*, *Hibbertia banksii*, *Acacia calyculata*, *Asteromyrtus lysicephala*, *L. lavarackii* and *Labichea buettneriana*. An emergent layer often contains *Grevillea pteridifolia* (toothbrush Grevillea), *Allocasuarina littoralis* (black sheoak) and *Acacia* spp. The very sparse ground layer most commonly contains *Lomandra banksii*, *Schoenus sparteus* and *Arthrostylis aphylla*. Extensive on dunefields. Not a Wetland. (BVG1M: 29a).

3.2.21b: *Neofabricia myrtifolia*, *Labichea buettneriana* dwarf open-heath, usually with *Jacksonia thesioides* (broombush), *Styphelia ruscifolia*, *Boronia alulata* and *Neoroepera banksii* as sub dominants. *Hibbertia banksii* and *Grevillea pteridifolia* also usually occur. *Allocasuarina littoralis*, *Banksia dentata* are common very scattered emergents. *Schoenus sparteus* is usually dominant in the sparse ground layer. Extensive on dunefields. Not a Wetland. (BVG1M: 29a).

**Short description:** *Neofabricia myrtifolia* +/- *Jacksonia thesioides* open to closed heath on dunefields

**Supplementary descriptions:**

**Subregions:** 4, 2, (6), (3), (1), (5), (9)

**Protected areas:** Wuthathi (Shelburne Bay) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Apudthama NP (CYPAL), Cape Melville NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Endeavour River NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.21: Potential habitat for NCA listed species: *Acacia solenota*, *Dendrobium bigibbum*, *Dendrobium johannis*, *Dockrillia wassellii*, *Stackhousia* sp. (McIvor River J.R.Clarkson 5201).

**Comments:** 3.2.21: This regional ecosystem varies with locality in height, density and species composition. The differences can probably be attributed to differences in exposure to wind, amount of sand movement and soil moisture conditions. In exposed situations the shrubs are stunted and wind sheared (<1m tall), whereas in sheltered positions, a closed scrub (5-8m tall) may occur. East coast, predominantly in the Cape Flattery and Shelburne Bay dunefields.

3.2.21a: There are scattered open patches where shrubs are absent. East coast, predominantly in the Cape Flattery and Shelburne Bay dunefields.

3.2.21b: Was previously mapped as 3.2.23. East coast, predominantly in the Cape Flattery dunefields. May be further impacted by expansion of silica mining.

**Estimated extent:**<sup>1</sup> Pre-clearing 58000 ha; Remnant 2021 58000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.2.22

**Description:** Mixed dwarf open heath to dwarf shrubland including combinations of the species *Grevillea pteridifolia* (toothbrush grevillea), *Neoroepera banksii*, *Dodonaea malvacea*, *Jacksonia thesioides* and *Leucopogon yorkensis*. Occasional taller shrubs may be present in sheltered positions and include *Syzygium suborbiculare* and *Petalostigma pubescens*. The ground layer is frequently indistinct from the dwarf shrub layer. The sparse to dense ground layer often contains *Triodia microstachya* with *Aristida holathera* and *Heteropogon triticeus* sometimes present. Associated with windswept coastal dunes and headlands. Not a Wetland. (BVG1M: 29a).

**Short description:** Mixed dwarf open heath on dunes and headlands

**Supplementary descriptions:**

**Subregions:** 2, 4, (1), (3)

**Protected areas:** Apudthama NP (CYPAL), Cape Melville NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Lizard Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.22: Potential habitat for NCA listed species: *Dendrobium bigibbum*.

**Comments:** 3.2.22: East coast dunefields from Cape Flattery to the Somerset.

**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 3.2.23

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.21b. A variety of dwarf shrub species form an uneven discontinuous canopy (30 to 95cm tall). Shrub dominance varies with locality and is patchy within a site. *Neofabricia myrtifolia* (yellow teatree), *Labichea buettneriana*, *Styphelia ruscifolia* and *Jacksonia thesioides* are consistently present dominant shrubs. Scattered emergent low trees (2-3m tall) are sometimes present. The very sparse ground layer is dominated by graminoids. *Schoenus sparteus* is the most frequent herb. Most of the soil surface is covered with leaf litter. Associated with exposed sandplains. Not a Wetland. (BVG1M: 29a).

**Short description:** *Neofabricia myrtifolia* and *Labichea buettneriana* dwarf open heath on sand plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 179

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.23: North of Cape Flattery. May be further impacted by expansion of silica mining.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.2.24

**Description:** Mixed open tussock grassland and open forblands, dominated by a range of graminoids and forbs. Emergent shrubs to shrublands can also occur. Occurs on exposed foredunes, islands and coral cays. Not a Wetland. (BVG1M: 28d).

Vegetation communities in this regional ecosystem include:

3.2.24a: Mixed closed tussock to open tussock grassland including combinations of *Sarga plumosum*, *Heteropogon triticeus* and *Eragrostis* spp. *Eremochloa bimaculata* can sometimes also be dominant. Sub-shrubs of *Acacia humifusa* and *Lithomyrtus obtusa* may also occur as sub-dominants. An emergent layer sometimes occurs and can include *Premna serratifolia* and *Grevillea parallela*. Occurs on exposed foredunes. Not a Wetland. (BVG1M: 28d).

3.2.24b: Mixed closed tussock grassland to forbland including combinations of *Lepturus repens*, *Sesuvium portulacastrum* and *Boerhavia* spp. *Urochloa subquadriflora*, *Spinifex sericeus* and *Sarga plumosum* can also occur as dominants. In rare instances a shrubland dominated by *Sersalisia sericea* can occur. Scattered emergents of a range of species can often occur and include *Scaevola taccada*, *Casuarina equisetifolia* and *Premna serratifolia*. Occurs on exposed foredunes. Not a Wetland. (BVG1M: 28d).

3.2.24c: *Premna serratifolia* tall shrubland to open scrub occasionally with *Colubrina asiatica*, *Terminalia* spp. and *Diospyros* spp. Emergents of species in the shrublayer can occur along with *Manilkara kauki*. A sparse to mid-dense lower layer can contain a range of shrub species and vines. The sparse to dense ground layer commonly includes *Lepturus repens*, *Ipomoea pes-caprae* and *Sesuvium portulacastrum*. Occurs on exposed foredunes. Not a Wetland. (BVG1M: 28d).

**Short description:** Mixed open tussock grassland and open forblands or shrublands on exposed foredunes and islands

**Supplementary descriptions:**

**Subregions:** 9, 7, 4, 2, 6, (3), (1), (5), (2.1)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Flinders Group NP (CYPAL), Howick Group NP (CYPAL), Apudthama NP (CYPAL), Turtle Group NP, Lizard Island NP, Annan River (Yuku Baja-Muliku) NP, Possession Island NP, Three Islands Group NP, Lama Lama NP (CYPAL), Yamarrinh Wachangan Islands (Denham Group) NP (CYPAL), Claremont Isles NP, Endeavour River NP, Wuthathi (Saunders Islands) NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Sandbanks NP, Piper Islands NP (CYPAL), Mitirinch Island NP (CYPAL), Marpa National Park (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.24: This regional ecosystem provides an important rookery for sea turtles.  
3.2.24a: This regional ecosystem provides an important rookery for sea turtles.  
3.2.24b: This regional ecosystem provides an important rookery for sea turtles.  
3.2.24c: In a variant (vegetation unit 162A) the shrub layer is dominated by *Dodonaea platyptera*, with *Premna serratifolia* subdominant and *Abrus precatorius* abundant. In a second variant (vegetation unit 162B) *Colubrina asiatica* or *Cordia subcordata* are the dominant shrubs. Included in Littoral Rainforest and Coastal Vine Thickets ecological community (as former RE 3.2.31) protected under the Commonwealth's EPBC act (1999).

**Comments:** 3.2.24: Previously mapped as (part) 3.2.24, 3.2.25, 3.2.31, 3.2.32. Usually these communities exists as a mosaic on the dunes and move around over time. East coast and the Torres Strait islands. Also on west coast just north of Pormpuraaw.  
3.2.24a: Previously mapped as (part) 3.2.24. East coast and the Torres Strait islands. Also on west coast just north of Pormpuraaw.  
3.2.24b: Was previously mapped as 3.2.32 and (part) 3.2.24. Great Barrier Reef and Torres Strait islands.  
3.2.24c: Was previously mapped as 3.2.5 and 3.2.31. Coastal dunes across the Peninsula, predominantly on the west coast and from Cooktown to Bathurst Bay. Great Barrier Reef and Torres Strait islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 15000 ha; Remnant 2021 15000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Subject to weed invasion and inappropriate fire regimes.

## Regional ecosystem 3.2.25

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.24c. A variety of forbs and graminoids occur, but only form a very sparse ground layer (20-50cm tall). *Perotis rara* (comet grass) and *Bulbostylis barbata* (watergrass) frequently have the highest cover, with *Sarga plumosum* (plume sorghum) dominating less frequently. Very sparse emergent shrubs (0.5-1.5m tall) and low trees (3-6m tall) may occur. *Grevillea parallela* (silver oak) is the most frequent tree and shrub. Associated with foredunes and low beach ridges along the coast. Not a Wetland. (BVG1M: 28d).

**Short description:** Sparse herbland of mixed herbaceous species on foredunes and beach ridges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 196; Stanton, Fell & Gooding (2008), D14y, D16i.

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.25: Coastal dunes across the Peninsula, predominantly on the west coast and from Cooktown to Bathurst Bay. The naturalised species *Chloris inflata*\* and *Dactyloctenium aegyptium*\* can sometimes be dominant in the ground layer.

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

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.2.26

**Description:** Sparse herbland/shrubland which can include *Acacia crassicarpa*, *Alyxia spicata*, *Leucopogon* spp. and *Sersalisia sericea* in the shrub layer and a very sparse ground layer with *Dapsilanthus spathaceus*, *Mitrasacme paludosa* and *Xyris complanata*. An emergent layer with *Acacia crassicarpa* or *Corymbia novoguineensis* can occur. The majority of this regional ecosystem is devoid of vegetation and consists of actively moving wind-blown sand blows and sand cays that are inundated during very high tides. Areas naturally devoid of vascular plants, predominantly sand blows. Not a Wetland. (BVG1M: 28d).

**Short description:** Sparse herbland and/or shrubland and bare sand areas predominantly on sand blows

**Supplementary descriptions:** Neldner and Clarkson (in prep), 198; Stanton, Fell & Gooding (2008), D14s.

**Subregions:** 4, 2, (6), (3), (9), (1)

**Protected areas:** Wuthathi (Shelburne Bay) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Apudthama NP (CYPAL), Cape Melville NP (CYPAL), Wuthathi (Saunders Islands) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.26: Potential habitat for NCA listed species: *Dendrobium bigibbum*, *Dendrobium johannis*.

**Comments:** 3.2.26: In areas where the dunes are beginning to stabilise, a gegenvalle landscape develops where low shrubs occur on small raised areas with bare sand occurring between these areas. Mainly associated with the extensive dunefields in Shelburne Bay and Cape Flattery but occurs elsewhere on coast and cays.

**Estimated extent:**<sup>1</sup> Pre-clearing 14000 ha; Remnant 2021 14000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.2.27

**Description:** *Lepironia articulata* (grey rush) open sedgeland around the margins of perennial lakes. It occurs in water depths of up to 1.5m. The deeper areas of the lakes are vegetation-free. On the shallow lake margins, *Schoenus calostachyus*, *Dapsilanthus ramosus* and *Machaerina teretifolia* may occur in sparse swards. Occasional shrubs may be present on the lake margins. Occurs along the fringes of perennial lakes and dune swales in coastal dunefields. Lacustrine. (BVG1M: 34a).

Vegetation communities in this regional ecosystem include:

3.2.27a: *Lepironia articulata* (grey rush) forms an open sedgeland around the margins of the perennial lakes. It occurs in water depths of up to 1.5m. The deeper areas of the lakes are vegetation-free. These generally brown-coloured, tannin-rich lakes do not support many aquatic species. On the shallow lake margins, *Schoenus calostachyus*, *Dapsilanthus elatior* and *Machaerina teretifolia* may occur in sparse swards. Occasional shrubs may be present on the lake margins. Occurs in shallow lakes in east coast dunefields. Lacustrine. (BVG1M: 34a).

3.2.27b: The floristic composition and dominance of this vegetation community varies with locality and is determined by the interaction of such factors as substrate, water depth and frequency and duration of flooding. While shallow open water is common in these wetlands they are usually shallow and may dry completely in the dry season. The floating plants such as *Monochoria* spp. (*monochoria*) and *Nymphoides* spp. (*marshworts*) may dominate in some areas while the bottom-rooted *Ludwigia perennis* (*water primrose*), *Nymphaea* spp. (*water lily*) and *Caldesia oligococca* (*caldesia*) are dominant in other areas. Tall graminoids that emerge above the water surface such as *Eleocharis* spp. (*bulkaru*), *Oryza rufipogon* (*wild rice*) and *Panicum trichoides* (*a native panic*) are frequently present and dominate in some areas. Emergent forbs such as *Aeschynomene* spp., *Melochia corchorifolia* and *Sesbania* spp. also occur frequently. Occurs in dunes swales. Palustrine. (BVG1M: 34f).

3.2.27x1a: *Pseudoraphis spinescens* or *Cynodon dactylon* grasslands swamps. Forbs, such as *Pterocaulon* spp., may be present. Emergent forbs such as *Aeschynomene* spp., *Melochia corchorifolia* and *Sesbania* sp. Also occur frequently. *Melaleuca* spp., *Barringtonia acutangula* or vine thicket species may occur as emergents but are commonly a fringing woodland. Occur in dune swales. Palustrine. (BVG1M: 34f).

3.2.27x1b: *Phragmites* grassland in ephemeral swamps in dunefields. Often occurring in a mosaic with *Pseudoraphis spinescens* grassland (3.2.27x1a) or *Sesbania* shrubland (3.2.27x1c) and ringed with *Barringtonia acutangula*. Occurs in dune swales. Palustrine. (BVG1M: 34f).

3.2.27x1c: *Sesbania cannabina* shrubland in ephemeral swamps in dune swales. *Persicaria* sp. may form a sparse ground layer. Occurs in dune swales. Palustrine. (BVG1M: 34f).

3.2.27x2: Mixed tussock grassland or sedgeland including combinations of *Fimbristylis* spp., *Mnesithea rottboellioides*, *Oryza* spp. *Eriochloa crebra*, *Ischaemum* spp., *Panicum* spp., *Dichanthium sericeum*, *Eriachne burkittii*. Forbs are common and can include as *Ipomoea coptica*, *Crotalaria montana* and *Aeschynomene indica*. Emergents of *Melaleuca viridiflora*, *Pandanus spiralis* and *Acacia* spp. may occur. Occurs in dune swales of old degraded dunefields. Not a Wetland. (BVG1M: 32a).

**Short description:** Sedgelands fringing perennial lakes in coastal dunefields

**Supplementary descriptions:**

**Subregions:** 9, 2, 4, (7), (6), (2.1), (1), (3), (8)

**Protected areas:** Wuthathi (Shelburne Bay) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Apudthama NP (CYPAL), Cape Melville NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Lacustrine

**Special values:** 3.2.27: Potential habitat for NCA listed species: *Myriophyllum coronatum*.  
3.2.27a: Tannin-rich lakes with low diversity of aquatic species.

<b>Comments:</b>	<p>3.2.27: Was previously mapped as 3.2.27a. These generally brown-coloured, tannin-rich lakes do not support many aquatic species. In shallow swampy areas, <i>Gahnia sieberiana</i> and <i>Baloskion tetraphyllum</i> subsp. <i>meiostachyum</i> may dominate a sedgeland to closed sedgeland. Concentrated in lakes within Shelburne Bay and Cape Flattery dunefields, but also along other areas of the east coast and some Torres Strait islands.</p> <p>3.2.27a: In shallow swampy areas, <i>Gahnia sieberiana</i> and <i>Baloskion tetraphyllum</i> subsp. <i>meiostachyum</i> may dominate a sedgeland to closed sedgeland. Concentrated in lakes within Shelburne Bay and Cape Flattery dunefields, but also along other areas of the east coast and some Torres Strait islands.</p> <p>3.2.27b: Shelburne Bay and Cape Flattery dunefields.</p> <p>3.2.27x1a: Most commonly occur on the west coast of the bioregion. This vegetation community is heavily grazed and disturbed by cattle and feral pigs.</p> <p>3.2.27x1b: On the west coast of the bioregion.</p> <p>3.2.27x1c: On the west coast of the bioregion. Heavily disturbed by cattle and feral pigs.</p> <p>3.2.27x2: This regional ecosystem, although occurring on old degraded dunefields, has close affinities with 3.3.61. Occurs on the west coast of the bioregion.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 23000 ha; Remnant 2021 23000 ha
<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 3.2.28

**Description:** Semi-deciduous notophyll vine forest often with *Manilkara kauki* (Wongai plum), *Millettia pinnata* and *Terminalia* spp. Restricted to beach ridges on the coral atolls, shingle cays and sand cays. Not a Wetland. (BVG1M: 3a).

Vegetation communities in this regional ecosystem include:

3.2.28a: Semi-deciduous notophyll vine forest. *Manilkara kauki* (Wongai plum) is the most common dominant species. *Mimusops elengi* (tanjong), *Erythrina variegata* (bat wing coral tree), *Eugenia reinwardtiana*, *Terminalia arenicola* (brown damson), *T. muelleri* (Mueller's damson) and *Gyrocarpus americanus* may frequently be codominant canopy trees. A sparse subcanopy and/or shrublayer sometimes occurs and can include canopy species, *Diospyros* spp., *Micromelum minutum* and *Exocarpos latifolius*. *Abrus precatorius* is a common vine. The ground layer is very sparse and composed of a variable mix of herb and graminoid species. Restricted to beach ridges on the coral atolls, shingle cays and sand cays. Not a Wetland. (BVG1M: 3a).

3.2.28b: Semi-deciduous notophyll vine forest. Dominant species include *Manilkara kauki*, *Drypetes deplanchei*, *Diospyros maritima*, *Aglaia elaeagnoides*, *Millettia pinnata* and *Erythrina variegata*. A mid-dense subcanopy and/or shrublayer often contains canopy species plus *Micromelum minutum*. The sparse ground layer mostly contains seedlings of canopy species. Restricted to beach ridges on continental islands, coral atolls, shingle cays and sand cays. Not a Wetland. (BVG1M: 3a).

**Short description:** Semi-deciduous notophyll vine forest on beach ridges, coral atolls, shingle cays and sand cays

**Supplementary descriptions:**

**Subregions:** 3, 2, 4, (5), (9)

**Protected areas:** Lizard Island NP, Yamarrinh Wachangan Islands (Denham Group) NP (CYPAL), Three Islands Group NP, Wuthathi (Saunders Islands) NP (CYPAL), Possession Island NP, Flinders Group NP (CYPAL), Howick Group NP (CYPAL), Marpa National Park (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.28: Potential habitat for NCA listed species: *Syzygium aqueum*.

**Comments:** 3.2.28: Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). Great Barrier Reef and Torres Strait Islands.

3.2.28a: Great Barrier Reef and Torres Strait Islands.

3.2.28b: Was previously mapped as 3.2.2b. *Erythrina variegata* forms the dominant canopy on Gaboy Island. This vegetation community supports the threatened species *Dendrobium bigibbum* (Cooktown Orchid), *Psydrax reticulata* and *Alectryon repandodentatus*. Torres Strait Islands. Communities where they occur on Tudu and Aureed islands are reported to have been heavily impacted by firewood harvesting for the trepang industry.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Rare ecosystem < 1000ha pre-clearing extent impacted by clearing for settlement and weed invasion.

### Regional ecosystem 3.2.29

**Description:** *Pisonia grandis* closed forest to low closed forest. A very sparse to mid-dense shrub layer is occasionally present. The canopy is completely deciduous in the dry season, and consequently the ground is covered with a thick layer of humus and rotting leaves, which excludes most herbs. Restricted to a few scattered sand cays and some small patches on mainland islands which are well off shore. Not a Wetland. (BVG1M: 3a).

**Short description:** *Pisonia grandis* closed forest restricted to a few scattered sand cays

**Supplementary descriptions:** Neldner and Clarkson (in prep), 128

**Subregions:** 2, 4

**Protected areas:** Three Islands Group NP, Yamarrinh Wachangan Islands (Denham Group) NP (CYPAL) , Howick Group NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.2.29: Important breeding habitat for seabirds.

**Comments:** 3.2.29: Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). Height varies according to exposure to winds. Great Barrier Reef sand cays, Mitirinch and Quoin Islands. Highly susceptible to degradation from cyclones, fires, insect attack and human disturbance.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Threatening processes other than clearing.

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### Regional ecosystem 3.2.30

**Description:** *Pemphis acidula* low closed forest. Other mangrove species may be present as low trees. *Rhizophora stylosa* and *Avicennia marina* (grey mangrove) are often present in the canopy as well. A sparse mixed shrub layer (1-4m tall) is sometimes present. The sparse to mid-dense ground layer usually contains *Sesuvium portulacastrum* with *Ipomoea pes-caprae* and *Suaeda australis* also common. A closed scrub of *P. acidula* with emergent mangrove species can also occur. Restricted to the coral atolls, shingle cays and sand cays. Intertidal. (BVG1M: 35a).

**Short description:** *Pemphis acidula* low closed forest on coral atolls, shingle cays and sand cays

**Supplementary descriptions:** Neldner and Clarkson (in prep), 133; Stanton, Fell & Gooding (2008), D23b.

**Subregions:** 4, 3, 2, 1

**Protected areas:** Yamarrinh Wachangan Islands (Denham Group) NP (CYPAL) , Three Islands Group NP, Turtle Group NP, Wuthathi (Sir Charles Hardy Group) NP (CYPAL), Wuthathi (Saunders Islands) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Intertidal

**Special values:** 3.2.30: Provides estuarine wetland habitat.

**Comments:** 3.2.30: It can occur in three situations: (1) on seaward shores of sand cays, (2) most frequently on the inner margins of conglomerate platforms on the windward sides of low woodland islands, and (3) at the junction of the sand cays and mangroves. Great Barrier Reef and Torres Strait islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 30 ha; Remnant 2021 30 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.2.31

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.24c. *Premna serratifolia* (coastal *Premna*) dominates the variable canopy, which ranges in height from 1 to 4.5 metres and from sparse to dense cover. *Colubrina asiatica*, *Mimusops elengi* (tanjong), *Guilandina bonduc*, *Eugenia reinwardtiana* and *Exocarpos latifolius* may be present as subdominant shrubs. Scattered emergent trees up to 8m are sometimes present. The ground layer is sparse to mid-dense, and dominated by a variety of herbs including *Ipomoea pes-caprae*, *Lepturus repens* and *Sporobolus virginicus*. Restricted to the coral cays and sand cays. Not a Wetland. (BVG1M: 3a).

**Short description:** *Premna serratifolia* closed scrub on coral atolls, shingle cays and sand cays

**Supplementary descriptions:** Neldner and Clarkson (in prep), 162

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.31: In a variant (vegetation unit 162A) the shrub layer is dominated by *Dodonaea platyptera*, with *Premna serratifolia* subdominant and *Abrus precatorius* abundant. In a second variant (vegetation unit 162B) *Colubrina asiatica* or *Cordia subcordata* are the dominant shrubs. The shrub and ground layer composition is similar to 3.2.31. Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). Great Barrier Reef and Torres Strait islands.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.2.32

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.2.24b. *Lepturus repens* usually dominates the dense ground layer. The creeping vines, *Ipomoea pes-caprae* and *Canavalia rosea*, and forb *Tribulus cistoides* also occur at high projective foliage covers. Emergent shrubs (1-3m tall) and low trees up to 8 metres tall may be present, but are generally very sparse. *Premna serratifolia* (coastal *Premna*), *Scaevola taccada* and *Clerodendrum inerme* are the most frequent shrubs. Restricted to the sand cays. Not a Wetland. (BVG1M: 28d).

**Short description:** *Lepturus repens* closed herbland on sand cays

**Supplementary descriptions:** Neldner and Clarkson (in prep), 192

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.2.32: Variants of this 3.2.32 occur with either *Spinifex sericeus*, *Sporobolus virginicus* or *Urochloa subquadriflora* dominating the mid-dense to dense ground layer. Great Barrier Reef and Torres Strait islands.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.2.33

<b>Description:</b>	<i>Gahnia sieberiana</i> (saw sedge) shrubland, commonly with <i>Asteromyrtus lysicephala</i> (back to front bush) and other heath species. <i>Banksia robur</i> (swamp banksia), <i>Melaleuca polandii</i> and <i>Leptospermum polygalifolium</i> also are present in the Cape Flattery dunefields. <i>Pandanus solms-laubachii</i> can also occur as a co-dominant as well as a scattered emergent along with <i>Lophostemon suaveolens</i> . Can also occur as a tall sedgeland with dominants including <i>Baloskion tetraphyllum</i> subsp. <i>meiostachyum</i> , <i>Scleria rugosa</i> and <i>Ischaemum australe</i> var. <i>villosum</i> . Occurs in drainage swamps in east coast dunefields. Palustrine. (BVG1M: 34c).
<b>Short description:</b>	<i>Gahnia sieberiana</i> open to closed heath in drainage swamps in east coast dunefields
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 191c
<b>Subregions:</b>	2, 4, 1, (6)
<b>Protected areas:</b>	Apudthama NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Endeavour River NP, Cape Melville NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	
<b>Comments:</b>	3.2.33: The distinction between this community occurring on land zone 2 & land zone 3 becomes diffuse at the landward side of dune systems. East coast dunefields from Cape Flattery to the tip. Also on west coast north of Skardon River.
<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 3.3.1

<b>Description:</b>	Semi deciduous mesophyll to notophyll vine forest which can include <i>Nauclea orientalis</i> (Leichhardt tree), <i>Bombax ceiba</i> (kapok), <i>Semecarpus australiensis</i> (tar tree), <i>Terminalia sericocarpa</i> (sovereignwood), <i>Canarium australianum</i> (scrub turpentine), <i>Gyrocarpus americanus</i> (helicopter tree), <i>Castanospermum australe</i> (black bean), <i>Aleurites moluccanus</i> (candlenut) (candlenut) and <i>Alstonia scholaris</i> (milky pine). <i>Corypha utan</i> (cabbage palm) is a distinctive component of the unit in the south. A very sparse shrub/low tree layer is usually present. Mainly occurs in catchments on loamy alluvia. Riverine. (BVG1M: 4b).
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Vegetation communities in this regional ecosystem include:

3.3.1a: Semi-deciduous notophyll vine forest. *Ficus albipila* var. *albipila* and *Tetrameles nudiflora* are commonly emergent. Canopy species can include *Adenanthera pavonina*, *Aglaia spectabilis*, *Albizia retusa*, *Celtis hildebrandii*, *Castanospermum australe* (black bean), *Aleurites moluccanus* (candlenut), *Alstonia scholaris* (milky pine), *Argyrodendron polyandrum* (brown tulip oak), *Beilschmiedia obtusifolia* (black walnut), *Blepharocarya involucrigera*, *Buchanania arborescens* (native mango), *Celtis hildebrandii*, *Cordia dichotoma*, *Cryptocarya hypospodia*, *Dysoxylum latifolia*, *Dysoxylum papuanum* and *Endiandra longipedicellata* (buff walnut), *Endiandra impressicosta*, *Ficus albipila*, *Ficus racemosa*, *Nauclea orientalis* (Leichhardt tree), *Neonauclea glabra*, *Palaquium galactoxylon*, *Semecarpus australiensis* (tar tree), *Syzygium bamagense*, *Syzygium malaccense*, *Syzygium pseudofastigiatum*, *Terminalia complanata*, *Terminalia sericocarpa* (sovereignwood) and *Wrightia laevis* (white cheesewood). A sparse to very dense sub-canopy can include *Berrya javanica*, *Cryptocarya rhodosperma*, *Endiandra impressicosta*, *Margaritaria indica*, *Mallotus philippensis* (red kamala), *M. polyadenos* (kamala), *Myristica globosa* subsp. *Muelleri* (Queensland nutmeg), *Planchonella obovata*, *Arytera divaricata* (rose tamarind), *Pisonia umbellifera* (cabbage wood), *Toeckima daemelianum* (Cape tamarind) and *Diospyros maritima* (ebony). The palms *Ptychosperma elegans* (solitaire palm) and *Archontophoenix tuckeri* are often present. The sparse to mid-dense shrub layer can include *Cleistanthus apodus* (weeping cleistanthus), *Glycosmis trifoliata*, *Atractocarpus sessilis* (false gardenia), *Leea novoguineensis* (bandicoot berry), *Lunasia amara* var. *amara*, *Diospyros laurina* and *Cryptocarya hypospodia* (northern laurel). The ground layer is very sparse and composed mainly of seedlings. Mainly occurs in catchments on loamy alluvia. Riverine. (BVG1M: 4b).

3.3.1b: Semi-deciduous mesophyll vine forest. *Bombax ceiba*, *Alstonia scholaris* or *Ficus albipila* var. *albipila* emergents up to 30m tall occasionally occur. Common canopy species can include *Alstonia scholaris*, *Argyrodendron polyandrum*, *Beilschmiedia obtusifolia*, *Buchanania arborescens*, *Cryptocarya hypospodia*, *Terminalia sericocarpa*, *Canarium australianum*, *Syzygium tierneyanum*, *Barringtonia calyptrata*, *Blepharocarya involucrigera*, *Endiandra longipedicellata*, *Myristica globosa* subsp. *muelleri*, *Semecarpus australiensis*, *Wrightia*

laevis, *Acacia polystachya*, *Bombax ceiba* var. *leiocarpum*, *Calophyllum australianum*, *Cleistanthus apodus*, *Elaeocarpus grandis*, *Falcata toona*, *Ficus racemosa*, *Miliusa horsfieldii*, *Pisonia umbellifera*, *Podocarpus grayae*, *Premna acuminata*, *Syzygium cormiflorum*, *Trema orientalis*, *Tristaniopsis exiliflora*. Sub-canopy species usually include *Arytera divaricata*, *Atractocarpus sessilis*, *Austrosteenisia blackii*, *Castanospermum australe*, *Ficus copiosa*, *Mallotus philippensis*, *Myristica insipida*, *Pisonia umbellifera*, *Planchonella obovata*, *Salacia disepala*, *Trophis scandens* subsp. *scandens*. Other sub-canopy species including *Aglaia sapindina*, *Aidia racemosa*, *Alchornea rugosa*, *Alphitonia excelsa*, *Ampelocissus acetosa*, *Atalaya* spp., *Austrosteenisia stipularis*, *Calamus australis*, *Callicarpa*, *Callitriche*, *Calophyllum*, *Calophyllum sil*, *Carallia brachiata*, *Carronia protensa*, *Chionanthus ramiflorus*, *Choriceras tricornis*, *Cleistanthus apodus*, *Cryptocarya triplinervis* var. *riparia*, *Cupaniopsis anacardioides*, *Decalobanthus peltatus*, *Derris trifoliata*, *Diospyros geminata*, *Diospyros maritima*, *Entada phaseoloides*, *Epipremnum pinnatum*, *Erycibe coccinea*, *Ficus fraseri*, *Ficus racemosa*, *Flacourtia* spp., *Ganophyllum falcatum*, *Glochidion philippicum*, *Glycosmis trifoliata*, *Gossia bidwillii*, *Gymnanthera oblonga*, *Hippocratea barbata*, *Ichnocarpus frutescens*, *Jagera pseudorhus* var. *pseudorhus*, *Jasminum simplicifolium* subsp. *australiense*, *Leea novoguineensis*, *Macaranga tanarius*, *Mallotus polyadenos*, *Melodorum leichhardtii*, *Micromelum minutum*, *Miliusa brahei*, *Miliusa horsfieldii*, *Millettia pinnata*, *Mimusops elengi*, *Myristica globosa* subsp. *muelleri*, *Pleiogynium timorense*, *Premna serratifolia*, *Rhamnella vitiensis*, *Stictocardia tiliifolia*, *Streblus brunonianus*, *Strychnos minor*, *Tetracera nordtiana*, *Tristaniopsis exiliflora*, *Tritaxis australiensis*, *Wrightia laevis* commonly occur. The cabbage palm *Corypha utan* is a distinctive component of this subunit along the Laura river. *Oplismenus mollis*, *Panicum trichoides* and *Rhynchospora heterochaeta* are frequent graminoids. Alluvial floodplains & riverbanks in south-eastern Cape York Peninsula. Riverine. (BVG1M: 4b).

3.3.1c: Semi-deciduous mesophyll vine forest dominated by *Terminalia catappa*, *Acacia auriculiformis* and *Myristica insipida*. Occurs on loamy alluvia. Not a Wetland. (BVG1M: 4b).

3.3.1d: Evergreen to semi-deciduous vine forest dominated by *Buchanania arborescens* (native mango), *Acacia polystachya* (wattle), *Canarium australianum* (mango bark), *Beilschmiedia obtusifolia* (blush walnut) and *Cryptocarya hypospodia* (northern laurel) with *Podocarpus grayae* (northern brown pine) and *Syzygium forte* (white apple). *S. bamagense* (Bamaga satinash) is also dominant where present and can also be emergent. The sub-canopy often includes *Cryptocarya cunninghamii*, *Garcinia dulcis* (Claudie mangosteen), *Polyscias elegans* (celery wood) and *Ptychosperma elegans* (solitaire palm). The vines *Flagellaria indica* (supplejack) and *Calamus* spp. (lawyer cane) are often present. The shrub layer commonly includes *Atractocarpus sessilis* (native Gardenia), *Aglaia euryanthera*, and *Cleistanthus* spp. as well as juvenile canopy species. The sparse ground layer often has *Dianella* spp. and seedlings. Occurs on levees and floodplains. Not a Wetland. (BVG1M: 4b).

3.3.1x1: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.1d. Simple evergreen notophyll vine forest dominated by *Buchanania arborescens* (satinwood), *Beilschmiedia obtusifolia* (blush walnut), *Blepharocarya involucrigera* (rose butternut), *Cryptocarya hypospodia* (northern laurel), *C. triplinervis* (brown laurel) and *Mallotus polyadenos* (kamala). A sparse mixed subcanopy often includes *Helicia australasica* (creek silky oak) and *Cryptocarya* spp. (laurels) and vine species *Flagellaria indica* (supplejack), *Austrosteenisia blackii* (blood vine) and *Hippocratea barbata* (knot vine). An open shrub layer includes juvenile canopy species, *Atractocarpus sessilis* (false Gardenia) and *Cleistanthus hylandii*. A very sparse ground layer is composed of seedling trees, graminoids and ferns. Occurs on floodplains. Not a Wetland. (BVG1M: 5d).

**Short description:** Semi-deciduous notophyll vine forest on loamy alluvia

**Supplementary descriptions:**

**Subregions:** 1, 2, 6, (5), (9.3), (7.9), (3)

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Biniirr NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Ngalba-bulal NP (CYPAL), Endeavour River NP, Annan River (Yuku Baja-Muliku) RR, Daarra NP (CYPAL), Kalkajaka NP (CYPAL), Endeavour River RR, Keatings Lagoon CP, Melsonby (Gaarraay) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Riverine

**Special values:** 3.3.1: Potential habitat for NCA listed species: *Aglaia argentea*, *Amomum queenslandicum*, *Anacolosa papuana*, *Calophyllum bicolor*, *Dactylophora novae-guineae*, *Dockrillia wassellii*, *Donella lanceolata*, *Hydnophytum ferrugineum*, *Hypserpa polyandra* var. *polyandra*, *Lasia claudiensis*, *Litsea macrophylla*, *Livistona concinna*, *Margaritaria indica*, *Phlegmariurus phlegmarioides*, *Phyllanthera grayi*, *Planchonella xylocarpa*, *Sterculia shillinglawii* subsp. *shillinglawii*, *Tectaria siifolia*, *Tristiropsis acutangula*. 3.3.1x1: The near threatened plant species *Acmena mackinnoniana*, *Margaritaria indica* and *Planchonella xylocarpa* occur in this ecosystem. High numbers of endemic plant species. Large numbers of near threatened butterfly species.

<b>Comments:</b>	<p>3.3.1: RE 3.3.2 was amalgamated into this RE. Claudie, Normanby and Laura Rivers and Torres Strait.</p> <p>3.3.1a: Is differentiated from similar semi-deciduous notophyll vine forest in southern Cape York Peninsula (3.3.1b) by geographic distribution as well as higher abundance of climbing palms, feather palms and pandans, climbing ferns, epiphytes and hemi-epiphytes. 3.3.1 is also in the higher rainfall zone of the northern CYP than 3.3.1b. Occurs in northern and north-eastern Cape York Peninsula.</p> <p>3.3.1b: The cabbage palm <i>Corypha utan</i> is a distinctive component of this subunit along the Laura river. This unit has floristic affinities with the northern parts of the Wet Tropics. South-eastern Cape York Peninsula. <i>Senna siamea</i>, an introduced tree species has become naturalised around old Laura and is spreading downstream along the Laura River. A large number of naturalised weeds are present in the dense ground layer that occurs where the canopy is sparse, including <i>Achyranthes aspera</i>, <i>Mesosphaerum suaveolens</i>, <i>Ipomoea quamoclit</i>, <i>Physalis minima</i> and <i>Synedrella nodiflora</i>.</p> <p>3.3.1c: Torres Strait. Exotic species such as <i>*Cocos nucifera</i> (coconut palm) and <i>*Mangifera indica</i> (mango) are naturalised in this community.</p> <p>3.3.1d: Was previously mapped as 3.3.1x1. Well developed forests. Downstream this unit merges into 3.3.4. This vegetation community is not mapped and included in areas mapped as 3.3.1a. Between Cooktown and Mt. Webb national park and near Lockhardt River.</p> <p>3.3.1x1: Between Cooktown and Mt. Webb national park and small areas on Torres Strait islands.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 46000 ha; Remnant 2021 45000 ha
<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 3.3.2

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped within 3.3.1. Semi-deciduous notophyll vine forest which often contains *Castanospermum australe*, *Cryptocarya hypospodia*, *Beilschmiedia obtusifolia*, *Buchanania arborescens* (native mango), *Terminalia sericocarpa*, *Ficus racemosa* var. *racemosa* and *Nauclea orientalis*. There is a floristically distinct sparse to mid-dense sub-canopy tree layer and a very sparse shrub/low tree layer. An evergreen variant commonly containing *Acacia* spp. (wattle) is probably a result of fire or cyclone damage. Occurs on alluvia. Not a Wetland. (BVG1M: 4b).

Vegetation communities in this regional ecosystem include:

3.3.2a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.1a. The dense, more or less even canopy (18-23m tall) is composed of a mixture of deciduous and evergreen trees. *Castanospermum australe*, *Cryptocarya hypospodia*, *Beilschmiedia obtusifolia*, *Buchanania arborescens* (native mango), *Carallia brachiata*, *Cryptocarya mackinnoniana*, *Cryptocarya triplinervis* var. *riparia* and *Blepharocarya involucrigera* are frequent evergreen components of the canopy, occurring at high stem densities in some areas. Frequent deciduous canopy trees include *Terminalia sericocarpa*, *Ficus racemosa* var. *racemosa*, *Nauclea orientalis*, *Bombax ceiba*, *Semecarpus australiensis*, and *Wrightia laevis*. Emergent *Alstonia scholaris* (milky pine) trees up to 42 metres tall are frequently present. The sparse to mid-dense sub-canopy tree layer (6-15m tall) is composed of a variety of species with *Chionanthus ramiflorus*, *Antirhea tenuiflora*, *Aglaia sapindina*, *Helicia australasica*, *Macaranga tanarius*, *Mallotus philippensis*, *M. polyadenos*, *Pisonia umbellifera* and *Atractocarpus sessilis*. The palms, *Archontophoenix tuckeri* and less frequently *Normanbya normanbyi* are present in the sub-canopy. A very sparse shrub/low tree layer (0.5-6m tall) is usually present with *Cleistanthus apodus*, *Guioa acutifolia*, *Eupomatia laurina*, *Dichapetalum papuanum*, *Ixora timorensis*, *Psychotria dallachiana* and *Atractocarpus sessilis* occurring frequently. Epiphytes are relatively sparse. The ground layer is very sparse, and composed mainly of seedlings. Occurs on alluvia. Not a Wetland. (BVG1M: 4b).

3.3.2b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.1d. A fairly even, closed canopy dominated mainly by *Acacia polystachya* (a wattle), *A. midgleyi* (brown salwood) or *Blepharocarya involucrigera* (rose butternut). *Canarium australianum* (scrub turpentine), *Grevillea baileyana* (Findlay's silky oak) *Lophostemon suaveolens* (swamp mahogany), *Argyrodendron polyandrum* (brown tulip oak) and *Buchanania arborescens* (native mango) are often present and subdominant in the canopy. *Eucalyptus* spp. form a sparse emergent layer in places. The sub-canopy layer consists of a variety of evergreen species with *Cryptocarya cunninghamii* (coconut laurel), *C. vulgaris* (northern laurel), *Dysoxylum acutangulum* subsp. *foveolatum*, *Endiandra glauca* (coach walnut) and *Chionanthus ramiflorus* (native olive) the most frequent trees. A sparse, low tree layer (0.5-10m tall) is usually present. *Atractocarpus sessilis* (native gardenia), *Diploglottis macrantha*, *Tabernaemontana orientalis*, *Cryptocarya claudiana*, *Wilkiea rigidifolia* and *Cupaniopsis flagelliformis* (brown tuckeroo) are frequently present in this layer. Scattered slender vines such as *Flagellaria indica* (supplejack) and *Tetracera nordtiana* var. *nordtiana*, are frequent. The climbing palms, *Calamus caryotoides* (fish-tail lawyer vine) and *C. australis* (hairy mary) are often present, and form dense thickets in disturbed areas. Epiphytes such as *Drynaria quercifolia* are relatively scarce. A very sparse ground layer is composed of seedling trees, graminoids and ferns. Occurs on floodplains. Not a Wetland. (BVG1M: 5d).

3.3.2x1: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.1d. A fairly even, closed canopy dominated mainly by *Acacia polystachya* (a wattle), *A. midgleyi* (brown salwood) or *Blepharocarya involucrigera* (rose butternut). *Canarium australianum* (scrub turpentine), *Grevillea baileyana* (Findlay's silky oak) *Lophostemon suaveolens* (swamp mahogany), *Argyrodendron polyandrum* (brown tulip oak) and *Buchanania arborescens* (native mango) are often present and subdominant in the canopy. *Eucalyptus* spp. form a sparse emergent layer in places. The sub-canopy layer consists of a variety of evergreen species with *Cryptocarya cunninghamii* (coconut laurel), *C. vulgaris* (northern laurel), *Dysoxylum acutangulum* subsp. *foveolatum*, *Endiandra glauca* (coach walnut), *Chionanthus ramiflorus* (native olive) and *Epipremnum pinnatum* the most frequent trees. A sparse, low tree layer (0.5-10m tall) is usually present. *Atractocarpus sessilis* (native gardenia), *Diploglottis macrantha*, *Tabernaemontana orientalis*, *Cryptocarya claudiana*, *Wilkiea rigidifolia* and *Cupaniopsis flagelliformis* (brown tuckeroo) are frequently present in this layer. Scattered slender vines such as *Flagellaria indica* (supplejack) and *Tetracera nordtiana* var. *nordtiana*, are frequent. The climbing palms, *Calamus caryotoides* (fish-tail lawyer vine) and *C. australis* (hairy mary) are often present, and form dense thickets in disturbed areas. Epiphytes such as *Drynaria quercifolia* are relatively scarce. A very sparse ground layer is composed of seedling trees, graminoids and ferns. Occurs on floodplains. Not a Wetland. (BVG1M: 5d).

**Short description:** Semi-deciduous mesophyll and/or notophyll vine forest on alluvia

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:****Wetland:** Not a Wetland**Special values:** 3.3.2b: The near threatened species *Acmena mackinnoniana*, *Archidendron hirsutum*, *Cryptocarya claudiana*, *Margaritaria indica* and *Planchonella xylocarpa* occur in this ecosystem. High numbers of endemic plant species. Large numbers of near threatened butterfly species.**Comments:** 3.3.2: Moved to RE 3.3.1. Cooktown in south-east of region. Susceptible to weed invasion in disturbed areas.  
3.3.2a: Moved to RE 3.3.1a. Cooktown in south-east of region and in adjacent Wet Tropics bioregion.  
3.3.2b: Moved to proposed new RE 3.3.2x1. Between Cooktown and Mt. Webb national park. Probable mixed forest community produced by irregular fires or cyclonic damage.  
3.3.2x1: Between Cooktown and Mt. Webb national park and small areas on Torres Strait islands.**Estimated extent:**<sup>1</sup>**VM class:** Least concern**Biodiversity status:** Of concern**Biodiversity status notes:** Under review

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### Regional ecosystem 3.3.3

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.6. Simple evergreen notophyll vine forest +/- *Wodyetia bifurcata* on colluvium of granite ranges. Occurs only on the slopes and colluvial sediments of granite ranges. Not a Wetland. (BVG1M: 2c).**Short description:** Simple evergreen notophyll vine forest +/- *Wodyetia bifurcata* on colluvium of granite ranges**Supplementary descriptions:** Neldner and Clarkson (in prep), 14**Subregions:****Protected areas:****Extent in reserves:****Wetland:** Not a Wetland**Special values:****Comments:** 3.3.3: This RE has moved to 3.12.6.**Estimated extent:**<sup>1</sup>**VM class:** Of concern**Biodiversity status:** Of concern**Biodiversity status notes:**

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### Regional ecosystem 3.3.4

**Description:** Evergreen mesophyll and/or notophyll vine forest. This regional ecosystem varies in structure and floristic composition depending on the position relative to the stream channel, the substrate and the permanence of water flow. A dense, even canopy (15-40m tall) is dominated by a variety of species which may include *Buchanania arborescens* (native mango), *Acacia polystachya*, *Syzygium forte* subsp. *potamophilum*, *S. tierneyanum*, *Blepharocarya involucrigera*, *Melaleuca leucadendra*, *Ilex arnhemensis* subsp. *ferdinandi* and *Dillenia alata*. *Archontophoenix tuckeri* or *A. alexandrae* frequently occur at high densities in the canopy, although more often only reach the sub-canopy. Scattered emergent trees up to 40m in height are common. A sparse to mid-dense, sub-canopy tree layer (4-20m tall) is often present. *Mallotus polyadenos*, *Buchanania arborescens* (native mango), *Barringtonia calyptrata*, *Beilschmiedia obtusifolia*, *Atractocarpus sessilis* and *Syzygium forte* subsp. *potamophilum* are frequent low trees. Deciduous trees such as *Nauclea orientalis* and *Vitex helogiton* may be present in both the canopy and sub-canopy, but are generally infrequent. A variable shrub layer is present with *Cryptocarya hypospodia*, *Atractocarpus sessilis*, *Buchanania arborescens* (native mango), *Calophyllum sil*, *Myristica insipida*, *Caryota* spp., *Cryptocarya brassii*, *Dictyoneura obtusa*, *Mallotus polyadenos* and *Melastoma malabathricum* subsp. *malabathricum* amongst the most frequent species. The ground layer is usually very sparse with scattered herbs and grasses. Scattered vines are present such as *Flagellaria indica*, *Hypserpa laurina* and *Mucuna gigantea*, and often climb into the canopy. Epiphytic ferns such as *Drynaria quercifolia*, *Pyrrosia rupestris* and *Platyserium* spp. occur frequently on the canopy and emergent trees. Occurs on stream banks and terraces. Riverine. (BVG1M: 4b).

<b>Short description:</b>	Evergreen mesophyll and/or notophyll vine forest with <i>Archontophoenix</i> spp. on stream banks
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 16
<b>Subregions:</b>	4, (6), (2), (7)
<b>Protected areas:</b>	Bromley (Ampulin) NP (CYPAL), Batavia NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Cape Melville NP (CYPAL), Endeavour River NP
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Riverine
<b>Special values:</b>	3.3.4: High numbers of endemic plant species. The vulnerable plant species <i>Calamus warburgii</i> , <i>Calamus aruensis</i> and <i>Hydriastele costata</i> and near threatened species <i>Litsea macrophylla</i> , <i>Margaritaria indica</i> and <i>Pandanus zea</i> occur in this ecosystem. High biomass of <i>Archontophoenix</i> species. <i>Archontophoenix tuckeri</i> dominates north of the McIlwraith Range, with <i>A. alexandrae</i> replacing it in the south.
<b>Comments:</b>	3.3.4: The high biomass of these palms is a distinctive feature. <i>Archontophoenix tuckeri</i> occurs northwards from the McIlwraith Range and is replaced by <i>A. alexandrae</i> to the south. McIlwraith Range.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 7000 ha; Remnant 2021 7000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

## Regional ecosystem 3.3.5

**Description:** Evergreen to semi-deciduous notophyll vine forest of variable floristic composition but often including *Lophostemon suaveolens* (swamp mahogany), *Buchanania arborescens* (native mango), *Acacia polystachya*, *Syzygium forte* subsp. *potamophilum* and *Blepharocarya involucrigera* (rose butternut). A sparse to mid-dense, sub-canopy tree layer is often present with a variable shrub layer. This community can extend along watercourses into coastal dunefields. Occurs on alluvia on major watercourses. Riverine. (BVG1M: 4b).

Vegetation communities in this regional ecosystem include:

3.3.5a: Evergreen to semi-deciduous notophyll vine forest. This regional ecosystem varies in structure and floristic composition depending on the position relative to the stream channel, the substrate and the permanence of water flow. It reaches its best development on the banks of the Wenlock River. A sparse to dense, even canopy (12-20m tall) is dominated by a variety of species including *Lophostemon suaveolens*, *Buchanania arborescens* (native mango), *Acacia polystachya*, *Syzygium forte* subsp. *potamophilum*, *Blepharocarya involucrigera*, *Dysoxylum oppositifolium*, *Melaleuca leucadendra*, *Carallia brachiata*, *Mallotus polyadenos*, *Acacia midgleyi* and *Dillenia alata*. Scattered emergent trees up to 30m in height are common. A sparse to mid-dense, sub-canopy tree layer (4-8m tall) is often present. *Endiandra glauca*, *Mallotus polyadenos*, *Buchanania arborescens* (native mango), *Atractocarpus sessilis*, *Syzygium forte* subsp. *potamophilum*, *Chionanthus ramiflorus*, *Millettia pinnata* and *Choriceras tricornis* are frequent low trees. Deciduous trees such as *Nauclea orientalis* and *Vitex heligonit* may be present in both the canopy and sub-canopy but are generally infrequent. A variable shrub layer is present with *Memecylon pauciflorum*, *Atractocarpus sessilis*, *Buchanania arborescens* (native mango), *Alyxia spicata*, *Cleistanthus apodus* and *Myrsine porosa* some of the most frequent species. The ground layer is usually very sparse with scattered herbs and grasses, however, in disturbed areas a dense ground cover of grasses (mainly *Oplismenus* spp.) can occur. Scattered vines are present such as *Flagellaria indica*, *Austrosteenisia blackii*, *Lygodium flexuosum*, *Smilax australis*, *Eustrephus latifolius*, *Hypserpa decumbens* and *Abrus precatorius* which frequently climb into the canopy. Occurs on alluvia on major watercourses. Riverine. (BVG1M: 4b).

3.3.5b: Tall evergreen mesophyll or notophyll vine forest of *Horsfieldia australiana* (Cape nutmeg), *Syzygium bamagense* (Bamaga satinash) or *S. angophoroides* (swamp satinash), *Acmena hemilampra* (watergum) +/- *Buchanania arborescens* (native mango). The sub-canopy generally contains *Licuala ramsayi* (fan palm) and *Pandanus* spp., although *Podocarpus grayae* (brown pine) dominates in one variant. A range of species can be found in the shrub layer. Occurs on sandy alluvium of larger watercourses. Riverine. (BVG1M: 4b).

3.3.5c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.5b. Tall evergreen mesophyll or notophyll vine forest of *Horsfieldia australiana* (Cape nutmeg), *Syzygium bamagense* (Bamaga satinash) or *S. angophoroides* (swamp satinash), *Acmena hemilampra* (watergum) +/- *Buchanania arborescens* (native mango). The sub-canopy generally contains *Licuala ramsayi* (fan palm) and *Pandanus* spp., although *Podocarpus grayae* (brown pine) dominates in one variant. A range of species can be found in the shrub layer. Occurs on sandy alluvium of larger watercourses. Not a Wetland. (BVG1M: 4b).

<b>Short description:</b>	Evergreen to semi-deciduous notophyll vine forest on alluvia on major watercourses
<b>Supplementary descriptions:</b>	
<b>Subregions:</b>	7, 4, 1, 2, 6, (5), (8), (3), (9), (9.3)
<b>Protected areas:</b>	Oyala Thumotang NP (CYPAL), Apudthama NP (CYPAL), Cape Melville NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Batavia NP (CYPAL), Biniir NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Lizard Island NP, Endeavour River NP, Daarrba NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Riverine
<b>Special values:</b>	3.3.5: High numbers of endemic plant species. The vulnerable plant species <i>Gardenia psidioides</i> , and near threatened species <i>Donella lanceolata</i> , <i>Croton brachypus</i> and <i>Litsea macrophylla</i> occur in this ecosystem. Important wildlife corridor for closed forest species.
<b>Comments:</b>	3.3.5: Stream bank species such as <i>Syzygium tierneyanum</i> , <i>Casuarina cunninghamiana</i> , <i>Eucalyptus tereticornis</i> and <i>Melaleuca leucadendra</i> are frequently present. This RE reaches its best development in the bioregion along the banks of the Wenlock River. High usage by cattle, and hence frequently weed-infested. Local disturbance by human camping activities. 3.3.5a: When disturbed the exotic forb <i>Triumfetta rhomboidea</i> * is often present. 3.3.5b: Restricted to Moa Island, Torres Strait. 3.3.5c: Restricted to Moa Island, Torres Strait.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 72000 ha; Remnant 2021 72000 ha

**VM class:** Least concern  
**Biodiversity status:** No concern at present  
**Biodiversity status notes:**

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### Regional ecosystem 3.3.6

**Description:** Evergreen notophyll vine forest. A mid-dense to dense, even canopy (12-30m tall) is dominated by a variety of species including *Buchanania arborescens* (native mango), *Syzygium forte* subsp. *potamophilum*, *Deplanchea tetraphylla*, *Lophostemon suaveolens* (swamp mahogany) and *Dillenia alata* (red beech). Scattered emergent trees of *Melaleuca* spp. up to 33m in height are common, and in places form a sparse canopy. A sparse to mid-dense, sub-canopy tree layer (4-25m tall) is usually present. *Dillenia alata* is the most frequent species in this layer. The palms, *Ptychosperma elegans*, *P. macarthurii*, *Licuala ramsayi* (fan palm) and *Archontophoenix alexandrae* are conspicuous at some sites. Deciduous trees are generally infrequent. A variable shrub/low tree layer is present with *Atractocarpus sessilis*, *Licuala ramsayi*, *Alyxia spicata* (chain fruit), *Calophyllum sil*, *Dillenia alata*, *Hydriastele wendlandiana* and *Tabernaemontana orientalis* (banana bush) the most commonly encountered species. The ground layer is usually very sparse. Scattered ferns, *Lindsaea* spp., *Lygodium flexuosum* and *Nephrolepis hirsutula* may be locally abundant. Vines such as *Flagellaria indica*, *Opilia amentacea* and *Smilax australis* are occasionally present. Associated with swamps on alluvial plains. It also occurs on swamps in dune systems. Palustrine. (BVG1M: 4b).

**Short description:** Evergreen notophyll vine forest with *Melaleuca leucadendra* on swamps  
**Supplementary descriptions:** Neldner and Clarkson (in prep), 19; Stanton, Fell & Gooding (2008), A3c.  
**Subregions:** 6, 2, 1, 5, (7), (3), (9), (4)  
**Protected areas:** Cape Melville NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Apudthama NP (CYPAL)  
**Extent in reserves:** High  
**Wetland:** Palustrine  
**Special values:** 3.3.6: The near threatened species *Croton brachypus* occurs in this ecosystem.  
**Comments:**  
**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 3.3.7

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.10.5c. A tall semi-deciduous notophyll/microphyll vine thicket. The canopy varies from 18 to 30m with occasional emergents of *Falcataria toona* (red siris), *Bombax ceiba* (kapok) and *Canarium australium* (scrub turpentine) up to 33m tall. *Buchanania arborescens* (native mango), *Millettia pinnata* (*Millettia*), *Barringtonia calyptata* (cornbeef wood), *Carallia brachiata* (corkwood), *Elaeocarpus arnhemicus* (Arnhem land quandang), *Mallotus philippensis* (red camala) and *Pleiogynium timorens* (Burdekin plum) are frequent dominant trees. *Miliusa traceyi*, *Drypetes deplanchei* (yellow tulip) *Memecylon pauciflorum*, *Aidia racemosa* (wild randia) and *Arytera bifoliolata* (Cape coogara) occur commonly in the sparse shrub layer (0.5-4m tall). The ground layer is very sparse with a thick layer of leaf litter. Occurs on colluvial plains associated with sandstone hills. Not a Wetland. (BVG1M: 7b).

**Short description:** Tall semi-deciduous notophyll and/or microphyll vine thicket on colluvial plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 32b-3

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.7: This RE has moved to 3.10.5c. Mainly in the Laura Basin.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.3.8

**Description:** *Corymbia tessellaris* (Moreton Bay ash) woodland to open forest, usually with *C. clarksoniana* (Clarkson's bloodwood) codominant. In areas around Princess Charlotte Bay *Eucalyptus acroleuca* (Lakefield coolibah) may be present. Occurs on coastal alluvial plains and piedmont fans, most extensively east of McIlwraith Range. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

3.3.8a: *Corymbia tessellaris* (Moreton Bay ash) woodland to open forest, usually with *C. clarksoniana* (Clarkson's bloodwood) codominant. *Acacia crassicaarpa* (spoon tree), *Lophostemon suaveolens* (swamp mahogany) and *Melaleuca viridiflora* (broad-leaved teatree) may be present as subdominant trees. A sparse to mid-dense sub-canopy often contains *Parinari nonda* (nonda plum), *A. crassicaarpa*, *C. tessellaris*, *Grevillea glauca* (clothes-peg *Grevillea*) and *M. viridiflora*. The sparse to mid-dense mixed shrubland often includes *Alphitonia pomaderroides* (soap-bush), *Antidesma ghaesembilla* (black currant), *Canarium australianum* (scrub turpentine), *Ficus opposita* (sand-paper fig), *Coelospermum decipiens* and *Corymbia clarksoniana*. Occurs on coastal alluvial plains and piedmont fans, most extensively east of McIlwraith Range. Not a Wetland. (BVG1M: 9e).

3.3.8b: *Corymbia tessellaris* (Moreton Bay ash) woodland. *C. clarksoniana* (Clarkson's bloodwood) is usually present, and may dominant the canopy in some situations. *C. papuana* may be present in the canopy. *Eucalyptus acroleuca* (Lakefield coolibah) and *E. leptophleba* (Molloy red box) are occasionally present particularly in wetter micro sites. A very sparse to sparse sub-canopy tree layer (3-10m tall) is present, with *Planchonia careya* (cocky apple), *Melaleuca nervosa* (woodland paperbark), *Erythrophleum chlorostachys* (Cooktown ironwood), *Ficus opposita* (sandpaper fig) and *C. clarksoniana* the most frequent species. At some sites *M. viridiflora* dominates a conspicuous sub-canopy layer. The shrub layer (0.5-3m tall) varies from very sparse to mid-dense, with *Antidesma ghaesembilla*, *Flueggea virosa* subsp. *melanthesoides* and *C. clarksoniana* the most frequent species. The ground layer is mid-dense to dense, with *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass), *Themeda arguens*, *T. triandra* (kangaroo grass), *Sarga plumosum* (plume sorghum) and *Mnesithea rottboellioides* (northern canegrass) frequent dominant species. Associated with levees. Not a Wetland. (BVG1M: 16b).

**Short description:** *Corymbia tessellaris*, *C. clarksoniana* woodland to open forest on coastal alluvial plains

**Supplementary descriptions:**

**Subregions:** 6, 1, (4), (2), (5), (9), (7), (7.9)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Biniirr NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Endeavour River NP, Oyala Thumotang NP (CYPAL), Endeavour River RR, Muundhi (Jack River) NP (CYPAL), Rinyirru (Lakefield) RR, Melsonby (Gaarraay) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.8: Potential habitat for NCA listed species: *Coix gasteenii*.  
3.3.8b: *Eucalyptus acroleuca* is an endemic species confined to the Laura Lowlands.

**Comments:** 3.3.8: In some areas *Corymbia papuana* can occur in place of *C. tessellaris*. Most extensively east of McIlwraith Range.  
3.3.8a: In some areas *Corymbia papuana* can occur in place of *C. tessellaris*. Most extensively east of McIlwraith Range.  
3.3.8b: Lakefield area.

**Estimated extent:**<sup>1</sup> Pre-clearing 33000 ha; Remnant 2021 32000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.3.9

**Description:** *Lophostemon suaveolens* (swamp mahogany) woodland to sometimes open forest +/- *Melaleuca* spp. (paperbarks). *Xanthostemon crenulatus* (penda) sometimes occurs as a codominant. Lower tree layers and shrub layers are very sparse to mid-dense and include canopy species +/- *Banksia dentata* (tropical Banksia) +/- *Acacia* spp. (wattles). Occurs on streamlines, swamps and alluvial terraces. Riverine. (BVG1M: 22b).

Vegetation communities in this regional ecosystem include:

3.3.9a: *Lophostemon suaveolens* (swamp mahogany) woodland to sometimes open forest +/- *Melaleuca viridiflora* (broad-leaved tea-tree) +/- *Parinari nonda* (Nonda plum). Where they occur *Syzygium angophoroides* (swamp satinash) and *Melaleuca stenostachya* (fibre-barked tea-tree) can be co-dominant. Lower tree layers and shrub layers are very sparse to mid-dense and include canopy species +/- *Banksia dentata* (tropical Banksia) +/- *Acacia* spp. (wattles). The ground layer is sparse to dense and can include *Aristida* spp., *Panicum* spp. and *Heteropogon triticeus* (giant spear-grass) as well as fern species and a range of sedges and hydrophilic forbs. Occurs on streamlines, swamps and alluvial terraces. Riverine. (BVG1M: 22b).

3.3.9b: *Xanthostemon crenulatus* (penda), *Lophostemon suaveolens* (swamp mahogany), *Asteromyrtus brassii* woodland to open forest +/- *Dillenia alata* (red beech) +/- *Melaleuca saligna* (paperbark). The low sparse sub-canopy contains canopy species +/- *Melicope elleryana* (pink Evodia) +/- *Banksia dentata* (tropical Banksia) +/- *Acacia* spp. (wattles). A very sparse to sparse shrub layer contains juvenile canopy species and *Melastoma malabathricum* subsp. *Malabathricum*. The ground layer is sparse and can include *Gahnia sieberiana*, *Nepenthes mirabilis* (pitcher plant) and a range of sedge and fern species. The ground layer often includes sedge species, ferns and hydrophilic forbs. Occurs in broad drainage depressions. Palustrine. (BVG1M: 22b).

**Short description:** *Lophostemon suaveolens* woodlands on creeklines and swamps

### Supplementary descriptions:

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

**Protected areas:** Oyala Thumotang NP (CYPAL), Apudthama NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Oikola NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Alwal NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Riverine

**Special values:** 3.3.9: Potential habitat for NCA listed species: *Combretum trifoliatum*, *Dendrobium johannis*, *Eleocharis retroflexa*, *Hoya macgillivrayi*, *Lepturus geminatus*.

**Comments:** 3.3.9: Occurs throughout the bioregion but more common in northern areas.  
3.3.9a: Usually occurs in seepage areas. Occurs throughout the bioregion but more common in northern areas.  
3.3.9b: This community often occurs in the top of shallow drainage systems off plateaus and often grades into the denser 3.3.9a further down the gradient as the depression become wetter and more swampy in seepage areas. This description replaces another community originally mapped as 3.3.5b, which is now part of 3.3.6. Mainly found on headwaters of streams flowing off the Kimba Plateau, but can occur elsewhere in the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 49000 ha; Remnant 2021 49000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.10

**Description:** *Melaleuca fluviatilis* (silver-crowned paperbark) or *M. argentea* (silver-crowned paperbark) woodland to closed forest, usually with a variety of other species. Along minor streamlines *M. saligna* or *M. dealbata* can be dominant. Fringes watercourses. Riverine. (BVG1M: 22c).

Vegetation communities in this regional ecosystem include:

3.3.10a: *Melaleuca fluviatilis* (silver-crowned paperbark) and/or *Melaleuca argentea* (silver-crowned paperbark) and less frequently *M. leucadendra* (weeping paperbark) woodland to open forest +/- *Eucalyptus tereticornis* (blue gum) or *E. camaldulensis* (river red gum) +/- *Syzygium forte* (flaky-barked satinash) +/- *Acacia auriculiformis* (ear pod wattle). The sub canopy often contains *Lophostemon grandiflorus*, *Ficus racemosa* (cluster fig) +/- rainforest species. The sparse shrub layer can include *Acacia* spp. (wattles) and rainforest species. The ground layer is generally very sparse and regularly swept clear by floods. Fringes major streams and creeks. Riverine. (BVG1M: 22c).

3.3.10b: *Melaleuca saligna* (paperbark) open forest to woodland +/- *Dillenia alata* (red beech) +/- *Leptospermum madidum* +/- *M. viridiflora* (broad-leaved teatree) +/- *Syzygium forte* (white apple). A mid-dense sub-canopy is usually present and can include *Buchanania arborescens* (native mango), *Livistona* spp. and a range of rainforest species. A very sparse shrub layer can contain a range of species including *Alyxia spicata* (chain fruit) and *Mallotus polyadenos* (kamala). The ground layer is generally very sparse and regularly swept clear by floods. Fringes minor streams and creeks. Riverine. (BVG1M: 22c).

3.3.10c: *Melaleuca saligna*, *Corymbia stockeri* (gum-topped bloodwood), *Acacia crassicarpa* (spoon tree), *Eucalyptus platyphylla* (poplar gum) open forest +/- *E. brassiana* (Cape York redgum). The sub-canopy is dominated by *M. saligna* +/- *Dillenia alata* (red beech) and *Deplanchea tetraphylla*. Occurs along swampy drainage lines. Riverine. (BVG1M: 22c).

3.3.10d: *Melaleuca dealbata* (silver-leaved paperbark), *Acacia crassicarpa* (spoon tree), *Acmena hemilampra*, *Lophostemon suaveolens* (swamp mahogany), *Deplanchea tetraphylla* and *Syzygium* spp. open forest. Prominent sub-canopy species are *Carallia brachiata* (corky bark), *Dillenia alata* (red beech) and *Gmelina dalrympleana* (white beech). The shrub layer is composed of a large mix of vine forest species. Occurs on drainage lines. Riverine. (BVG1M: 22c).

**Short description:** *Melaleuca fluviatilis* and/or *Melaleuca argentea* woodland or *M. saligna* or *M. dealbata* woodland fringing watercourses

### Supplementary descriptions:

**Subregions:** 1, 8, 6, 7, (5), (2), (4), (3), (9), (2.4), (9.3), (7.9)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Oyala Thumotang NP (CYPAL), Olkola NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Cape Melville NP (CYPAL), Lama Lama NP (CYPAL), Alwal NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Biniirr NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Ngalba-bulal NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Juunju Daarrba Nhirrpan NP (CYPAL), KULLA (McIlwraith Range) RR, Olkola (Kurrumbila) RR 2, Annan River (Yuku Baja-Muliku) RR, Oyala Thumotang RR

**Extent in reserves:** High

**Wetland:** Riverine

**Special values:** 3.3.10: Important corridors for wildlife. The near threatened grass species *Lepturus xerophilus* has been recorded in this ecosystem.

3.3.10a: In the Torres Strait this community is habitat for a disjunct northern occurrence of the palm *Corypha utan*.

**Comments:** 3.3.10: Vegetation community 3.3.10b is limited in area to minor streamlines. Common along most major rivers and streams. High usage by cattle and frequently weedy. Northward spread of *Cryptostegia grandiflora* a major threat.

3.3.10a: Common along most major rivers and streams. Weedy forbs such as *Passiflora foetida*\* (stinking passion flower), *Mesosphaerum suaveolens* (hyptis)\*, *Achyranthes aspera*\* (chaff flower), *Euphorbia hirta*\* (asthma plant), *Urena lobata*\* (pink burr) and *Crotalaria goreensis*\* (gambia pea) are often common in the ground layer. *Cryptostegia grandiflora*\* (rubber vine) is commonly found.

3.3.10b: A less common variant of 3.3.10. Along some streams and creeks.

3.3.10c: *C. stockeri* is likely to be subsp. *peninsularis*. Restricted to Horn Is., Torres Strait.

3.3.10d: Restricted to Badu Island, Torres Strait.

**Estimated extent:**<sup>1</sup> Pre-clearing 159000 ha; Remnant 2021 159000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.11

<b>Description:</b>	Melaleuca leucadendra (weeping paperbark) and Corymbia tessellaris (Moreton Bay ash) woodland +/- Blepharocarya involucrigera (Rose Butternut) +/- Buchanania arborescens (native mango). A sparse sub-canopy usually contains canopy species, Lophostemon spp. and Leptospermum madidum. The grassy ground layer is generally sparse to mid-dense and includes Imperata cylindrica (blady grass), Mnesithea rottboellioides and Panicum trichoides . Occurs on alluvium derived from metamorphics. Riverine. (BVG1M: 22c).
<b>Short description:</b>	Melaleuca leucadendra +/- Corymbia tessellaris woodland on alluvium derived from metamorphic rocks
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 50
<b>Subregions:</b>	5, 2, 1, (6), (7.9), (9.3)
<b>Protected areas:</b>	Rinyirru (Lakefield) NP (CYPAL), Kalkajaka NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Palmer Goldfield RR, Black Mountain NP
<b>Extent in reserves:</b>	Low
<b>Wetland:</b>	Riverine
<b>Special values:</b>	3.3.11: Important wildlife corridors.
<b>Comments:</b>	3.3.11: Only small areas in bioregion, more extensive in Einasleigh Uplands bioregion. Threatened in places by alluvial gold mining. Heavily infested with weeds including Cryptostegia grandiflora, Cynodon dactylon var. dactylon* (green couch) and Mesosphaerum suaveolens*.
<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>	Endangered
<b>Biodiversity status notes:</b>	Threatening processes other than clearing.

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### Regional ecosystem 3.3.12

<b>Description:</b>	[RE not in use] <sup>2</sup> : This regional ecosystem is now mapped within 3.3.50. Melaleuca quinquenervia dominates the sparse to mid-dense canopy (18-23m tall). Xanthostemon crenulatus is occasionally a subdominant tree. A very sparse to sparse sub-canopy tree layer (2-10m tall) is dominated by Pandanus spp. And M. quinquenervia. A sparse shrub layer (1-3m tall) is usually dominated by M. quinquenervia, with Melastoma malabathricum subsp. Malabathricum the dominant shrub at one site. The ground layer is very sparse to dense, with sedges dominating the wettest areas. Associated with coastal swamps. Palustrine. (BVG1M: 22a).
<b>Short description:</b>	Melaleuca quinquenervia open forest associated with scattered coastal swamps
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 51; Stanton, Fell & Gooding (2008), A7d.
<b>Subregions:</b>	
<b>Protected areas:</b>	
<b>Extent in reserves:</b>	
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	
<b>Comments:</b>	3.3.12: This is now a vegetation community within 3.3.50. Scattered throughout the bioregion.
<b>Estimated extent:</b> <sup>1</sup>	
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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### Regional ecosystem 3.3.13

**Description:** *Melaleuca saligna* (paperbark) low woodland to woodland. A sparse subcanopy of *M. viridiflora*, *M. acacioides* and canopy species sometimes occurs. A very sparse shrub layer of canopy species +/- *Hakea pedunculata* usually occurs. The often bare ground contains scattered sedge and grass species. Occurs on edges of salt pans. Contains Palustrine. (BVG1M: 21b).

**Short description:** *Melaleuca saligna* low woodland on edges of salt pans

**Supplementary descriptions:** Neldner and Clarkson (in prep), 52; Stanton, Fell & Gooding (2008), A7bs.

**Subregions:** 6, 5, 3, (9)

**Protected areas:** Lama Lama NP (CYPAL), Cape Melville NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Contains Palustrine

**Special values:**

**Comments:** 3.3.13: Small patches of this Regional Ecosystem occur fringing the boundary of the salt pans and woodland communities along the road to Bathurst Head. Princess Charlotte Bay area and small area on some Torres St. islands. This RE has suffered dieback along the fringing edge of saltpans, particularly in the Princess Charlotte Bay area.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Dieback occurring due to what appears to be salt increase.

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## Regional ecosystem 3.3.14

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.50c. Woodland to open woodland of *Melaleuca saligna* (paper bark) +/- *Lophostemon suaveolens* (swamp mahogany). There is a very sparse to sparse sub-canopy layer and the shrub layer is usually very sparse. In Lakefield National Park a more dense variant occurs which is dominated by *Melaleuca leucadendra*, with *Melaleuca dealbata* as a subdominant canopy species. Occurs in drainage swamps, which generally remain flooded in the wet season for many months. Palustrine. (BVG1M: 22b).

Vegetation communities in this regional ecosystem include:

3.3.14a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.50c. *Melaleuca saligna* (paper bark) usually dominates the sparse canopy (10-18m tall). *Lophostemon suaveolens* (swamp mahogany) is frequently a codominant canopy tree. *Melaleuca clarksonii* (hard-barked teatree) is sometimes present as an emergent tree (12-16m tall) in the deepest part of the swamps. *Asteromyrtus symphyocarpa* usually dominates the very sparse to sparse sub-canopy layer (4-10m tall). *Calycopeplus casuarinoides* (false casuarina) occurs on the margins of the wettest areas. The shrub layer (0.5-2.5m tall) is usually very sparse and the very sparse to sparse ground layer consists mainly of graminoids. Occurs in drainage swamps, which generally remain flooded in the wet season for many months. Palustrine. (BVG1M: 22b).

3.3.14b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.50e. Open forest to woodland of *Melaleuca leucadendra* (weeping paperbark) +/- *Lophostemon suaveolens* (swamp mahogany) occasionally present in the canopy. *M. dealbata* is a frequent sub-dominant. *Dillenia alata* (red beech) and *M. leucadendra* are frequently present in the very sparse sub-canopy tree layer. The shrub layer ranges from very sparse to mid-dense, and is composed of a variety of shrub species. The ground layer also varies from very sparse to mid-dense cover. *Barringtonia acutangula* (freshwater mangrove) are often emergent over the deeper open water and aquatic plants such as *Eleocharis* spp. (spikerush), *Nymphaea* spp. And *Nymphoides* spp. Often present. Occurs in perennial swamps scattered through Lakefield National Park. Palustrine. (BVG1M: 22b).

**Short description:** *Melaleuca saligna* +/- *M. viridiflora*, *Lophostemon suaveolens* woodland on drainage swamps

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Palustrine

**Special values:** 3.3.14: Potential habitat for NCA listed species: *Dendrobium johannis*, *Fimbristylis adjuncta*, *Sarcolobus vittatus*, *Spathoglottis plicata*.

**Comments:** 3.3.14: Found throughout bioregion.  
3.3.14a: Found throughout bioregion.  
3.3.14b: This vegetation community occurs in patches too small to be mappable. It is very similar to that of RE 3.2.4 but occurs on swamps on alluvial plains. Lakefield National Park.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.15

**Description:** Eucalyptus brassiana (Cape York redgum) woodland to low open woodland +/- Melaleuca viridiflora (broad leaved tea-tree) +/- Corymbia clarksoniana (Clarkson's bloodwood). E. brassiana and C. clarksoniana can also occur as emergent. A very sparse subcanopy and/or shrub layer can occur with canopy species +/- Banksia dentata (tropical Banksia) +/- Lophostemon suaveolens (swamp mahogany). The mixed mid-dense to dense ground cover is often dominated by Fimbristylis spp. And Cyperus spp. Occurs on alluvial plains. Not a Wetland. (BVG1M: 9e).

**Short description:** Eucalyptus brassiana +/- Melaleuca viridiflora +/- Corymbia clarksoniana woodland on alluvial plains  
**Supplementary descriptions:** Neldner and Clarkson (in prep), 57; Stanton.  
**Subregions:** 5, 6, 8, (9)  
**Protected areas:** Olkola NP (CYPAL), Cape Melville NP (CYPAL)  
**Extent in reserves:** High  
**Wetland:** Not a Wetland  
**Special values:**  
**Comments:** 3.3.15: In moister areas to the east this unit can be swampy. Bathurst Head and western slopes of the Kimba Plateau.  
**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 3.3.16

**Description:** Eucalyptus chlorophylla (silver-leaved box) woodland to low open woodland +/- Corymbia clarksoniana (Clarkson's bloodwood) +/- Erythrophloeum chlorostachys (Cooktown Ironwood). A very sparse subcanopy can contain Melaleuca viridiflora (broad leaved tea tree) and M. nervosa (fibrebark). A very sparse shrub layer often contains juvenile canopy species and a range of Acacia spp. (wattles). The sparse to dense grassy groundlayer is often dominated by Heteropogon spp. (speargrass), Themeda spp. And Sarga plumosum (sorghum). Occurs on alluvial plains. Not a Wetland. (BVG1M: 16c).

**Short description:** Eucalyptus chlorophylla +/- Corymbia clarksoniana woodland on alluvial plains  
**Supplementary descriptions:** Neldner and Clarkson (in prep), 58, 113-3, 151. Fox & Wilson (2004); w17-3c.  
**Subregions:** 6, 1, 8, 2, (5), (7), (2.4), (9), (9.3)  
**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Olkola NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Oyala Thumotang NP (CYPAL), Alwal NP (CYPAL), Lama Lama NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Ngaynggarr NP (CYPAL), Flinders Group NP (CYPAL), Olkola (Kurrumbila) RR 2, Rinyirru (Lakefield) RR  
**Extent in reserves:** High  
**Wetland:** Not a Wetland  
**Special values:**  
**Comments:** 3.3.16: RE 3.3.45 and parts of RE 3.3.36 were amalgamated into this RE. Mainly in the south-east.  
**Estimated extent:**<sup>1</sup> Pre-clearing 141000 ha; Remnant 2021 141000 ha  
**VM class:** Least concern  
**Biodiversity status:** No concern at present  
**Biodiversity status notes:**

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## Regional ecosystem 3.3.17

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.20. Woodland to open forest of *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) or *C. intermedia* (pink bloodwood). The sub-canopy is sparse to mid-dense as is the shrub layer. Occurs on alluvial plains. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

3.3.17a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.20. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy (12-20m tall). *Erythrophleum chlorostachys* (Cooktown ironwood) is a frequent subdominant tree, with *Canarium australianum* (scrub turpentine), *Eucalyptus brassiana* (Cape York red gum) and *Corymbia tessellaris* (Moreton Bay ash) sometimes present. The sub-canopy (6-11m tall) is dominated by *Melaleuca nervosa* (paperbark), with a number of other species frequently present. The sparse shrub layer (0.5-2m tall) is composed of a variety of species, with *Acacia crassicaarpa* (spoon tree), *A. leptocarpa* (a wattle) and *Planchonia careya* (cocky apple) the most frequent shrubs. The ground layer is sparse to mid-dense, with *Mnesithea rottboellioides* (northern cane grass), *Eriachne trisetata* (wanderrie grass) and *Heteropogon triticeus* (giant speargrass) the dominant grasses. Occurs on alluvial plains. Not a Wetland. (BVG1M: 9e).

3.3.17b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.20. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the mid-dense canopy. *C. intermedia* (pink bloodwood) dominated at sites where *C. clarksoniana* was absent. *C. tessellaris* (Moreton Bay ash) is a consistent subdominant of the canopy. *Acacia polystachya* (wattle) is also frequently subdominant. The very sparse to mid-dense sub-canopy tree layer is dominated by *Acacia flavescens* (powder puff wattle), *A. polystachya*, *A. crassicaarpa* (northern wattle) and *Mallotus nesophilus*. The shrub layer varies from very sparse to dense. *Antidesma ghaesembilla* (blackcurrant tree), *Flueggea virosa* subsp. *melanthesoides* (white currant) and *Planchonia careya* (cocky apple) are the most frequent dominant species. This layer may be dense in places and dominated by pioneer closed forest species. The ground layer varies from very sparse to dense. Common dominant species include *Imperata cylindrica* (blady grass), *Panicum trichoides* and *Flemingia parviflora* (flemingia). Occurs on coastal lowlands. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* and *Erythrophleum chlorostachys* woodland on alluvial plains

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.17: In the south-east of the bioregion and also on some Torres Strait Islands.  
3.3.17a: In the south-east of the bioregion.  
3.3.17b: East coast and Torres Strait islands.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.18

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.20. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse to mid-dense canopy (18-25m tall). *Corymbia dallachiana* (Dallachy's gum) or *C. papuana* (ghost gum) and *Erythrophleum chlorostachys* (Cooktown ironwood) are frequent subdominant trees. *Lophostemon suaveolens* (swamp mahogany) and *Melaleuca dealbata* (paperbark) are also sometimes present. *M. nervosa* (teatree) is a consistent sub-canopy tree but a number of other species are often present in this layer (6-18m tall). The sparse shrub layer (0.5-2m tall) is composed of a variety of species particularly *Erythrophleum chlorostachys* and *Alphitonia pomaderroides* (soapwood). The ground layer is sparse to dense and dominated by the grasses *Heteropogon triticeus* (giant speargrass), *H. contortus* (black speargrass), *Themeda triandra* (kangaroo grass) and *Panicum* spp. (native panic). Occurs on alluvial plains. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* +/- *C. dallachiana* woodland on alluvial plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 61

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.18: Normanby, Kennedy and Stewart Rivers in the south-east of the bioregion. Often heavily infested with weeds, including *Mesosphaerum suaveolens*\* and *Crotalaria goreensis*\*. However, most of the biodiversity in the ground layer is still maintained.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.19

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.20. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy (13-22m tall). *C. dallachiana* (Dallachy's gum) is usually present as a subdominant canopy tree. *Melaleuca nervosa* (teatree) occasionally occurs in the canopy but is more common as a sub-canopy tree (5-12m tall). Other common sub-canopy trees are *Piliostigma malabaricum* (bauhinia), *Lophostemon suaveolens* (swamp mahogany) and *Planchonia careya* (cocky apple). *Antidesma ghaesembilla* (black currant) and *Corymbia clarksoniana* with *Azanza thespesioides* consistently form a sparse shrub layer (0.3-3m tall). The ground layer is sparse and dominated by *Ischaemum* spp., *Eragrostis* spp. (love grass), *Arundinella setosa* (reed grass) and *Fimbristylis* spp. Occurs on floodplains. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* +/- *C. dallachiana* woodland on floodplains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 62

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.19: Characterised by the frequent occurrence of *Piliostigma malabaricum* in the sub canopy. West flowing rivers in the central bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.20

**Description:** *Corymbia clarksoniana* or *C. novoguineensis* woodland to open forest on alluvial plains. Occurs on a variety of alluvial plains derived from a range of geological substrates. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

3.3.20a: *Corymbia clarksoniana* woodland to open forest +/- *Erythrophleum chlorostachys*. The very sparse to sparse sub canopy often contains *Melaleuca viridiflora* and/or *M. nervosa* +/- *Planchonia careya* +/- *E. chlorostachys*. A sparse to mid-dense mixed shrub layer often contains juvenile canopy species +/- *Antidesma ghaesembilla* +/- *Alphitonia pomaderroides*. The sparse to dense grassy ground layer is often dominated by *Heteropogon triticeus*, *Panicum* spp. *Sarga plumosum* and *Imperata cylindrica*. Occurs on a variety of alluvial plains derived from a range of geological substrates. Not a Wetland. (BVG1M: 9e).

3.3.20b: *Corymbia novoguineensis* woodland to open forest +/- *Lophostemon suaveolens*. The very sparse to sparse subcanopy can contain *Melaleuca viridiflora*, *Parinari nonda* and *Livistona muelleri*. The very sparse shrub layer contains juvenile *C. novoguineensis* +/- a range of heath species. The mixed sparse grassy groundlayer often include *Lomandra* spp., *Imperata cylindrica* or *Mnesithea rottboellioides*. Occurs on floodplains. Not a Wetland. (BVG1M: 9e).

3.3.20c: [RE not in use]<sup>2</sup>: This vegetation community is now part of 3.3.20a. *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Corymbia nesophila* (Melville Island bloodwood) +/- *Corymbia tessellaris* (Moreton Bay ash) +/- *Corymbia stockeri* subsp. *peninsularis* +/- *Welchiodendron longivalve* (yellow box-penda) woodland and open forest (18-27m). The generally open shrub layer often contains *W. longivalve* +/- *Planchonia careya* (cocky apple), *Melaleuca viridiflora* (broad-leaved paperbark) and *Acacia leptocarpa*, with the endemic *Cycas badensis* also occurring in a lower shrub layer. Occurs on alluvial outwash plains. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* or *C. novoguineensis* woodland on alluvial plains

**Supplementary descriptions:**

**Subregions:** 8, 7, 6, 1, 2, (4), (5), (9), (3), (2.4), (7.9)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Oyala Thumotang NP (CYPAL), Cape Melville NP (CYPAL), Muundhi (Jack River) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Oikola NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Lama Lama NP (CYPAL), Apudthama NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Batavia NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Ngalba-bulal NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Endeavour River NP, Biniirr NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Melsonby (Gaarraay) NP (CYPAL), Endeavour River RR, Kalkajaka NP (CYPAL), Rinyirru (Lakefield) RR, Daarrba NP (CYPAL), Keatings Lagoon CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.20: Potential habitat for NCA listed species: *Astonia australiensis*, *Dendrobium johannis*, *Globba marantina*, *Stylidium longissimum*.

**Comments:** 3.3.20: RE's 3.3.17, 3.3.18, 3.3.19, 3.3.21, 3.3.22, 3.3.23, 3.3.40, 3.3.43x1 and vegetation community 3.5.22c and were all amalgamated into this RE. The vegetation communities in this RE are generally not mappable on the CYP mainland, however 3.3.20b is not known south of Coen. Throughout the central and south-east bioregion and also in the Torres Strait islands.

3.3.20a: Widespread throughout the bioregion.

3.3.20b: *Eucalyptus platyphylla* dominates in some low-lying areas but such areas are very limited in extent. Scattered though the northern and central bioregion. This vegetation community is not known south of Coen.

3.3.20c: Torres Strait.

**Estimated extent:**<sup>1</sup> Pre-clearing 449000 ha; Remnant 2021 446000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.3.21

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.20. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy (8-18m tall). *Melaleuca viridiflora* (broad-leaved teatree) and *Syzygium eucalyptoides* subsp. *eucalyptoides* are subdominant trees. *M. viridiflora* occurs at high stem densities, particularly in the sparse sub-canopy, (6-7m tall) where it is usually dominant. *Corymbia polycarpa* (long-fruited bloodwood) was recorded at one site. *Banksia dentata* (banksia), *Asteromyrtus symphyocarpa* (lineament tree) and *Neofabricia mjoebergii* (yellow teatree) are characteristic species of the sparse shrub layer (0.2-6m tall). The ground layer is mid-dense and dominated by *Schoenus sparteus*, *Fimbristylis* spp., *Scleria* spp., *Eriocaulon* spp. and *Cartonema parviflorum*. Lower slopes of sandridges and in drainage depressions. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* +/- *Syzygium eucalyptoides* woodland on lower slopes of sand ridges and in drainage depressions

**Supplementary descriptions:** Neldner and Clarkson (in prep), 64

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.21: Dissected Holroyd plain, south of Aurukun across to Coen.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.22

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.20. Woodland to low open forest of *Corymbia clarksoniana* (Clarkson's bloodwood) or *C. intermedia* (pink bloodwood) or *C. novoguineensis*. A sparse sub-canopy is often present as is a sparse shrub layer. Widely distributed on alluvial plains and in drainage depressions. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

3.3.22a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.20. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy (8-25m tall). In the northern areas, this species is replaced by another bloodwood, *C. novoguineensis*. *Lophostemon suaveolens* (swamp mahogany), *Parinari nonda* (nonda) and less frequently *Erythrophleum chlorostachys* (Cooktown ironwood) are subdominant trees. The sparse sub-canopy (4-18m tall) is most frequently dominated by *Melaleuca viridiflora* (broad-leaved teatree). *Livistona muelleri* (dwarf fan palm) and *Alphitonia pomaderroides* (soapwood) are also common components of this layer. *Antidesma ghaesembilla* (black currant) and *Flueggea virosa* subsp. *melanthesoides* (white currant) are characteristic species of the sparse shrub layer (0.5-2m tall). The ground layer is sparse to dense and dominated by *Fimbristylis* spp., *Heteropogon triticeus* (giant speargrass), *Aristida* sp. (three-awned speargrass) and *Ischaemum* spp. Widely distributed on alluvial and erosional plains and in drainage depressions. Not a Wetland. (BVG1M: 9e).

3.3.22b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.20. *Corymbia intermedia* (pink bloodwood) is the most frequent dominant in the sparse to mid-dense canopy. *C. novoguineensis* (a bloodwood) or *C. clarksoniana* (Clarkson's bloodwood) may replace *C. intermedia* in some areas, although the positive identification of these closely related species is often difficult. *Acacia crassicaarpa* (spoon tree) is a fairly consistent subdominant canopy species, and a number of other species may be present in this layer. The sparse sub-canopy layer is dominated by a range of species with *Acacia crassicaarpa*, *Dodonaea polyandra* (hop bush) and *Neofabricia myrtifolia* (yellow teatree) the most frequent dominants. The generally mid-dense to dense shrub layer is dominated by a number of species, with *Exocarpos latifolius* (broad-leaved cherry), *Dodonaea polyandra*, *Styphelia ruscifolia*, *Neoroepera banksii* and *Lomandra banksii* the most frequent. The ground layer is very sparse to sparse, with *Arthrostylis aphylla*, *Lomandra* spp., *Dianella pavopennacea* and *Eriachne pallescens* the dominant species. Occurs in wet coastal areas usually on the inland side of dunefields. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* or *C. novoguineensis* woodland on alluvial plains

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.22: Potential habitat for NCA listed species: *Gardenia psidioides*, *Habenaria euryloba*, *Spathoglottis plicata*.

**Comments:** 3.3.22: Throughout the bioregion.  
3.3.22a: Holroyd Plain, Weipa Plateau, Olive-Pascoe Lowlands and Torres Strait.  
3.3.22b: Soils are alluvial sediments but are generally very sandy. South east of the bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.23

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.20. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy (13-25m tall). *Erythrophleum chlorostachys* (Cooktown ironwood) is a frequent subdominant tree. *Eucalyptus tetrodonta* (Darwin stringybark) is present but at lower stem densities. The sparse sub-canopy (6-15m tall) is dominated by *Erythrophleum chlorostachys* and *Melaleuca nervosa* (a paperbark). A number of other species are frequently present. The sparse shrub layer (0.5-3m tall) is composed of a variety of species which includes *Alphitonia pomaderroides* (soapwood), *Erythrophleum chlorostachys* and *Melaleuca nervosa*. The ground layer is mid-dense to dense. *Schizachyrium fragile* (fire grass), *Sarga plumosum* (plume sorghum), *Heteropogon triticeus* (giant speargrass), *Themeda arguens* and *Panicum* spp. (native panic) are the dominant grasses. Occurs on levees associated with streams. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* or *C. polycarpa* woodland on stream levees

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.23: South-west of bioregion and in Lakefield NP. Extends into adjacent Gulf Plains bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.24

**Description:** *Eucalyptus leptophleba* woodland to (sometimes) open forest +/- *Erythrophleum chlorostachys* +/- *Corymbia tessellaris*. A sparse to mid-dense subcanopy often occurs with canopy species with *Dendrolobium umbellatum* sometimes dominant. A sparse to mid-dense shrub layer can contain a mix of low shrub species along with juvenile canopy species. The sparse to dense grassy ground layer is often dominated by a range of species including *Heteropogon* spp., *Eragrostis* spp., *Themeda triandra* and *Sarga plumosum*. Occurs on riverine alluvia. Not a Wetland. (BVG1M: 16b).

**Short description:** *Eucalyptus leptophleba* +/- *Erythrophleum chlorostachys* woodland on riverine levees and alluvial plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 78.Fox & Wilson (2004); w5-3c.

**Subregions:** 1, 7, 2, 6, (4), (5), (8), (9.3), (2.4), (2.6), (7.9)

**Protected areas:** Oyala Thumotang NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Olkola NP (CYPAL), Cape Melville NP (CYPAL), Alwal NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Batavia NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Kutini-Payamu (Iron Range) NP (CYPAL), Ngalba-bulal NP (CYPAL), Endeavour River NP, Juunju Daarrba Nhirrpan NP (CYPAL), Kalkajaka NP (CYPAL), Endeavour River RR, Black Mountain NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.24: REs 3.3.25 (a,b,c) and 3.3.36b were amalgamated into this RE. Laura area and in the central Peninsula. The weedy forb *Mesosphaerum suaveolens*\* (hyptis) occurs at high densities in places.

**Estimated extent:**<sup>1</sup> Pre-clearing 107000 ha; Remnant 2021 106000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.25

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.24. Woodland of *Eucalyptus leptophleba* (Molloy red box) +/- *Corymbia tessellaris* (Moreton Bay ash) +/- *E. platyphylla* (poplar gum). The sub-canopy and shrub layer are generally sparse though the shrub layer can be mid-dense. Associated with riverine levees and floodplains. Not a Wetland. (BVG1M: 16b).

Vegetation communities in this regional ecosystem include:

3.3.25a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.24. *Eucalyptus leptophleba* (Molloy red box) dominates the sparse canopy (18-25m tall). *Corymbia tessellaris* (Moreton Bay ash) is often subdominant. Scattered *Corymbia clarksoniana* (Clarkson's bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) may also be present in the canopy. A very sparse to sparse sub-canopy layer (6-15m tall) is sometimes present and is composed of a variety of species. The shrub layer (0.5-2.5m tall) varies from sparse to mid-dense and is composed of a variable mixture of species. *Heteropogon contortus* (black speargrass) is the most commonly encountered grass. It can often dominate the very sparse to dense variable ground layer. Associated with riverine levees and floodplains. Not a Wetland. (BVG1M: 16b).

3.3.25b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.24. *Eucalyptus leptophleba* (Molloy red box) usually dominates the sparse canopy, with *E. platyphylla* (poplar gum) a consistent subdominant canopy tree. Scattered *Corymbia tessellaris* (Moreton Bay ash) are also frequently present in the canopy. The sub-canopy tree layer is very sparse, and composed of *Melaleuca* spp. and *Eucalyptus* spp. The shrub layer is also very sparse, with *M. nervosa*, *Corymbia clarksoniana* (Clarkson's bloodwood), *E. leptophleba* and *Planchonia careya* (cocky apple) frequently occurring, and *Antidesma ghaesembilla* dominating this layer at one site. The ground layer is mid-dense with *Heteropogon contortus* (black spear grass), *H. triticeus* (giant spear grass), *Mnesithea rottboellioides* (northern cane grass) and *Themeda triandra* (kangaroo grass) the most frequent native grasses. Occurs on floodplains. Not a Wetland. (BVG1M: 9b).

3.3.25c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.24. *Eucalyptus leptophleba* (Molloy red box) dominates the sparse canopy. *Corymbia clarksoniana* (Clarkson's bloodwood), *C. tessellaris* (Moreton Bay ash) and *E. platyphylla* (poplar gum) are frequently present as scattered trees. Other *Eucalyptus* spp. may also be occasionally present. The sub-canopy and shrub layers are very sparse. The ground layer is mid-dense and dominated by the grasses, *Heteropogon contortus* (black spear grass) and *Themeda triandra* (kangaroo grass). Frequent native forbs are *Crotalaria montana*, *C. calycina* and *Glycine* spp. Occurs on sandstone colluvium. Not a Wetland. (BVG1M: 11c).

**Short description:** *Eucalyptus leptophleba* +/- *Corymbia tessellaris* +/- *E. platyphylla* woodland on riverine levees and floodplains

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.25: Potential habitat for NCA listed species: *Homoranthus tropicus*.

**Comments:** 3.3.25: Weedy forbs such as *Sida* spp., *Mesosphaerum suaveolens* (hyptis) and *Corchorus* sp. (jute) occur and may form dense stands at some sites. Widespread throughout the centre and south-east of the bioregion.  
3.3.25a: Widespread throughout central and south-east Peninsula.  
3.3.25b: South-east of bioregion. Alien forbs such as *Crotalaria goreensis*\* (gambia pea) and *Stachytarpheta jamaicensis*\* (snake weed), and grasses such as *Themeda quadrivalvis*\* (grader grass) occur at high densities in many areas.  
3.3.25c: Hopevale. *Crotalaria goreensis*\* (gambia pea) and *Mesosphaerum suaveolens*\* (hyptis) and *Themeda quadrivalvis*\* (grader grass) are often abundant .

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.3.26

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.27. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse canopy (16-25m tall). *Eucalyptus tetradonta* (Darwin stringybark) is usually present as a codominant canopy tree. Scattered *Erythrophleum chlorostachys* (Cooktown ironwood) were present at half of the sites visited. The very sparse to sparse sub-canopy tree layer (4-14m tall) is dominated by *Corymbia nesophila*, *Acacia flavescens* (powderpuff wattle), *Erythrophleum chlorostachys* and *Grevillea glauca* (bushman's clothes peg). The shrub layer (0.5-3m tall) is very sparse to mid-dense. *A. flavescens*, *Corymbia nesophila*, *Eucalyptus tetradonta* and *Xanthorrhoea johnsonii* (grass tree) occur at high densities in this layer. The ground layer is sparse to mid-dense. *Heteropogon triticeus* (giant speargrass), *Aristida* spp. (three-awned speargrass) and *Digitaria* spp. are the primary species. Mainly occurs on footslopes and alluvial fans of sandstone ranges. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* +/- *Eucalyptus tetradonta* woodland on sandstone footslopes and fans

**Supplementary descriptions:** Neldner and Clarkson (in prep), 82a

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.26: This RE was found to occur on a number of different land zones and so has been allocated to other REs depending on land zone. In the south-east.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.27

**Description:** *Corymbia nesophila* woodland +/- *Erythrophleum chlorostachys* +/- *Eucalyptus tetrodonta*. A very sparse to sparse subcanopy often contains canopy species +/- *Acacia flavescens* +/- *Grevillea glauca* +/- *Livistona muelleri*. The absent to mid-dense shrub layer is usually dominated by juvenile canopy species +/- *A. crassicarpa* +/- *Xanthorrhoea johnsonii*. Dominants in the sparse to mid-dense groundlayer can include *Heteropogon triticeus*, *Lomandra* spp., *Eriachne pallescens* and *Mnesithea rottboelliioides*. Mainly occurs on alluvial plains and moist alluvial fans of sandstone ranges. Not a Wetland. (BVG1M: 14c).

Vegetation communities in this regional ecosystem include:

3.3.27a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.27. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse canopy. *Eucalyptus crebra* (narrow-leaved ironbark) may be present as a subdominant canopy tree. A number of other *Eucalyptus* spp. or *Corymbia* spp. may form minor components of the canopy. *E. brassiana* (Cape York red gum) may occur as a codominant canopy species at some sites. The very sparse sub-canopy tree layer is dominated by *C. nesophila*, *Acacia flavescens* (powder puff wattle), *Lophostemon suaveolens* (swamp mahogany) and *Grevillea glauca* (bushman's clothes peg). The shrub layer is very sparse. *Acacia flavescens*, *Erythrophleum chlorostachys* (Cooktown ironwood), *C. nesophila* and *Persoonia falcata* (geebung) are the most frequently encountered species. The ground layer varies from sparse to mid-dense. The dominant grasses are *Themeda triandra* (kangaroo grass), *Eriachne pallescens* (wanderrie grass), *Aristida* sp. (three-awned speargrass) and *Heteropogon triticeus* (giant speargrass). Common forbs include *Spermacoce* spp., *Cyanthillium cinereum* and *Flemingia parviflora* (flamingia). Mainly occurs on floodplains. Not a Wetland. (BVG1M: 14c).

3.3.27b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.27. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse canopy (12-28m tall). *Eucalyptus brassiana* (Cape York red gum) and *E. tetrodonta* (Darwin stringybark) may often form minor components of the canopy. *C. clarksoniana* (Clarkson's bloodwood) was codominant at one site examined. The very sparse to sparse sub-canopy tree layer (4-18m tall) is dominated by *Livistona muelleri* (dwarf fan palm), *Melaleuca viridiflora* (broad-leaved teatree), *Acacia flavescens* (powderpuff wattle), *C. clarksoniana* and *Grevillea glauca* (bushman's clothes peg). *Acacia flavescens*, *C. nesophila* and *M. viridiflora* the most frequent species in the very sparse shrub layer (0.3-2m tall). The ground layer is sparse to mid-dense. A variety of grasses, including *Eriachne pallescens* (wanderrie grass), *Heteropogon triticeus* (giant speargrass), *Imperata cylindrica* (blady grass) and *Themeda triandra* (kangaroo grass) dominate this layer. Mainly occurs on moist alluvial fans of sandstone ranges and alluvial plains. Not a Wetland. (BVG1M: 14c).

3.3.27c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.31a. Woodland dominated by *Eucalyptus tetrodonta* (Darwin stringybark) and/or *Corymbia nesophila* (Melville Island bloodwood) +/- *E. leptophleba* (Molloy red box) +/- *E. cullenii* (Cullen's ironbark) +/- *Brachychiton diversifolius*. Scattered specimens of *C. clarksoniana* (Clarkson's bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) are usually present. A very sparse to open lower tree layer often contains *Acacia leptocarpa* (wattle), *Grevillea glauca* (clothespeg Grevillea), *G. parallela* (silver oak), *Melaleuca viridiflora* (broad-leaved teatree) and *Parinari nonda* (nonda plum). The absent to sparse shrublayer may contain very scattered tree layer species. The sparse to dense grassy ground layer is dominated by *Schizachyrium fragile* (firegrass) +/- *Alloterospis semialata* (cockatoo grass) +/- *Eriachne* spp. Occurs on alluvial plains. Occurs on alluvial plains. Not a Wetland. (BVG1M: 14b).

**Short description:** *Corymbia nesophila* +/- *Erythrophleum chlorostachys* +/- *Eucalyptus tetrodonta* woodland on alluvial plains

**Supplementary descriptions:**

**Subregions:** 2, 3, (5), (7.9)

**Protected areas:** Cape Melville NP (CYPAL), Biniirr NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 3.3.27: Potential habitat for NCA listed species: *Habenaria vatia*.

**Comments:** 3.3.27: RE 3.3.26 was amalgamated into this RE. Occurs throughout the bioregion.  
3.3.27a: In the south-east around Cooktown and inner Torres Strait islands.  
3.3.27b: In the south-east south of Mt. Webb National Park.  
3.3.27c: Occurs throughout the bioregion on alluvial plains.

**Estimated extent:**<sup>1</sup> Pre-clearing 9000 ha; Remnant 2021 8000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

### Regional ecosystem 3.3.28

**Description:** Eucalyptus platyphylla and Corymbia clarksoniana woodland +/- Lophostemon suaveolens +/- Erythrophleum chlorostachys +/- Eucalyptus leptophleba. A very sparse subcanopy and/or shrub layer can contain canopy species with Melaleuca viridiflora and Planchonia careya often occurring in the shrub layer. The mid-dense to dense grassy groundlayer is often dominated by Heteropogon contortus, Eragrostis spp. and Panicum spp. Occurs on alluvial plains. Not a Wetland. (BVG1M: 9b).

**Short description:** Eucalyptus platyphylla and Corymbia clarksoniana woodland on alluvial plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 87; Stanton, Fell & Gooding (2008), A5n, A5t, A5u.

**Subregions:** 2, 7, 6, (5), (3), (9.3), (4), (1), (7.9)

**Protected areas:** Cape Melville NP (CYPAL), Oyala Thumotang NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Juunju Daarrba Nhirrpan NP (CYPAL), Endeavour River NP, Keatings Lagoon CP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.28: Two variants of this community on Murulag Island in the Torres Strait Islands also have Livisitona muelleri in the subcanopy or Corymbia nesophila and Eucalyptus tetrodonta as canopy sub-dominants. Mostly in south-east of bioregion. Also on Weipa Plateau and some Torres Strait islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 14000 ha; Remnant 2021 13000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

### Regional ecosystem 3.3.29

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 2.3.72. Corymbia polycarpa (long-fruited bloodwood) dominates the sparse canopy (13-20m tall). C. curtipes (a bloodwood), C. confertiflora (cabbage gum), Canarium australicum (scrub turpentine) and Erythrophleum chlorostachys (Cooktown ironwood) may be present as subdominant canopy trees. The sub-canopy tree layer (4-12m) varies from very sparse to sparse. Terminalia spp., Erythrophleum chlorostachys, Melaleuca nervosa (paperbark), Corymbia polycarpa and Lysiphyllum cunninghamii (bean tree) are the most commonly encountered species. The very sparse to sparse shrub layer (0.5-4m tall) is dominated by a variety of species depending on the location. Aristida spp. (three-awned speargrass), Panicum spp. (panic) Themeda arguens, Heteropogon contortus (black speargrass) and Arundinella setosa (reed grass) are the most frequent species in the sparse to mid-dense ground layer. Occurs on levees. Not a Wetland. (BVG1M: 9e).

**Short description:** Corymbia polycarpa +/- C. curtipes woodland on Mitchell River levees

**Supplementary descriptions:** Neldner and Clarkson (in prep), 88

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.29: Along Mitchell River floodplain in the Gulf Plains bioregion.

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

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Under review

### Regional ecosystem 3.3.30

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.8b. *Corymbia tessellaris* (Moreton Bay ash) is always present, and frequently dominates the sparse canopy (15-23m tall). *C. clarksoniana* (Clarkson's bloodwood) is usually present, and may dominant the canopy in some situations. *C. papuana* may be present in the canopy. *Eucalyptus acroleuca* (Lakefield coolibah) and *E. leptophleba* (Molloy red box) are occasionally present particularly in wetter micro sites. A very sparse to sparse sub-canopy tree layer (3-10m tall) is present, with *Planchonia careya* (cocky apple), *Melaleuca nervosa* (woodland paperbark), *Erythrophleum chlorostachys* (Cooktown ironwood), *Ficus opposita* (sandpaper fig) and *C. clarksoniana* the most frequent species. At some sites *M. viridiflora* dominates a conspicuous sub-canopy layer. The shrub layer (0.5-3m tall) varies from very sparse to mid-dense, with *Antidesma ghaesembilla*, *Flueggea virosa* subsp. *melanthesoides* and *C. clarksoniana* the most frequent species. The ground layer is mid-dense to dense, with *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass), *Themeda arguens*, *T. triandra* (kangaroo grass), *Sarga plumosum* (plume sorghum) and *Mnesithea rottboellioides* (northern canegrass) frequent dominant species. Associated with levees. Not a Wetland. (BVG1M: 16b).

**Short description:** *Corymbia tessellaris* +/- *Eucalyptus acroleuca* woodland on levees

**Supplementary descriptions:** Neldner and Clarkson (in prep), 91

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.30: *Eucalyptus acroleuca* is an endemic species confined to the Laura Lowlands.

**Comments:** 3.3.30: Lakefield area.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.31

**Description:** *Eucalyptus tetrodonta* (Darwin stringybark) woodland +/- *Corymbia clarksoniana* (Clarkson's bloodwood). *Eucalyptus phoenicea* can sometimes occur as a dominant. Both the sub-canopy and shrub layers are sparse to very sparse. Occurs on alluvial plains on the coastal lowlands. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.3.31a: *Eucalyptus tetrodonta* woodland +/- *Corymbia clarksoniana* +/- *Erythrophleum chlorostachys*. The very sparse to sparse sub canopy contains canopy species +/- *Grevillea glauca* +/- *Brachychiton diversifolius* +/- *Acacia* spp. The very sparse to sparse mixed shrub layer also contains canopy species +/- *Coelospermum reticulatum* +/- *Persoonia falcata*. Dominant species in the sparse to mid-dense ground layer include *Heteropogon triticeus*, *Schizachyrium fragile* and *Sarga plumosum*. Occurs on alluvial plains on the coastal lowlands. Not a Wetland. (BVG1M: 14b).

3.3.31b: *Eucalyptus phoenicea* (Scarlet Gum) woodland often with *E. tetrodonta* (Darwin stringybark) +/- *Erythrophleum chlorostachys* (Cooktown Ironwood). A very sparse subcanopy and/or shrub layer can contain canopy species +/- *Grevillea glauca* (clothespeg *Grevillea*). *Schizachyrium fragile* and *Panicum* spp. Are common in the sparse ground layer. Occurs on floodplains. Not a Wetland. (BVG1M: 14b).

3.3.31c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as part of 3.3.31a. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a distinct but discontinuous canopy (9-25m tall). *Corymbia nesophila* (Melville Island bloodwood) is a subdominant to codominant canopy species. A very sparse to sparse sub-canopy layer (5-12m tall) is characterised by *Asteromyrtus brassii*, *Neofabricia myrtifolia* (yellow teatree), *Grevillea glauca* (bushman's clothes peg) and *Acacia rothii* (Roth's wattle). Scattered low trees (2-6m tall) are sometimes present and a very sparse to mid-dense shrub layer (0.5-2m tall) is dominated by heath shrubs such as *Jacksonia thesioides*, *Neoroepera banksii*, *Choriceras tricornis* (Cape choriceras), *Asteromyrtus lysicephala* (back to front bush) and *Acacia calyculata* (a wattle). These often occur at high densities. The ground layer is usually very sparse to mid-dense and dominated by the sedge *Schoenus sparteus* and the grasses *Heteropogon triticeus* (giant speargrass) and *Eulalia mackinlayi* (silky browntop). Occurs on alluvial plains. Not a Wetland. (BVG1M: 14b).

3.3.31x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now vegetation community 3.3.31b. *Eucalyptus phoenicea* (scarlet gum) dominates the sparse canopy (14-23m tall). Scattered *E. tetrodonta* (Darwin stringybark), *Corymbia clarksoniana* (Clarkson's bloodwood), *C. stockeri* (gum-topped bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) trees are frequently present in the canopy. A very sparse sub-canopy tree layer (7-12m tall) is usually present with *Grevillea glauca* (bushman's clothes peg) and *Melaleuca nervosa* (woodland paperbark) prominent in this layer. The very sparse shrub layer (0.5-2m tall) consists of a variety of species. The sparse ground layer is dominated by the grasses, *Aristida* spp., *Schizachyrium* spp. and *Thaumastochloa* spp. Occurs on old alluvial sandy plains and ridges. Not a Wetland. (BVG1M: 14c).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia* spp. woodland on coastal plains

**Supplementary descriptions:**

**Subregions:** 6, 1, 7, 4, (2), (8), (5), (9), (2.4)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Cape Melville NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Olkola NP (CYPAL), Ngaynggarr NP (CYPAL), Alwal NP (CYPAL), Oyala Thumotang NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Apudthama NP (CYPAL), Biniirr NP (CYPAL), Juunju Daarra Nhirrpan NP (CYPAL), Olkola (Kurrumbila) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.31: Widespread across the bioregion.  
3.3.31a: On alluvial plains through-out the bioregion.  
3.3.31b: This replaces another vegetation community originally mapped as 3.3.31b, which is now part of 3.3.31a. Mostly in the Laura Basin in the south-east.  
3.3.31c: Mostly in the Laura Basin and in the lower Jardine River catchment.  
3.3.31x1: *C. stockeri* is most likely subsp. *peninsularis*. Laura Basin.

**Estimated extent:**<sup>1</sup> Pre-clearing 178000 ha; Remnant 2021 178000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

### Regional ecosystem 3.3.32

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now part of RE 3.3.50. *Melaleuca viridiflora* (broad-leaved paperbark) usually dominates the sparse canopy (8-18m tall). *M. clarksonii* (hard-barked teatree), *M. saligna* (paperbark), *M. quinquenervia* (paperbark) and *Lophostemon suaveolens* (swamp mahogany) may be codominant to dominant in the deepest part of the swamps. *Asteromyrtus symphyocarpa* (liniment tree) frequently dominates a sparse to mid-dense sub-canopy layer (4-10m tall) with *Calycopeplus casuarinoides* (false casuarina) on the margins of the wettest areas. A shrub layer is usually absent and the sparse to mid-dense ground layer consists of mainly short-lived aquatic species. On the margins of the swamps, *Banksia dentata* (banksia), *Neofabricia myrtifolia* (yellow teatree), *Thryptomene oligandra* (thryptomene) and *Grevillea pteridifolia* (golden grevillea) occur frequently. The floristic composition of this regional ecosystem varies with the duration and depth of wet season flooding. Occurs in sinkholes and drainage depressions. Not a Wetland. (BVG1M: 22b).

**Short description:** *Melaleuca viridiflora* +/- *M. saligna* woodland in sinkholes and drainage depressions

**Supplementary descriptions:** Neldner and Clarkson (in prep), 109

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.32: Predominantly in the south-west Peninsula.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.33

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.39x1. *Thryptomene oligandra* (thryptomene) dominates the sparse to mid-dense canopy (5-14m tall) often in association with *Melaleuca viridiflora* (broad-leaved teatree), *Neofabricia mjoebergii* (yellow teatree) and *Grevillea pteridifolia* (golden grevillea). *Corymbia clarksoniana* (Clarkson's bloodwood) and *Eucalyptus tetrodonta* (Darwin stringybark) are sometimes present as part of an emergent layer (8-15m tall). *Acacia torulosa* (northern lancewood) and *Syzygium eucalyptoides* subsp. *eucalyptoides* may occur as emergent trees but more frequently form part of the canopy. *Asteromyrtus symphyocarpa* (liniment tree), *Jacksonia thesioides* (broombush) and smaller individuals of canopy species make up a sparse to mid-dense sub-canopy layer (3-8m tall). A sparse shrub layer (0.5-4m tall) is present where *Styphelia ruscifolia*, *Neofabricia mjoebergii*, *Thryptomene oligandra*, *Alyxia spicata* (chain fruit) and *Pandanus* spp. (screw palm) occur at the highest densities. The diverse ground layer is sparse. *Schizachyrium* spp. (fire grass), *Thaumatococcus* spp., *Eriocaulon* spp. and *Ectrosia* spp. (hare's foot grass) often dominate this layer. Occurs on sides of longitudinal drainage depressions. Not a Wetland. (BVG1M: 28c).

**Short description:** *Thryptomene oligandra* and *Melaleuca viridiflora* woodland on sides of depressions

**Supplementary descriptions:** Neldner and Clarkson (in prep), 110

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.33: High diversity of plant species due to seepage from higher in landscape.

**Comments:** 3.3.33: Widespread across the south of the bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.34

**Description:** *Corypha utan* (Gebang palm) open woodland to woodland +/- *Eucalyptus acroleuca* (Lakefield coolabah) +/- *Melaleuca saligna*. Scattered *Antidesma ghaesembilla* and *Strychnos lucida* (strychnine bush) can occur in a very sparse shrublayer and/or subcanopy along with canopy species. The mid layers are generally absent but scattered canopy species and *Antidesma* spp. Can occur. The dense mixed grassy ground layer can contain a range of sedge and grass species. Occurs on alluvial plains. Not a Wetland. (BVG1M: 28b).

**Short description:** *Corypha utan* open woodland on alluvial plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 111

**Subregions:** 9, (6)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.34: Northern Lakefield NP. The naturalised grass *Urochloa subquadriflora*\* can dominate the ground-layer. Feral pigs selectively feed on the seeds severely reducing their reproductive viability.

**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 3.3.35

**Description:** *Eucalyptus acroleuca* woodland to open woodland +/- *Corypha utan* +/- *Melaleuca saligna*. A very sparse subcanopy of *E. acroleuca* occurs rarely. The very sparse shrublayer contains canopy spp. +/- *Flueggea virosa* +/- *Antidesma* spp. The very sparse to dense mixed grassy ground layer can contain *Cyperus* spp., *Eriachne* spp., *Panicum* spp. and *Themeda arguens*. Occurs on floodplains. Not a Wetland. (BVG1M: 16c).

**Short description:** *Eucalyptus acroleuca* woodland on floodplains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 112

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

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Rinyirru (Lakefield) RR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.35: *Eucalyptus acroleuca* is an endemic species confined to the Laura Lowlands.

**Comments:** 3.3.35: Mainly in Lakefield National Park along floodplains associated with the Normanby River.

**Estimated extent:**<sup>1</sup> Pre-clearing 32000 ha; Remnant 2021 32000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.36

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as (part) 3.3.16 and (part) 3.3.24. *Eucalyptus chlorophylla* (shiny-leaved box) dominates the very sparse to sparse canopy (8-25m tall). Other *Eucalyptus* spp. are occasionally present in the canopy. Scattered *Hakea persiehana* (bootlace oak), *Melaleuca viridiflora* (broad-leaved teatree) and *Erythrophleum chlorostachys* (Cooktown ironwood) are sometimes present as sub-canopy trees (4-12m tall). A shrub layer is rarely formed but scattered *Dolichandrone alternifolia* (lemonwood), *Grewia savannicola* (dog's balls) and *M. viridiflora* shrubs 0.5-2m tall may be present. The ground layer is sparse to dense and dominated by the grasses *Heteropogon contortus* (black speargrass), *Sarga plumosum* (plume sorghum), *Themeda arguens*, *T. triandra* (kangaroo grass) and *Dichanthium sericeum* subsp. *sericeum* (Queensland bluegrass). Occurs on alluvial plains. Not a Wetland. (BVG1M: 16c).

Vegetation communities in this regional ecosystem include:

3.3.36a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.16. *Eucalyptus chlorophylla* (shiny-leaved box) dominates the very sparse to sparse canopy (8-25m tall). Other *Eucalyptus* spp. are occasionally present in the canopy. Scattered *Hakea persiehana* (bootlace oak), *Melaleuca viridiflora* (broad-leaved teatree) and *Erythrophleum chlorostachys* (Cooktown ironwood) are sometimes present as sub-canopy trees (4-12m tall). A shrub layer is rarely formed but scattered *Dolichandrone alternifolia* (lemonwood), *Grewia savannicola* (dog's balls) and *M. viridiflora* shrubs 0.5-2m tall may be present. The ground layer is sparse to dense and dominated by the grasses *Heteropogon contortus* (black speargrass), *Sarga plumosum* (plume sorghum), *Themeda arguens*, *T. triandra* (kangaroo grass) and *Dichanthium sericeum* subsp. *sericeum* (Queensland bluegrass). Occurs on alluvial plains. Not a Wetland. (BVG1M: 16c).

3.3.36b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.24. *Eucalyptus leptophleba* (Molloy red box) dominates the very sparse to sparse canopy (8-25m tall) forming open woodlands or woodlands. *Corymbia dallachiana* (Dallachy's gum) is a frequent codominant tree in the open woodlands while *C. clarksoniana* (Clarkson's bloodwood) is often present in both structural formations. Other tree species are occasionally present in the woodlands. A very sparse sub-canopy tree layer (4-10m tall) is occasionally present in the open woodlands but more frequently in the woodlands. A very sparse shrub layer (0.5-2m tall) is sometimes present in which *Grewia savannicola* (dog's balls) and *Planchonia careya* (cocky apple) are the most commonly encountered species. The ground layer is mid-dense to dense and dominated by a variety of grasses including *Heteropogon triticeus* (giant speargrass), *H. contortus* (black speargrass), *Sarga plumosum* (plume sorghum) and *Capillipedium parviflorum* (scented top). Occurs on alluvial plains. Not a Wetland. (BVG1M: 9b).

**Short description:** *Eucalyptus chlorophylla* open woodland on alluvial plains in south of bioregion

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.36: Potential habitat for NCA listed species: *Astonia australiensis*, *Dendrobium johannis*.

**Comments:** 3.3.36: In south of bioregion extending into adjacent Gulf Plains bioregion.  
3.3.36a: In south of bioregion extending into adjacent Gulf Plains bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.37

**Description:** *Eucalyptus microtheca* open woodland+/- *Corymbia papuana*. The very sparse sub canopy can sometimes contain scattered *Barringtonia acutangula*. The very sparse shrub layer contains scattered *Cathormion umbellatum* *Antidesma ghaesembilla* and *Melaleuca viridiflora*. The sparse to mid-dense ground layer can contain *Eriachne* spp., *Melochia corchorifolia* and *Schizachyrium fragile*. Occurs on floodplains. Not a Wetland. (BVG1M: 16c).

Vegetation communities in this regional ecosystem include:

3.3.37a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as RE 3.3.37. Open woodland of *Eucalyptus microtheca* +/- *Corymbia papuana*. The very sparse sub canopy can sometimes contain scattered *Barringtonia acutangula*. The very sparse shrub layer contains scattered *Cathormion umbellatum* *Antidesma ghaesembilla* and *Melaleuca viridiflora*. The sparse to mid-dens ground layer can contain *Eriachne* spp., *Melochia corchorifolia* and *Schizachyrium fragile*. Occurs on floodplains. Not a Wetland. (BVG1M: 16c).

3.3.37b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as RE 3.3.37. Scattered trees of *Corymbia dallachiana* (Dallachy's gum) (9-15m tall) dominate the biomass and form a very sparse canopy. Occasional *Eucalyptus leptophleba* (Molloy red box) trees may be present. Shrubs and low trees are usually absent and the dense, tall ground layer is dominated by grasses. *Themeda arguens*, *Heteropogon triticeus* (giant speargrass) and *Capillipedium parviflorum* (scented top) are the primary grasses. *H. contortus* (black speargrass), *Dichanthium sericeum* subsp. *sericeum* (Queensland blue grass), *Sarga plumosum* (plume sorghum) and *Mnesithea rottboellioides* (northern cane grass) dominate small areas. Occurs on flood plains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Eucalyptus microtheca* +/- *Corymbia papuana* open woodland on floodplains

**Supplementary descriptions:**

**Subregions:** 7, (9), (8), (4), (1)

**Protected areas:** Oyala Thumotang NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.37: Northernmost populations of *Eucalyptus microtheca*. In some areas, *Eucalyptus leptophleba* (Molloy red box) may replace *E. microtheca*.

**Comments:** 3.3.37: *Corymbia dallachiana* previously known as *C. papuana*. Where invasion of vine thicket species has occurred this becomes a vegetation community in 3.3.38e. Archer River. These areas are regularly flooded and sometimes large areas are swept clean of ground vegetation.

3.3.37a: In some areas, *Eucalyptus leptophleba* (Molloy red box) may replace *E. microtheca*. Archer River. These areas are regularly flooded and sometimes large areas are swept clean of ground vegetation.

3.3.37b: Central Peninsula.

**Estimated extent:**<sup>1</sup> Pre-clearing 25000 ha; Remnant 2021 25000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.38

**Description:** Deciduous to semi-deciduous vine thicket that can contain *Lagerstroemia archeriana*, *Terminalia sericocarpa* and sometimes *Melaleuca* spp. *Eucalyptus microtheca* emergents sometimes occur. Occurs on heavy clay alluvium. Not a Wetland. (BVG1M: 7b).

Vegetation communities in this regional ecosystem include:

3.3.38a: Deciduous notophyll / microphyll vine thicket. The uneven canopy (5-10, rarely to 18m tall) is composed of a variety of species most of which are deciduous in the dry season. *Lagerstroemia archeriana* subsp. *archeriana* (crepe myrtle), *Strychnos lucida* (strychnine bush), *Diospyros hebecarpa* (grey ebony), *Croton arnhemicus* (hard cascarilla), *Larsenaikia ochreatea* (native gardenia) and *Memecylon pauciflorum* often occur at high densities. *Lagerstroemia archeriana* subsp. *archeriana* and *Bombax ceiba* (kapok) are frequently present as emergent trees up to 25m tall. *Eucalyptus microtheca* (coolabah) is a common emergent tree along the drainage lines of the Archer River and its tributaries. A sparse to mid-dense sub-canopy layer is sometimes present. *Ixora timorensis* (black berry tree), *Gardenia scabrella* (native gardenia), *Strychnos lucida* and *Cleistanthus apodus* (weeping cleistanthus) usually dominate the sparse to mid-dense shrub layer (0.5-6m tall). Vines are frequent in both the shrub and tree layers. The ground layer is usually sparse but can be mid-dense in areas where the tree canopy is sparse. *Abutilon auritum* (Chinese lantern), *Curcuma australasica* (Cape York lily) and *Oplismenus* spp. provide the greatest cover in the ground layer. Occurs on heavy clay alluvium west of the great dividing range. Not a Wetland. (BVG1M: 7b).

3.3.38b: Deciduous notophyll vine thicket dominated by *Terminalia sericocarpa* (damsonwood) and *Lagerstroemia archeriana* (crepe myrtle) with *Cordia dichotoma* (snotty gobbler tree), *Barringtonia acutangula* subsp. *acutangula* (freshwater mangrove) and *Buchanania arborescens* (satinwood) also common. An open subcanopy can include canopy species +/- *Antidesma ghaesembilla* (blackcurrant) +/- *Dendrolobium umbellatum* (horsebush). The sparse shrub layer can include a range of deciduous vine thicket species. The ground layer is generally sparse. *Ziziphus oenopolia* (wine jujube) often grows along the outer edge of this community. Occurs on heavy clay alluvium east of the Great Dividing Range. Not a Wetland. (BVG1M: 7b).

3.3.38c: Semi deciduous notophyll vine forest. Dominant species include *Canarium australianum*, *Terminalia subacroptera*, *Semecarpus australiensis*, *Buchanania arborescens* and *Acacia auriculiformis* +/- *Erythrina variegata* +/- *Welchiodendron longivalve* +/- *Parinari nonda* +/- *Chionanthus ramiflorus*. Can include isolated pockets of *Lophostemon suaveolens* (swamp mahogany) open forest. Occurs on alluvial to colluvial plains. Not a Wetland. (BVG1M: 7b).

3.3.38d: Deciduous vine thicket. The uneven canopy (4-8m tall) is dominated by a variety of species with *Terminalia oblongata* subsp. *volucris*, *Melaleuca citrolens* (scrub teatree), *Cochlospermum gillivraei* (kapok) and *Croton arnhemicus* the most frequent species. Occasional *Eucalyptus acroleuca* (Lakefield coolabah) trees are present as emergents (8-10m tall). The shrub layer is sparse to mid-dense, and 1-5m tall. There is an abundance of the scandent shrubs *Capparis sepiaria*, *Stigmaphyllon timoriense* and *Ziziphus oenopolia* present in the canopy and shrub layers. The ground layer is very sparse, with an accumulation of leaf litter on the ground. Occurs in depressions. Not a Wetland. (BVG1M: 7b).

3.3.38e: Low closed forest which often includes *Strychnos lucida*, *Memecylon pauciflorum*, *Larsenaikia ochreatea*, *Lagerstroemia archeriana*, *Croton arnhemicus* and *Terminalia muelleri*. Emergent *Elaeocarpus arnhemicus* and *Eucalyptus microtheca* are usually present. A sparse shrub layer often includes canopy species +/- *Capparis* spp. Occurs on heavy clay alluvium. Not a Wetland. (BVG1M: 7b).

**Short description:** Deciduous notophyll and/or microphyll vine thicket +/- *Lagerstroemia archeriana* on heavy clay alluvium

**Supplementary descriptions:**

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

**Protected areas:** Oyala Thumotang NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.38: High diversity of vascular plants, many with restricted distributions. Important wildlife corridors. The near threatened plant species *Margaritaria indica* occurs in this ecosystem.  
3.3.38d: Floristic affinities with deciduous vine thickets of central Cape York Peninsula.

<b>Comments:</b>	<p>3.3.38: Central part of bioregion and in the Torres Strait. Heavily used by cattle and feral pigs for shelter.</p> <p>3.3.38a: Central part of bioregion west of the dividing range. Heavily used by cattle and feral pigs for shelter.</p> <p>3.3.38b: Often grows along the edges of extensive grasslands of the Nesbit plain and the semi deciduous mesophyll/ notophyll vine forest. Central part of bioregion east of the dividing range. Heavily used by cattle and feral pigs for shelter.</p> <p>3.3.38c: Part of 3.11.2b was amalgamated into this vegetation community. Traditional burning practice has had a major structural impact on this community, most likely leading to a significant reduction in its original extent and floristic composition. Confined to Gebar Island in the Torres Strait.</p> <p>3.3.38d: Was previously mapped as 3.3.40a. Lakefield National Park.</p> <p>3.3.38e: Patches of forest with emergents <i>Eucalyptus microtheca</i> which were probably once RE 3.3.37. Central Peninsula mainly in the Archer River Basin.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 27000 ha; Remnant 2021 27000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	Threatening processes other than clearing.

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### Regional ecosystem 3.3.39

<b>Description:</b>	Semi-deciduous microphyll vine forest. A dense low tree/tall shrub layer (5-8m tall) is dominant and forms a fairly continuous, dense canopy. This layer is composed of a variety of semi-deciduous species with no species showing clear dominance. <i>Melaleuca clarksonii</i> (hard-barked teatree) and <i>M. saligna</i> (a paperbark) are frequent emergent trees (12-15m tall). A sparse low shrub layer (1-2m tall) is present. The ground layer is very sparse. Occurs in closed depressions. Palustrine. (BVG1M: 7b).
<b>Short description:</b>	Semi-deciduous microphyll vine forest +/- <i>Melaleuca</i> spp. associated with closed depressions
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 129
<b>Subregions:</b>	7, (4)
<b>Protected areas:</b>	
<b>Extent in reserves:</b>	No representation
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	3.3.39: Potential habitat for NCA listed species: <i>Fimbristylis adjuncta</i> .
<b>Comments:</b>	3.3.39: Batavia Downs area.
<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>	

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## Regional ecosystem 3.3.40

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.38. Low closed forest commonly containing *Terminalia oblongata* subsp. *volucris*, *Melaleuca citrolens* (scrub teatree), *Cochlospermum gillivraei* (kapok) and *Croton arnhemicus*. The shrub layer is sparse to mid-dense. A variant consisting of low open woodland of *Terminalia* spp. is found on heavy clay floodplains. Occurs in depressions in Lakefield area. Not a Wetland. (BVG1M: 7b).

Vegetation communities in this regional ecosystem include:

3.3.40a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.38d. The uneven canopy (4-8m tall) is dominated by a variety of species with *Terminalia oblongata* subsp. *volucris*, *Melaleuca citrolens* (scrub teatree), *Cochlospermum gillivraei* (kapok) and *Croton arnhemicus* the most frequent species. Occasional *Eucalyptus acroleuca* (Lakefield coolabah) trees are present as emergents (8-10m tall). The shrub layer is sparse to mid-dense, and 1-5m tall. There is an abundance of the scandent shrubs *Capparis sepiaria*, *Stigmaphyllon timoriense* and *Ziziphus oenopolia* present in the canopy and shrub layers. The ground layer is very sparse, with an accumulation of leaf litter on the ground. Occurs in depressions in Lakefield area. Not a Wetland. (BVG1M: 7b).

3.3.40b: [RE not in use]<sup>2</sup>: This vegetation community is no longer mapped. *Terminalia aridicola* subsp. *chillagoensis* (arid peach) and *T. platyphylla* dominate the biomass and form a very sparse canopy. sub-canopy trees are usually absent, but *Piliostigma malabaricum* is present in some areas. The shrub layer is very sparse to sparse with *Grewia savannicola* and *Antidesma ghaesembilla* occurring at highest densities. The mid-dense to dense ground layer is dominated by the herbs, *Themeda arguens*, *Heteropogon contortus* (black speargrass), *Desmodium* spp., *Scleria* spp., and *Fimbristylis* spp. Occurs on heavy clay on floodplains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Terminalia* spp. deciduous vine thicket in depressions in Lakefield area

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.40: Potential habitat for NCA listed species: *Ehretia microphylla*.  
3.3.40a: Floristic affinities with deciduous vine thickets of central Cape York Peninsula.

**Comments:** 3.3.40: Lakefield area.  
3.3.40a: Lakefield area.  
3.3.40b: Vicinity of Laura-Lakefield. More intensive cattle grazing probable in the future. Thickening up of some patches has occurred, probably due to a decreased fire frequency. Some areas in the Einasleigh Uplands are heavily infested with weeds.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.3.41

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.50f. *Melaleuca clarksonii* (hard-barked teatree) dominates the sparse to mid-dense canopy (5-15m tall). *M. saligna* (willow paperbark) may be present as emergent trees (8-15m tall) or part of the canopy. A very sparse sub-canopy layer (3-10m tall) is sometimes present. The very sparse shrub layer (0.5-4m tall) is frequently dominated by *Hakea pedunculata* and *Melaleuca* spp. The ground layer is very sparse and composed of a mixture of aquatic and terrestrial herbs. Occurs in swamps. Not a Wetland. (BVG1M: 22b).

**Short description:** *Melaleuca clarksonii* low open forest in swamps

**Supplementary descriptions:** Neldner and Clarkson (in prep), 139

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.41: In southern and western part of bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.42

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as either 3.3.49 or 3.3.68. Low woodland of *Melaleuca viridiflora* (broad-leaved teatree) +/- emergent *Corymbia clarksoniana* (Clarkson's bloodwood). Scattered trees are often found in a sparse sub-canopy, and the shrub layer is very sparse. A variant with a different mix of subdominants occurs near the Jardine River mouth. Occurs on drainage areas. Not a Wetland. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

3.3.42a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.49. *Melaleuca viridiflora* (broad-leaved teatree) dominates the sparse canopy (5-11m tall). Emergent trees of *Corymbia clarksoniana* (Clarkson's bloodwood) (7-23m tall) are sometimes present. Scattered low trees (2-5m tall) such as *Acacia* spp. (wattles), *Asteromyrtus symphyocarpa* (liniment tree) and *Banksia dentata* (banksia) may be present and a very sparse layer of shrubs (0.3-2m tall) may sometimes be present. The ground layer is sparse to dense and dominated by graminoids. *Schizachyrium* spp. (fire grass), *Scleria* spp. (milk drop sedge), *Fimbristylis* spp., *Eremochloa bimaculata* (poverty grass), *Aristida dominii* (three-awned speargrass) and *Schoenus sparteus* are some of the frequent species in this layer. Occurs on drainage areas. Not a Wetland. (BVG1M: 21a).

3.3.42b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.49. *Melaleuca viridiflora* (broad-leaved paperbark) dominates the sparse canopy (8-12m tall), with *Corymbia novoguineensis*, *Lophostemon suaveolens* (swamp mahogany), *M. stenostachya* (fibre-barked teatree) and *Parinari nonda* (nonda plum) occurring in the canopy at lower densities. *Banksia dentata* (tropical banksia) and *Petalostigma pubescens* (quinine) dominate the sparse low tree layer (3-4m tall). The ground and shrub layers are sparse. Occurs on drainage areas behind coastal dunes. Not a Wetland. (BVG1M: 21a).

3.3.42c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.68. *Melaleuca cajuputi* subsp. *platyphylla* +/- *Pandanus* spp. and *Acacia leptocarpa* shrubland (3-6m, and up to 10m where swampy). *A. auriculiformis* may also be prominent in the canopy adjacent to brackish wetlands. Occurs on alluvial plains. Not a Wetland. (BVG1M: 21b).

**Short description:** *Melaleuca viridiflora* low woodland in drainage areas

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.42: Potential habitat for NCA listed species: *Astonia australiensis*, *Habenaria vatia*.

**Comments:** 3.3.42: A variant (vegetation unit 144A) occurs on the drainage areas near the mouth of the Jardine River. *Melaleuca viridiflora* dominates the sparse canopy (8-12m tall) with *Corymbia novoguineensis* (bloodwood), *Lophostemon suaveolens* (swamp mahogany), *M. stenostachya* (teatree) and *Parinari nonda* (nonda plum) occurring in the canopy at lower densities. *Banksia dentata* (banksia) and *Petalostigma pubescens* (quinine berry) dominate the sparse low tree layer (3-4m tall). The ground and shrub layers are sparse. 3.3.42b (vegetation unit 144B) occurs on drainage areas on the marine plains north of the Mitchell River mouth. *M. viridiflora* dominates this low woodland (7-8m tall), with *M. nervosa* (a paperbark) subdominant. The ground and shrub layers are sparse. Scattered areas throughout the bioregion.  
3.3.42a: A variant on Mabuiag Island is a *Pandanus* spp. dominated open forest on seepage swamps. Scattered areas throughout the bioregion including the Torres Strait.  
3.3.42b: Mouth of Jardine River.  
3.3.42c: In areas fringing brackish wetlands *Acrostichum aureum* may be frequent in the ground layer. Northern Torres Strait islands.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.43

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.49. *Melaleuca viridiflora* (broad-leaved teatree) dominates the sparse canopy (7-9m tall). *Grevillea glauca* (bushman's clothes peg), *Acacia flavescens* (powderpuff wattle) and other low trees form minor components of the canopy. Scattered emergent *A. brassii* and *A. flavescens* (yellow wattle) trees (10-13m tall) are sometimes present. The sparse shrub layer (0.5-2m tall) is dominated by *Xanthorrhoea johnsonii* (grass tree). *Asteromyrtus symphyocarpa* (liniment tree) is often subdominant. The ground layer is short (0.2-0.4m tall) and mid-dense. It is dominated by *Schoenus sparteus*. *Dapsilanthus ramosus*, *Ectrosia leporina* (hare's foot grass) and *Rhynchospora* spp. may make up a significant proportion of the cover in the ground layer. Occurs on fans and alluvial plains. Not a Wetland. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

3.3.43x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.20. *Melaleuca nervosa* (woodland paperbark), *Corymbia setosa* (rough-leaved bloodwood) and *Grevillea glauca* (bushman's clothes peg) are usually codominant in the canopy (7-9m tall) and *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia clarksoniana* (Clarkson's bloodwood) are common emergents (12-13m tall) trees. The shrub layer (0.5-4m tall) is dominated by *Xanthorrhoea johnsonii* (grass tree). The ground layer is usually sparse to mid-dense and dominated by grasses usually *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (panic), *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Thaumastochloa* spp. Occurs on sandy alluvial plains. Not a Wetland. (BVG1M: 14b).

**Short description:** *Melaleuca viridiflora* +/- *Xanthorrhoea johnsonii* low woodland on fans and alluvial plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 147

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.43: Potential habitat for NCA listed species: *Dendrobium johannis*.

**Comments:** 3.3.43: Upper Archer and Wenlock river catchments.  
3.3.43x1: Restricted to the east coast alluvial plains near Lakefield National Park.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.44

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.9.2b. *Vachellia ditricha* (fish poison tree) dominates the sparse canopy (5-10m tall). Scattered emergent *Eucalyptus* spp. or *Corymbia* spp. (10-14m tall) are often present. Widely scattered shrubs (0.5-2m tall) are common with *Vachellia ditricha* the most frequently encountered. The mid-dense to dense ground layer is usually dominated by the grasses *Themeda arguens*, *Digitaria* spp. and *Sarga plumosum* (plume sorghum). Occurs on erosional plains. Not a Wetland. (BVG1M: 27a).

**Short description:** *Vachellia ditricha* low open woodland on erosional plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 149

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.44: Widely scattered patches.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.3.45

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.16. *Eucalyptus chlorophylla* (shiny-leaved box) dominates the very sparse to sparse canopy (7-15m tall). *E. microtheca* (coolibah) are occasionally present in the canopy. Scattered *Melaleuca stenostachya* (fibre-barked teatree) and less frequently, *Dolichandrone alternifolia* (lemonwood) are sometimes present as low trees (4-8m tall). A shrub layer is rarely formed, but scattered *D. heterophylla*, *Grevillea striata* (beefwood) and *Excoecaria parvifolia* (gutta percha) shrubs up to 3m tall are frequently present. The ground layer is sparse and dominated by grasses and sedges. *Sarga plumosum* (plume sorghum) may dominate in some areas, while *Aristida* spp., *Eriachne* spp., *Eragrostis* spp. and *Schizachyrium* spp. form the majority of the ground layer biomass elsewhere. Occurs on floodplain. Not a Wetland. (BVG1M: 16c).

**Short description:** *Eucalyptus chlorophylla* +/- *Melaleuca viridiflora* low open woodland on Mitchell River floodplain

**Supplementary descriptions:** Neldner and Clarkson (in prep), 151

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.45: Gulf Plains bioregion. Mainly floodplain of the Mitchell River.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.3.46

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.37. Scattered *Eucalyptus microtheca* (coolibah) dominate the very sparse to sparse canopy layer (5-12m tall). *E. chlorophylla* and *Corymbia dallachiana* (Dallachy's gum) are sometimes present in the canopy. *Grevillea striata* (beefwood) is frequently present as a sub-canopy tree (6-8m tall). A conspicuous shrub layer is rarely present. The ground layer is mid-dense and dominated by grasses. *Themeda arguens*, *Brachyachne convergens*, *Sarga plumosum* (plume sorghum), *Aristida* spp. and *Eriachne* spp. dominate the ground layer in various localities. Occurs on flat alluvial plains. Not a Wetland. (BVG1M: 16c).

**Short description:** *Eucalyptus microtheca* +/- *E. chlorophylla* low open woodland on Mitchell River alluvia

**Supplementary descriptions:** Neldner and Clarkson (in prep), 152

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.46: Mitchell River. *Cryptostegia grandiflora* infestations in some areas.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.3.47

**Description:** Melaleuca citrolens low woodland to low open woodland +/-M. foliolosa +/-M. viridiflora +/- Hakea pedunculata. Emergent Corymbia clarksoniana and/or Terminalia platyptera occur very rarely. A very sparse subcanopy and/or shrublayer can contain canopy species and H. pedunculata and Petalostigma banksii. The sparse to mid-dense grassy groundlayer often includes Schizachyrium spp., Aristida spp. and a range of sedge spp. Occurs in narrow bands along longitudinal drainage lines. Not a Wetland. (BVG1M: 21b).

**Short description:** Melaleuca citrolens +/- M. foliolosa low open woodland along drainage lines

**Supplementary descriptions:** Neldner and Clarkson (in prep), 153

**Subregions:** 8, 6, 1, (2), (5), (9), (2.4), (9.3)

**Protected areas:** Olkola NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Lama Lama NP (CYPAL), Muundhi (Jack River) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Cape Melville NP (CYPAL), Errk Oykangand NP (CYPAL), Alwal NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.47: Potential habitat for NCA listed species: Dendrobium johannis.

**Comments:**

**Estimated extent:**<sup>1</sup> Pre-clearing 84000 ha; Remnant 2021 84000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.48

**Description:** *Melaleuca saligna* low open woodland +/- *M. viridiflora*. Occurs in longitudinal drainage depressions and outwash plains. Contains Palustrine. (BVG1M: 21b).

Vegetation communities in this regional ecosystem include:

3.3.48a: *Melaleuca saligna* (weeping teatree) low open woodland. *M. viridiflora* (broad-leaved teatree) and *Hakea pedunculata* can also occur as canopy species. Very scattered, low trees and shrubs may be present. The ground layer is sparse and dominated by graminoids. In small depression areas the ground cover is mid-dense and dominated by sedges. An algal crust occurs over much of the soil surface. Occurs in longitudinal drainage depressions. Contains Palustrine. (BVG1M: 21b).

3.3.48b: *Melaleuca saligna* low woodland. Subdominant canopy species include *Melaleuca viridiflora* (broad-leaved paperbark) and *Asteromyrtus symphyocarpa* +/- *Asteromyrtus brassii* +/- *Corymbia* spp. +/- *Banksia dentata* (tropical banksia). *C. stockeri* subsp. *peninsularis* and *C. nesophila* can occur in the canopy or as emergents. *A. symphyocarpa* and *Pandanus* spp. are most frequently found in the open shrub layer. The ground layer is sparsely vegetated by sedges and grasses. Occurs on alluvial outwash plains. Not a Wetland. (BVG1M: 21b).

**Short description:** *Melaleuca saligna* +/- *M. viridiflora* low open woodland on drainage depressions and outwash plains

### Supplementary descriptions:

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

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Cape Melville NP (CYPAL), Alwal NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Contains Palustrine

**Special values:** 3.3.48: Potential habitat for NCA listed species: *Dendrobium johannis*.

**Comments:** 3.3.48: On the western side of the Cape RE 3.3.56 occupies similar landscape position. It has a similar species composition in the ground layer, but lacks the woody plant species. Laura Basin and Torres Strait.

3.3.48a: Laura Basin.

3.3.48b: Inner and Near Western Island groups of the Torres Strait islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 25000 ha; Remnant 2021 25000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.49

**Description:** *Melaleuca viridiflora* low open woodland to low woodland +/- *Corymbia clarksoniana* +/- *Grevillea glauca* +/- *Acacia* spp. An emergent layer often with *C. clarksoniana*, can occur, along with a range of other *Eucalyptus* spp. and *Corymbia* spp. A very sparse to sparse subcanopy layer often occurs with canopy spp. +/- *Petalostigma banksii* and sometimes heath species. The shrublayer also contains juvenile canopy spp. +/- *Antidesma* spp. The sparse to dense groundlayer often includes *Eriachne* spp., *Aristida* spp., *Schizachyrium* spp., sedge spp. and hydrophilic forbs. Occurs on alluvial plains and floodplains. Not a Wetland. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

3.3.49a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.49. Low open woodland to low woodland dominated by *Melaleuca viridiflora* (broad-leaved teatree). *Petalostigma banksii* (smooth-leaved quinine) can be sub-dominant to scattered in the canopy. *Corymbia clarksoniana* (Clarkson's bloodwood) can occur as scattered emergents. *P. banksii* is often dominant in an open but distinct sub-canopy along with scattered *Alphitonia pomaderroides* (soapbush), *Grevillea* spp. and *Melaleuca* spp. The sparse shrublayer also commonly includes scattered *P. banksii* and occasionally *Xanthorrhoea johnsonii* (grass tree). The open to mid-dense groundlayer is can be dominated by *Schizachyrium fragile* (fire grass), *Themeda triandra*, (kangaroo grass), *Eriachne* spp.. Where wetter sedges and hydrophilic forbs are common. Occurs on floodplains. Occurs on floodplains. Not a Wetland. (BVG1M: 21a).

3.3.49b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.49. Low open woodland to low woodland dominated by *Melaleuca viridiflora* (broad-leaved teatree). An emergent layer can occur, usually of *Corymbia clarksoniana* (Clarkson's bloodwood) though a range of other *Corymbia* spp. and *Eucalyptus* spp. may also occur. A range of other species may also occur in the canopy layer with the most likely species *C. clarksoniana*. The subcanopy layer can be absent to sparse and contain a range of woodland species including *Grevillea* spp., *Terminalia* spp., and *Acacia* spp.. There is often a sparse to open shrublayer with *M. viridiflora* re-growth plus juveniles of canopy species. A range of grasses can be dominant in the sparse to grassy groundlayer and include *Aristida* spp., *Eriachne* spp., *Alloteropsis semialata* (cockatoo grass) and sedges like *Fimbristylis* spp., *Scleria* spp., *Rhynchospora* spp. Often occur along with a range of hydrophilic forbs in wetter parts. Occurs on low-lying plains. Occurs on low-lying plains. Not a Wetland. (BVG1M: 21a).

3.3.49c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.49. *Melaleuca viridiflora* (broad-leaved paperbark), often with *M. stenostachya* (fibre-barked teatree), dominates the very sparse to sparse canopy (8-14m tall). A very sparse sub-canopy tree layer is usually present, and dominated by *Petalostigma banksii* (quinine), *M. foliolosa* (scale-leaved teatree) and *M. stenostachya*. Scattered shrubs consisting mainly of the same species plus *Croton arnhemicus* (hard Cascarilla) and *M. viridiflora* are sometimes present. *Xanthorrhoea johnsonii* (grass tree) dominates in some areas. The ground layer is sparse to mid-dense and dominated by *Sarga plumosum* (plume sorghum), *Alloteropsis semialata* (cockatoo grass), *Arundinella setosa* and *Eremochloa bimaculata* (poverty grass). Includes *M. viridiflora* low woodland with scattered emergent *C. clarksoniana* on broad drainage depressions. Occurs on flat plains and broad drainage depressions. Not a Wetland. (BVG1M: 21a).

3.3.49d: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.49. *Melaleuca viridiflora* (broad-leaved teatree) dominates a very sparse canopy (4-14m tall) with scattered emergent *Corymbia clarksoniana* (Clarkson's bloodwood) (8-18m tall) often present. Other *Corymbia* spp. or *Eucalyptus* spp. occur very occasionally as emergent trees. A very sparse sub-canopy tree layer (2-9m tall) is present at most sites with *M. viridiflora* and *Petalostigma pubescens* (quinine) occurring at the greatest densities. A very sparse shrub layer (<0.5 m) dominated by *M. viridiflora* juveniles is present at most sites. The ground layer is sparse to mid-dense and dominated by grasses or sedges in wetter parts. *Schizachyrium* spp. (fire grass), *Aristida* spp. (three-awned spear grasses), *Eriachne* spp. (wanderrie grasses) and *Eremochloa bimaculata* (poverty grass) are common dominant species in this layer. Occurs on current alluvial drainage lines. Not a Wetland. (BVG1M: 21a).

3.3.49x1: *Melaleuca cajuputi* open woodland to woodland on coastal plains. Occurs on coastal plains. Not a Wetland. (BVG1M: 21a).

**Short description:** *Melaleuca viridiflora* +/- *Corymbia clarksoniana* low open woodland on floodplains and alluvial plains

### Supplementary descriptions:

**Subregions:** 8, 6, 1, 7, (2), (4), (9), (5), (3), (2.4), (9.3), (2.6), (7.9)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Olkola NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Oyala Thumotang NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Cape Melville NP (CYPAL), Lama Lama NP (CYPAL), Alwal NP (CYPAL), Ngaynggarr NP (CYPAL), Batavia NP (CYPAL), Errk Oykangand NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Apudthama NP (CYPAL), Flinders Group NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Biniirr NP (CYPAL), Endeavour River NP, Olkola (Kurrumbila) RR 2, KULLA (McIlwraith Range) RR, Rinyirru (Lakefield) RR, Juunju Daarrba Nhirrpan NP (CYPAL)

<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.3.49: Potential habitat for NCA listed species: <i>Astonia australiensis</i> , <i>Dendrobium bigibbum</i> , <i>Dendrobium johannis</i> , <i>Fimbristylis adjuncta</i> , <i>Habenaria fuscina</i> , <i>Habenaria xanthantha</i> , <i>Hibbertia cymosa</i> , <i>Homoranthus tropicus</i> , <i>Hoya revoluta</i> , <i>Pluchea tenuis</i> , <i>Stemona angusta</i> , <i>Stylidium longissimum</i> .
<b>Comments:</b>	<p>3.3.49: REs 3.3.49x1, 3.3.42 (a&amp;b) and 3.3.43 were amalgamated into this RE. One of the most extensive REs in the bioregion. <i>Eucalyptus melanophloia</i> (silver-leaved ironbark) (6-10m tall) was recorded at one site. Widely distributed on floodplains, and extends into adjacent Gulf Plains bioregion.</p> <p>3.3.49a: The variant of vegetation unit 158A is very similar to 3.3.49 but is characterised by a very sparse to sparse shrub layer (0.5-2m tall) dominated by <i>Bossiaea armitii</i>. Other shrub species include <i>Alphitonia pomaderroides</i> (soapwood), <i>Melaleuca viridiflora</i>, <i>Acacia leptocarpa</i> (a wattle), <i>Asteromyrtus symphyocarpa</i>, <i>Calytrix leptophylla</i>, <i>Grevillea pteridifolia</i> (golden Grevillea) and <i>Neofabricia sericisepala</i> (yellow teatree). <i>Eucalyptus melanophloia</i> (silver-leaved ironbark) (6-10m tall) was recorded at one site.</p> <p>3.3.49b: This unit is derived from vegetation unit 159, but is restricted to those parts of the mapped unit no longer subject to inundation or saturation in the wet season.</p> <p>3.3.49c: Especially in the Lakefield area.</p> <p>3.3.49d: Especially in Lakefield.</p> <p>3.3.49x1: Often grades in to 3.3.61 with scattered <i>Melaleuca cajuputi</i> emergents. On the west coast of the bioregion.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 1117000 ha; Remnant 2021 1113000 ha
<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 3.3.50

**Description:** *Melaleuca* spp. woodland to open forest in swamps on floodplains and non-floodplain landforms. Occurs in swamps on floodplains and non-floodplain landforms. Palustrine. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

3.3.50a: *Melaleuca viridiflora* low open woodland to low woodland +/- *Neofabricia mjoebergii* +/- *M. nervosa*. *Corymbia* spp. Can occur as emergents. Where it occurs, a sparse subcanopy can contain *Livistona muelleri* and/or *Lophostemon suaveolens*. The very sparse shrub layer usually contains scattered juvenile canopy spp. The mid-dense to dense groundlayer can contain a range of grasses including *Sarga plumosum*, *Eriachne* spp. And sedge species. Occurs in swamps on floodplains. Palustrine. (BVG1M: 21a).

3.3.50b: *Melaleuca viridiflora* low woodland to open forest and (sometimes) tall open shrubland +/- *Lophostemon suaveolens* +/- *Asteromyrtus symphyocarpa*. The emergent layer can include a range of *Eucalyptus* spp. Or *Corymbia* spp. Where it occurs a very sparse subcanopy can contains *M. viridiflora*. The very sparse shrub layer contains *M. viridiflora* +/- *Petalostigma banksii*. The ground cover ranges from bare to mid-dense and include various grass species, *M. viridiflora* seedlings, sedges and a range of hydrophilic forbs. Occurs in swamps on non-floodplain landforms. Palustrine. (BVG1M: 21a).

3.3.50c: *Melaleuca saligna* woodland +/- *Leptospermum madidum* +/- *Calycopeplus casuarinoides*. The very sparse to sparse subcanopy often includes *M. saligna* and *Asteromyrtus symphyocarpa* +/- *M. viridiflora*. The very sparse shrub layer usually contains juvenile canopy species. When it occurs, the very sparse ground layer can contain a range of sedges and hydrophilic forbs. Occurs in swamps on floodplains. Palustrine. (BVG1M: 21a).

3.3.50d: *Melaleuca saligna* woodland to open woodland +/- *Corymbia clarksoniana*. The very sparse subcanopy and/or shrub layer often contains *Asteromyrtus symphyocarpa* +/- *Calycopeplus casuarinoides* +/- *M. viridiflora*. The very sparse to sparse ground layer can contain a range of grass and sedge species. Occurs in swamps on non-floodplain landforms. Palustrine. (BVG1M: 21a).

3.3.50e: *Melaleuca saligna* woodland +/- *Barringtonia acutangula*, *M. viridiflora*, *Lophostemon suaveolens* on in perennial swamps on floodplains. Occurs in perennial swamps on floodplains. Palustrine. (BVG1M: 21a).

3.3.50f: *Melaleuca clarksonii* low woodland to low open forest +/- *Asteromyrtus symphyocarpa* +/- *M. viridiflora* +/- *M. saligna*. It may also occur as a tall shrubland. Emergents of *M. clarksonii* and/or *M. saligna* sometimes occur. A very sparse sub-canopy and/or shrub layer often occurs with canopy species +/- *Calycopeplus casuarinoides* +/- *Hakea pedunculata*. The very sparse to sparse ground layer often includes sedge species such as *Fimbristylis* spp. And *Scleria* spp. Along with a range of hydrophilic forbs. Occurs in swamps on non-floodplain landforms. Palustrine. (BVG1M: 22b).

3.3.50g: *Melaleuca quinquenervia* shrubland to closed heath +/- *Asteromyrtus lysicephala* +/- *Gahnia sieberiana* +/- *Pandanus* spp. Scattered emergents of *Pandanus* spp. And *Grevillea pteridifolia* can occur. The groundlayer can contain a number of sedges and hydrophilic forbs and may stay wet or inundated for a number of months. Occurs on swamps predominantly on floodplains. Palustrine. (BVG1M: 22a).

3.3.50h: *Melaleuca arcana* (Cape York paperbark) low open forest. Scattered low shrubs are sometimes present. The ground layer is sparse and dominated by graminoids. The soil surface is generally covered with leaf litter. Occurs in swamps. Palustrine. (BVG1M: 22b).

3.3.50i: *Melaleuca cajuputi* open forest to woodland +/- *Lophostemon suaveolens*. A sparse subcanopy often contains canopy species. The very sparse shrub layer and contain scattered juvenile canopy species. The often swampy ground layer can contain a range of sedges and hydrophilic forbs. Occurs on swamps. Palustrine. (BVG1M: 22b).

3.3.50j: *Melaleuca leucadendra* open forest +/- *Lophostemon suaveolens* +/- *Calycopeplus casuarinoides*. The sparse subcanopy contains canopy species +/- *Asteromyrtus symphyocarpa* +/- *Barringtonia acutangula*. The very sparse to mid-dense ground layer frequently contains *Pseudoraphis spinescens* or *Chrysopogon elongatus*. Occurs in swamps on floodplains. Palustrine. (BVG1M: 22b).

3.3.50k: *Melaleuca quinquenervia* woodland to open forest. A sparse subcanopy and/or shrub layer often contains canopy species and *Acacia crassicarpa* +/- *Pandanus* spp. The dense ground layer often contains sedge species and *Lindsaea* spp. Occurs in swamps on non-floodplain landforms. Palustrine. (BVG1M: 21a).

3.3.50l: *Melaleuca* spp. woodland to open forest in swamps on floodplains. Occurs in swamps on floodplain landforms. Palustrine. (BVG1M: 21a).

3.3.50m: *Melaleuca* spp. woodland to open forest in swamps on non-floodplain landforms. Occurs in swamps on non-floodplain landforms. Palustrine. (BVG1M: 21a).

3.3.50x1: *Barringtonia acutangula* +/- vine thicket species low woodland to open forest. Occurs as a fringing woodland around swamps on coastal plains. Palustrine. (BVG1M: 28b).

**Short description:** *Melaleuca* spp. woodland on swamps on floodplains and non-floodplain landforms

**Supplementary descriptions:** Neldner and Clarkson (in prep), 159p

<b>Subregions:</b>	8, 7, 6, (1), (4), (9), (2), (5), (3), (2.4), (9.3)
<b>Protected areas:</b>	Rinyirru (Lakefield) NP (CYPAL), Olkola NP (CYPAL), Oyala Thumotang NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Apudthama NP (CYPAL), Alwal NP (CYPAL), Batavia NP (CYPAL), Cape Melville NP (CYPAL), Lama Lama NP (CYPAL), Ngaynggarr NP (CYPAL), Endeavour River NP, KULLA (McIlwraith Range) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Keatings Lagoon CP, Annan River (Yuku Baja-Muliku) NP, Wuthathi (Shelburne Bay) NP (CYPAL), Rinyirru (Lakefield) RR, Endeavour River RR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Palustrine
<b>Special values:</b>	3.3.50: Potential habitat for NCA listed species: <i>Homoranthus tropicus</i> .
<b>Comments:</b>	3.3.50: Grasslands and/or sedglands below the scale of mapping can occur in an open central area or a rim around the edge of swamps described in the vegetation communities of this RE. These swamps may also be ringed by mixed open woodlands below the scale of mapping, often with <i>Asteromyrtus symphyocarpa</i> . Widespread across Cape York Peninsula. 3.3.50e: Occurs on the Normanby river floodplain generally in perennial swamps. 3.3.50h: This was previously mapped as 3.3.67. Generally on floodplains, but may occur on non-floodplain landforms. 3.3.50i: Occurs on floodplains and non-floodplain landforms. 3.3.50k: May also occur on floodplains. 3.3.50l: These swamps are dominated by a variety of <i>Melaleuca</i> species. If the species is known refer to the appropriate vegetation community. 3.3.50m: These swamps are dominated by a variety of <i>Melaleuca</i> species. If the species is known refer to the appropriate vegetation community. 3.3.50x1: Most commonly occurs as a fringing woodland around wetlands but can also occur in dense stands 200m in diameter. Fringing woodlands around wetlands may be smaller than the mappable scale. On west coast of bioregion.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 256000 ha; Remnant 2021 253000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 3.3.51

<b>Description:</b>	<i>Melaleuca acacioides</i> and <i>M. foliolosa</i> tall shrubland to tall open shrubland +/- <i>M. saligna</i> +/- <i>M. viridiflora</i> +/- <i>Hakea pedunculata</i> . A very sparse low shrub layer contains upper shrub layer species +/- <i>Carissa lanceolata</i> +/- <i>Antidesma</i> spp. The very sparse to sparse ground layer often contains <i>Themeda</i> spp., <i>Eriachne</i> spp. and sedge species such as <i>Fimbristylis</i> spp., <i>Fuirena</i> spp. and <i>Cyperus</i> spp. Occurs on coastal plains on the landward side of mangroves. Contains Palustrine. (BVG1M: 21b).
<b>Short description:</b>	<i>Melaleuca acacioides</i> +/- <i>Hakea pedunculata</i> tall shrubland on coastal plains
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 164; Stanton, Fell & Gooding (2008), A13e, A13j.
<b>Subregions:</b>	6, 2, 9, 7, (3), (8), (5)
<b>Protected areas:</b>	Cape Melville NP (CYPAL), Lama Lama NP (CYPAL), Flinders Group NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Contains Palustrine
<b>Special values:</b>	3.3.51: Potential habitat for NCA listed species: <i>Pluchea tenuis</i> .
<b>Comments:</b>	
<b>Estimated extent:</b> <sup>1</sup>	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 3.3.52

**Description:** *Melaleuca foliolosa* usually with *M. saligna* low to open woodland +/- *M. viridiflora* +/- *M. citrolens*. Emergent *Melaleuca* spp. can occur. The subcanopy and/or shrublayer can occur and include canopy species +/- *M. acacioides* +/- *Bossiaea armitii*. The very sparse to mid-dense ground layer can contain a range of grasses and sedges. Occurs on naturally eroding drainage areas. Not a Wetland. (BVG1M: 21b).

Vegetation communities in this regional ecosystem include:

3.3.52a: [RE not in use]<sup>2</sup>: This vegetation community now mapped as 3.3.47. Tall shrubs of *Melaleuca citrolens* (scrub teatree) usually with *M. foliolosa* (scale-leaved teatree) dominate the very sparse to sparse canopy (3-6m tall). Scattered emergent *Excoecaria parvifolia* (gutta percha) trees up to 10m tall are present in some areas. A sparse low shrub layer is usually present. The ground layer is short and very sparse, with *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Fimbristylis* spp. being the most commonly encountered species. Bare areas are common. Occurs on naturally eroding drainage areas associated with streamlines. Not a Wetland. (BVG1M: 21b).

3.3.52b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.1.4. *Excoecaria parvifolia* (gutta percha) and *Hakea pedunculata* dominate the sparse canopy. Shrubs of *Melaleuca citrolens* (scrub teatree) usually with *M. foliolosa* (scale-leaved teatree) also occur in the canopy. A sparse low shrub layer is usually present and in this vegetation community *Lumnitzera racemosa* and *Melaleuca acacioides* (black teatree) may be present. The ground layer is short and very sparse, with *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Fimbristylis* spp. being the most commonly encountered species. Bare areas are common. Occurs on edges of saltpans. Not a Wetland. (BVG1M: 21b).

3.3.52c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as regional ecosystem 3.3.52. Tall shrubs of *Melaleuca citrolens* (scrub teatree) usually with *M. foliolosa* (scale-leaved teatree) dominate the very sparse to sparse canopy (3-6m tall). A sparse low shrub layer is usually present and often dominated by *Bossiaea armitii*. The ground layer is short and very sparse, with *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Fimbristylis* spp. being the most commonly encountered species. Bare areas are common. Eroding edges of drainage lines on coastal alluvial plains on central eastern CYP. Not a Wetland. (BVG1M: 21b).

**Short description:** *Melaleuca foliolosa* +/- *M. citrolens* tall shrubland on eroding drainage areas

**Supplementary descriptions:**

**Subregions:** 6, 1, (9), (5)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Lama Lama NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.52: Potential habitat for NCA listed species: *Dendrobium johannis*, *Myrmecodia beccarii*.

**Comments:** 3.3.52: Was previously mapped as 3.3.52c. Bare areas are common. On areas draining into Princess Charlotte Bay.  
3.3.52a: Western part of bioregion. Extends into adjacent Gulf Plains bioregion.  
3.3.52b: Cooktown.

**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 3.3.53

**Description:** *Neofabricia myrtifolia* low woodland to low open forest +/- *Melaleuca viridiflora* +/- *Asteromyrtus brassii*. *Callitris intratropica* emergents can occur. This RE rarely occurs as emergent canopy species over an *Asteromyrtus lysicephala* open heath. Occurs on streams and alluvial plains. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.3.53a: *Neofabricia myrtifolia* and *Thryptomene oligandra* low woodland to low open forest +/- *Lophostemon suaveolens* +/- *Acacia crassicaarpa* +/- *Banksia dentata*. *Callitris intratropica* can occur as an emergent. The sparse to mid-dense shrub layer includes canopy species and often includes *Asteromyrtus lysicephala*, *Jacksonia thesioides* and *Leucopogon yorkensis*. The sparse ground layer often contains *Lomandra banksii*, *Schoenus sparteus*, and juvenile canopy and shrub layer heath species. Occurs on streambanks and alluvial plains. Contains Riverine. (BVG1M: 28c).

3.3.53b: *Melaleuca viridiflora* and/or *Neofabricia myrtifolia* and/or *Asteromyrtus brassii* low open woodland to woodland +/- *Banksia dentata* +/- *Eucalyptus tetrodonta*. An emergent layer can occur and include canopy species +/- *Corymbia clarksoniana* +/- *Eucalyptus brassiana*. The sparse sub canopy can contain canopy species +/- *Grevillea* spp. The sparse to mid-dense shrub layer often contains *Asteromyrtus lysicephala* +/- *M. viridiflora* +/- *Persoonia falcata* +/- *Acacia* spp. The sparse to mid-dense ground layer is often dominated by *Schoenus* spp. and *Eriachne* spp. In some cases this community can also occur as an open heath of *Asteromyrtus lysicephala* and *M. viridiflora* with emergents of the above canopy species. Occurs on sandy alluvial plains. Not a Wetland. (BVG1M: 29a).

3.3.53c: *Neofabricia myrtifolia* and *Asteromyrtus brassii* woodland usually with emergent *Callitris intratropica*. A mid-dense subcanopy contains canopy species +/- *Atractocarpus sessilis* +/- *Leucopogon yorkensis*. A sparse shrub layer contains canopy species +/- *Psydrax* spp. +/- *Styphelia ruscifolia*. The sparse ground layer contains *Lomandra* spp. and *Cleistochloa* spp. Occurs on streams often at the landward side of coastal dunefields. Not a Wetland. (BVG1M: 29a).

3.3.53x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.53b. *Asteromyrtus lysicephala* (back to front bush), *Neofabricia myrtifolia* (yellow teatree), *Thryptomene oligandra* (thryptomene), *Hibbertia banksii* forma *banksii* and *Jacksonia thesioides* consistently occur at high densities and dominate the sparse to mid-dense canopy (0.5-2m tall). *Acacia* spp. (wattles) and *Banksia dentata* (swamp banksia) are often present as emergent shrubs (2-3m tall). The ground layer is very sparse and dominated by sedges, with *Baloskion tetraphyllum* subsp. *meiostachyum* the most frequent graminoid. Occurs on sandplains. Not a Wetland. (BVG1M: 29a).

3.3.53x2: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.67. *Melaleuca arcana* (Cape York paperbark) dominates the sparse to mid-dense canopy (0.5-3m tall). *Thryptomene oligandra*, *Asteromyrtus lysicephala* (back to front bush), *Baeckea frutescens* (weeping baeckea) and *Gahnia sieberiana* (saw sedge) are usually also present at high densities. These latter species may be taller than the predominant *M. arcana*, which may only reach 0.5m metres in places. Very occasional emergent *Grevillea pteridifolia* (toothbrush grevillea) trees up to 6 metres tall may be present. The ground layer is sparse to mid-dense and dominated by *Baloskion tetraphyllum* subsp. *meiostachyum*, *Dapsilanthus* spp. and *Schoenus sparteus*. In places, *Gahnia sieberiana* forms thick sedgelands up to 2 metres tall. Occurs on sandplains. Palustrine. (BVG1M: 29a).

**Short description:** *Neofabricia myrtifolia* +/- *Melaleuca viridiflora* low woodland on streams and alluvial plains

**Supplementary descriptions:**

**Subregions:** 4, 6, (7), (1), (5), (2), (3)

**Protected areas:** Apudthama NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Ngaynggarr NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Batavia NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Bromley (Ampulin) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.53: The near threatened species *Xanthostemon arenarius* occurs in this ecosystem.

**Comments:** 3.3.53: RE 3.3.54 and 3.3.55 were amalgamated in to this RE. Mainly in the northern part of the bioregion but also mapped in the Laura Basin.  
3.3.53a: Along the Jardine River and tributaries. Proposed new RE 3.5.19x7 was amalgamated in to this vegetation community.  
3.3.53b: Proposed new RE 3.5.19x3 was amalgamated in to this vegetation community.  
3.3.53x1: In some areas the structure has changed from a previously open heath with emergents to a woodland dominated by the previously emergent species. Wenlock River near Moreton.  
3.3.53x2: Shelburne Bay and Iron Range.

**Estimated extent:**<sup>1</sup> Pre-clearing 91000 ha; Remnant 2021 91000 ha

**VM class:** Least concern  
**Biodiversity status:** No concern at present  
**Biodiversity status notes:**

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## Regional ecosystem 3.3.54

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.53. *Asteromyrtus lysicephala* pen heath to shrubland +/- *Jacksonia thesioides* (broombush). Occurs along creeks on plateaus. Occurs along creeks on plateaus. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.3.54a: [RE not in use]<sup>2</sup>: This vegetation community now mapped as 3.3.53b. *Asteromyrtus lysicephala* (back to front bush), *Choriceras tricornis* and *Jacksonia thesioides* occur consistently at high stem densities in the sparse to mid-dense shrub layer (0.5-4m tall). A variety of other shrubs may be present and locally abundant. Scattered emergent trees (5-10m tall) are frequently present, with *Melaleuca viridiflora* (broad-leaved paperbark), *Allocasuarina littoralis* (black sheoak) and *Banksia dentata* (swamp banksia) occurring at high densities. A sparse, low shrub layer (0.5-1m tall) is often present, and dominated by *Asteromyrtus lysicephala*. The ground layer is short and sparse, with *Schoenus sparteus* the most consistent and abundant graminoid. Associated with streams, on low sandstone plateaus. Not a Wetland. (BVG1M: 29a).

3.3.54b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.53a. Low open forest to low woodland of *Neofabricia myrtifolia* (yellow teatree), *Asteromyrtus brassii*, *Welchiodendron longivalve* (yellow box penda) +/- *Acacia crassicaarpa* (spoon tree) +/- *Thryptomene oligandra*. Emergents of *Callitris intratropica* (cypress pine) and *Corymbia* spp. can occur. A mid-dense subcanopy often includes *Choriceras tricornis*, *Leucopogon yorkensis*, *Syzygium banksii* or *Sersalisia sericea*. The sparse to mid-dense shrub layer usually includes canopy species, *Alyxia spicata* (chain fruit) and a range of other heath species. The very sparse ground layer include a range of grasses, sedges and hydrophilic forbs. Occurs along streams on plateaus. Occurs along streams on plateaus. Not a Wetland. (BVG1M: 28c).

**Short description:** Open heath to shrubland of *Asteromyrtus lysicephala* along creeks on plateaus

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.3.54: Potential habitat for NCA listed species: *Pseudolycopodiella limosa*.

**Comments:** 3.3.54a: The height of the canopy is variable depending primarily on fire history. The frequent occurrence of species tolerant to periods of water logging, such as *Banksia dentata*, *Lophostemon suaveolens*, *Melaleuca saligna*, *Xanthostemon crenulatus*, *Melastoma malabathricum* subsp. *malabathricum*, *Utricularia* spp., *Fimbristylis* spp. and *Dapsilanthus* spp., characterises this regional ecosystem. Northern part of bioregion.  
3.3.54b: Throughout the catchments of western flowing rivers in the northern Peninsula.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.55

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.53b. *Asteromyrtus lysicephala* (back to front bush) dominates the sparse shrub layer (0.5-1.5m tall). *Neofabricia myrtifolia* (yellow teatree), *Alyxia spicata* and *Lomandra banksii* occur at high densities in the shrub layer. Scattered *Melaleuca arcana* (Cape York paperbark), *M. nervosa* (woodland paperbark) and *Lophostemon suaveolens* (swamp mahogany) occur as emergent trees (8-10m tall). Scattered emergent *Banksia dentata* shrubs (4m tall) are also present. The ground layer is sparse and dominated by *Schoenus sparteus* and *Eriachne pallescens*. Occurs on alluvial plains and pediment fans. Not a Wetland. (BVG1M: 29a).

**Short description:** *Asteromyrtus lysicephala* and *Thryptomene oligandra* open heath on alluvial plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 173

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.55: The structure of this regional ecosystem varies greatly depending on micro relief and fire history. In areas of impeded drainage, *Melaleuca arcana* trees may dominate. Headwaters of the Jack River and the lower Dulhunty River.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.56

**Description:** *Aristida* spp. and/or *Eriachne* spp. tussock grassland. Sedges including *Fimbristylis* spp., *Rhynchospora* spp. and *Cyperus* spp. are often prominent in the groundlayer. *Melaleuca* spp. can occur as emergents. Occurs in drainage depressions. Contains Palustrine. (BVG1M: 32a).

Vegetation communities in this regional ecosystem include:

3.3.56a: *Aristida* spp. (wanderrie grass) tussock grassland +/- *Eriachne* spp. (wandaerrie grass) +/- *Fimbristylis* spp. +/- *Ectrosia* spp. Scattered emergent *Melaleuca* spp. are often present. Occurs in drainage depressions on alluvial plains. Not a Wetland. (BVG1M: 32a).

3.3.56b: *Eriachne* spp. closed tussock grasslands +/- *Eragrostis* spp. *Eriachne burkittii* and *E. obtusa* (northern wanderrie grass) are common dominant species. Sedge species such as *Fimbristylis* spp. *Scleria rugosa* and *Rhynchospora* spp. can also be sub-dominant. Scattered emergents of *Melaleuca* spp. often occur. Occurs in drainage depressions on alluvial plains. Palustrine. (BVG1M: 32a).

3.3.56c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.56b. *Eriachne* spp. (wanderrie grass), *Aristida* spp. (three-awned speargrass), *Eragrostis* spp. (lovegrass) and *Fimbristylis* spp. dominate the cover of the short, mid-dense to dense ground layer. *Eriachne burkittii* and *E. obtusa* (northern wanderrie grass) are common dominant species. Very scattered *Melaleuca viridiflora* (broad leaved teatree) trees (5-6m tall) and shrubs (0.2-3m tall) are sometimes present. Other woody species occur sporadically. Occurs in longitudinal drainage depressions and alluvial plains that are saturated by groundwater. Not a Wetland. (BVG1M: 32a).

**Short description:** *Aristida* spp. and/or *Eriachne* spp. tussock grassland in drainage depressions

**Supplementary descriptions:**

**Subregions:** 8, 6, (9), (1), (2), (7), (5), (2.4)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Olkola NP (CYPAL), Cape Melville NP (CYPAL), Ngaynggarr NP (CYPAL), Alwal NP (CYPAL), Oyala Thumotang NP (CYPAL), Muundhi (Jack River) NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Contains Palustrine

**Special values:**

**Comments:** 3.3.56: On the eastern side of Cape York RE 3.3.48 occupies the same landscape situation. It has very similar ground layer species composition, with the difference being the greater number of woody plants. Holroyd Plain and less frequently in the Laura Basin.

3.3.56b: Vegetation community 3.3.56c was amalgamated in to this vegetation community.

3.3.56c: Sedges and hydrophilic species can be more abundant where saturated by groundwater. Commonly found in drainage depression in the western Cape but also occur in the Laura Basin.

**Estimated extent:**<sup>1</sup> Pre-clearing 155000 ha; Remnant 2021 155000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.57

**Description:** *Imperata cylindrica* closed tussock grasslands +/- *Mnesithea rottboellioides*. Sedge species such as *Fimbristylis* spp., *Cyperus* spp. and *Scleria* spp. are common. *Ludwigia* spp. is also often present as a sub-dominant. Scattered emergents of a range of species can occur. Occurs on coastal plains. Not a Wetland. (BVG1M: 32a).

**Short description:** *Imperata cylindrica* +/- *Mnesithea rottboellioides* closed tussock grassland on coastal plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 182; Stanton, Fell & Gooding (2008), A17d,A17g.

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

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Cape Melville NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.57: Nesbit and Lockhart Rivers and Torres Strait. Disturbed areas have been heavily colonised by the annual weed *Senna obtusifolia* and twining *Calopogonium mucunoides*.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Threatening processes other than clearing.

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### Regional ecosystem 3.3.58

**Description:** *Oryza* spp. closed tussock grassland +/- *Eleocharis* spp. +/- *Echinochloa* spp. This grassland is most commonly dominated by *Oryza* spp. (frequently *Oryza rufipogon*), but *Eleocharis* spp. or *Panicum trachyrhachis* may dominate patches. *Oryza australiensis* and *O. meridionalis* also occur as occasional species. Occurs on seasonally inundated depressions on coastal plains. Palustrine. (BVG1M: 32a).

**Short description:** *Oryza* spp. closed tussock grassland +/- *Eleocharis* spp. +/- *Echinochloa* spp. in seasonally inundated depressions on coastal plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 183

**Subregions:** 9, 8, 6, (2.4), (1), (2.1), (7)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Olkola NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 3.3.58: Provides wetland habitat for a flora and fauna.

**Comments:** 3.3.58: Occurs in seasonally inundated depressions and swamps on coastal alluvial plains. Predominantly on the south-west coast and Princess Charlotte Bay. Also occurs in the adjacent Gulf Plains bioregion. The spread of exotic ponded pasture species poses a threat to this ecosystem.

**Estimated extent:**<sup>1</sup> Pre-clearing 38000 ha; Remnant 2021 38000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.3.59

**Description:** *Sarga plumosum* closed tussock to tussock grassland. Other sub-dominant species that can be present include *Fimbristylis* spp., *Heteropogon triticeus*, *Scleria* spp., *Eriachne* spp. and *Pseudopogonatherum contortum*. A range of emergents can include *Melaleuca viridiflora* as well as *Corymbia* and *Eucalyptus* spp. Occurs on alluvial plains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Sarga plumosum* closed tussock grassland on alluvial plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 184-3

**Subregions:** 6, (7), (8)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Ngaynggarr NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.59: Careful fire management required to maintain these grasslands. RE 3.3.60x1 was amalgamated in to this RE. Predominantly in the south-east of bioregion. Large areas of this unit has been invaded by *Melaleuca viridiflora* (3.5.41 & 3.3.49) in the last 30 years.

**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 3.3.60

**Description:** Open tussock grassland of *Themeda arguens* +/- *Fimbristylis* spp. and *Panicum* spp. A *Chrysopogon filipes* dominated variant occurs on parts of the west coast. Occurs on alluvial plains. Not a Wetland. (BVG1M: 32a).

Vegetation communities in this regional ecosystem include:

3.3.60a: *Themeda arguens* closed tussock grassland to tussock grassland +/- *Fimbristylis* spp. +/- *Dichanthium* spp. +/- *Capillipedium parviflorum*. Occurs on coastal alluvial plains. Not a Wetland. (BVG1M: 32a).

3.3.60b: *Chrysopogon filipes* tussock grassland to closed tussock grassland +/- *Panicum trachyrhachis* +/- *Fimbristylis* spp. +/- *Heterachne* spp. Occurs on alluvial plains in western Cape York Peninsula. Not a Wetland. (BVG1M: 32a).

3.3.60x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.59. *Sarga plumosum* (plume sorghum) usually dominates the mid-dense to dense ground layer. Subdominant species vary with locality with *Themeda arguens*, *Eriachne* spp. and *Pseudopogonatherum contortum* recorded as subdominant species. Very scattered *Melaleuca viridiflora* (broad-leaved paperbark) shrubs and low trees may be present. Occasional taller trees up to 19 metres tall can occur very sparsely. Occurs on alluvial plains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Themeda arguens* closed tussock grassland on coastal plains

### Supplementary descriptions:

**Subregions:** 9, 6, 7, 4, (5), (2)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Lama Lama NP (CYPAL), Lizard Island NP, Muundhi (Jack River) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.3.60: Habitat for the endangered golden-shouldered parrot *Psephotus chrysopterygius*.

**Comments:** 3.3.60: East and west coast.

3.3.60b: West coast.

3.3.60x1: Careful fire management required to maintain these grasslands. Predominantly in the south-east of bioregion. Significant proportion of this unit has been invaded by *Melaleuca viridiflora* (3.5.14b & 3.3.50) in the last 30 years.

**Estimated extent:**<sup>1</sup> Pre-clearing 58000 ha; Remnant 2021 58000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.61

**Description:** Mixed tussock grassland or sedgeland including combinations of *Fimbristylis* spp., *Mnesithea rottboellioides*, *Oryza* spp. *Eriochloa crebra*, *Ischaemum* spp., *Panicum* spp., *Dichanthium sericeum*, *Eriachne burkittii*. Forbs are common and can include as *Ipomoea coptica*, *Crotalaria montana* and *Aeschynomene indica*. Emergents of *Melaleuca viridiflora*, *Pandanus spiralis* and *Acacia* spp. may occur. Occurs on alluvial plains. Not a Wetland. (BVG1M: 32a).

Vegetation communities in this regional ecosystem include:

3.3.61a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.61. This mid-dense to dense grassland may be dominated by a variety of species. Frequently the ground surface has gilgai microrelief. Sedges, *Panicum trachyrhachis* (native panic) and *Oryza australiensis* (Australian rice) dominate these wetter micro sites. On the drier raised areas, *Panicum* spp. are generally always present and *P. laevinode* is often dominant. The grasses *Sporobolus virginicus* (saltwater couch), *Eriachne* spp., *Heteropogon contortus* (black speargrass) and *Chrysopogon* spp. may be dominant in some areas. *Fimbristylis* spp. are always present but usually occur more frequently in areas with gilgai microrelief. Forbs only make a minor contribution to the overall cover. Scattered low trees such as the ghost gums *Corymbia dallachiana* (Dallachy's gum) and *C. bella* (ghost gum), and *Grevillea striata* (beefwood) are occasionally present. Occurs on coastal alluvial clay plains. Not a Wetland. (BVG1M: 32a).

3.3.61b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.61. This mid-dense to dense grassland may be dominated by a variety of species. Frequently the ground surface has marked gilgai microrelief. Sedges, *Panicum trachyrhachis* (native panic) and *Oryza australiensis* (Australian rice) dominate these wetter micro sites. On the drier raised areas, *Panicum* spp. are generally always present and *P. laevinode* is often dominant. The grasses *Sporobolus virginicus* (saltwater couch), *Eriachne* spp., *Heteropogon contortus* (black speargrass) and *Chrysopogon* spp. may be dominant in some areas. *Fimbristylis* spp. are always present but usually occur more frequently in areas with gilgai microrelief. Forbs only make a minor contribution to the overall cover. Scattered low trees such as the ghost gums *Corymbia dallachiana* (Dallachy's gum) and *C. bella*, and *Grevillea striata* (beefwood) are occasionally present. Occurs on inland alluvial plains. Not a Wetland. (BVG1M: 32a).

**Short description:** Mixed tussock grassland and sedgeland on alluvial plains

**Supplementary descriptions:**

**Subregions:** 8, 9, 7, (6), (2.4), (2.1)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Olkola NP (CYPAL)

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.61: The ground surface is markedly gilgaed, often with sedges, *Panicum trachyrachis* and *Oryza australiensis* in the gilgais. Forbs only make a minor contribution to the overall cover. Especially in the south-west of bioregion.  
3.3.61a: Differentiated from 3.3.61b by being on coastal cracking clay plains (mostly Qac geology). Especially in the south-west of bioregion.  
3.3.61b: Especially in the south-west of bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 117000 ha; Remnant 2021 117000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.3.62

**Description:** *Ischaemum australe* tussock grassland +/- *Imperata cylindrica* +/- *Mnesithea rottboellioides* +/- *Vandasina retusa*. Common emergents are *Acacia* spp., *Pandanus* spp. and *Melaleuca cajuputi*. Where close to brackish areas *Fimbristylis ferruginea* and the mangrove fern *Acrostichum aureum* can occur. Occurs on alluvial plain. Not a Wetland. (BVG1M: 32a).

**Short description:** *Ischaemum australe* grassland with *Pandanus* spp. confined to Torres Strait Islands

**Supplementary descriptions:** Neldner and Clarkson (in prep), 187, 187a; Stanton, Fell & Gooding (2008), A11a, A17a, A17e.

**Subregions:** 3, (2)

**Protected areas:** Lizard Island NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 3.3.62: Potential habitat for NCA listed species: *Apluda mutica*.

**Comments:** 3.3.62: Very restricted, being largely confined to the northern Torres Strait islands, with one area on Lizard Island. It is most extensive on Saibai Island. More extensive in the lowlands of Papua New Guinea. Small patches occur in a soakage area behind Elim Beach near Hopevale and on Lizard Island. Frequently burnt and cultivated for village gardens.

**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 3.3.63

**Description:** Eleocharis spp. open sedgeland to sedgeland +/- Fimbristylis spp. Occurs on floodplain and non-floodplain landforms. Palustrine. (BVG1M: 34c).

Vegetation communities in this regional ecosystem include:

3.3.63a: Eleocharis spp. open sedgeland to sedgeland +/- Fimbristylis spp. +/- Sporobolus virginicus. E. dulcis is frequently the dominant species, however, E. spiralis is abundant in some areas of shallower water. Other herbs only occur in low densities. Adjacent to saline areas a range of mangrove species occasionally occur as emergents. Predominantly on seasonally flooded coastal plains, but also other floodplain landforms. Palustrine. (BVG1M: 34c).

3.3.63b: Eleocharis spp. open sedgeland to sedgeland +/- Fimbristylis spp. E. dulcis is frequently the dominant species, however, E. spiralis is abundant in some areas of shallower water. Other herbs only occur in low densities. Predominantly on Tertiary plateaus but also other non-floodplain landforms. Palustrine. (BVG1M: 34c).

**Short description:** Eleocharis spp. open sedgeland swamps

**Supplementary descriptions:** Neldner and Clarkson (in prep), 190; Stanton, Fell & Gooding (2008), A20a.

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

**Protected areas:** Oyala Thumotang NP (CYPAL), Lama Lama NP (CYPAL), Keatings Lagoon CP

**Extent in reserves:** Low

**Wetland:** Palustrine

**Special values:** 3.3.63: Important wetland habitat.

**Comments:** 3.3.63: Limited in extent. Predominantly occurs on seasonally flooded saline coastal plains above the reach of the highest tides, but also occurs in swamps on Tertiary plateaus close to the coast. Heavily impacted by feral pigs on the mainland and by feral deer grazing and trampling on the Torres Strait islands. On the Torres Strait islands in particular, species composition is changing due to increased salinisation by increasing salt water incursions. In the Torres Strait islands, the freshwater aquatic habitat function is being impacted by Climbing Perch and Tilapia.  
3.3.63a: Along west coast, but most extensive north of Weipa and south of Aurukun. Heavily impacted by feral pigs.  
3.3.63b: Predominantly on Tertiary plateaus close to the west coast, but may occur further inland. Heavily disturbed by feral pigs.

**Estimated extent:**<sup>1</sup> Pre-clearing 12000 ha; Remnant 2021 11000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Impacted by feral pigs on the mainland and by feral deer on the Torres Strait islands. Under threat from sea level rise. Habitat function impacted by invasive fish.

## Regional ecosystem 3.3.64

**Description:** Baloskion tetraphyllum and/or Leptocarpus spp. and/or Dapsilanthus spathaceus open sedgeland to sedgeland. Asteromyrtus lysicephala, Nepenthes mirabilis, Utricularia spp., Drosera spp. (sundew), Selaginella spp., Pseudolycopodiella spp., Lateristachys spp., or Palhinhaea spp., may also be common. A. lysicephala, Melaleuca spp., Banksia dentata and Pandanus spp. Can occur as emergents. Occurs on drainage swamps. Palustrine. (BVG1M: 34c).

Vegetation communities in this regional ecosystem include:

3.3.64a: [RE not in use]<sup>2</sup>: This vegetation system is now mapped as 3.3.64. Baloskion tetraphyllum is a consistent graminoid, and forms a conspicuous ground layer (50-80cm tall) with a variety of other species. Anthelopsis undulata, Dapsilanthus spp., Isachne confusa, Eriocaulon spp., Schoenus sparteus and Fimbristylis spp. are frequent graminoids. Nepenthes mirabilis (Pitcher plant), Utricularia spp., Drosera spp. (sundew), Selaginella spp. And Pseudolycopodiella spp., Lateristachys spp., or Palhinhaea spp. Are distinctive forbs frequently present in this unit. In places, Gahnia sieberiana (saw sedge) dominates forming a mid-dense ground layer (1.0-1.2m tall). Very scattered emergent shrubs (0.5-6m tall) may be present with Asteromyrtus lysicephala (back to front bush) occurring at the greatest densities. Emergent Pandanus spp. (7-9m tall) are present in some areas. Occurs on drainage swamps in dunefields. Palustrine. (BVG1M: 34c).

3.3.64b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.20a. Gahnia sieberiana (saw sedge) dominates the sparse to mid-dense shrub layer (1-2m tall). Other frequent shrub species are Asteromyrtus lysicephala (back to front bush), Banksia robur (swamp banksia), Melastoma malabathricum subsp. malabathricum and Melaleuca polandii. Sparse emergent shrubs (2-4m tall) include Pandanus spp., Grevillea pteridifolia (toothbrush grevillea), Melaleuca quinquenervia (broad-leaved paperbark), Xanthorrhoea johnsonii (grass-tree), Baeckea frutescens (weeping baeckea) and Leptospermum polygalifolium. These swamps receive fairly continuous seepage from the surrounding sandstone areas throughout the year. Occurs on raised swamps on sandstone tablelands. Palustrine. (BVG1M: 34c).

3.3.64c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.20b. Sticherus spp. dominates the dense ground layer (1-2m tall), with Gleichenia sp. and Lindsaea sp. being other frequent fern species. Bromheadia pulchra, Dendrobium lobbii, Isachne confusa and Baloskion tetraphyllum subsp. Meiostachyum are frequent graminoids. Scattered shrubs (1-2.5m tall) are sometimes present and include Asteromyrtus lysicephala (back to front bush), Baeckea frutescens (weeping baeckea), Gahnia sieberiana (saw sedge) and Melastoma malabathricum subsp. Malabathricum. Emergent Asteromyrtus brassii, Dillenia alata (red beech), Neofabricia myrtifolia, Welchiodendron longivalve (yellow box-penda) and Xanthostemon crenulatus (4-5m tall) are sometimes present. Occurs in spring-fed, sheltered gorges in sandstone ranges. Palustrine. (BVG1M: 34e).

3.3.64x1: [RE not in use]<sup>2</sup>: This regional ecosystem now mapped as 3.3.64. Closed grassland of Isachne spp. and Schizachyrium spp. with variety of sedge species. Occurs on broad drainage depressions. Occurs on broad drainage depressions. Palustrine. (BVG1M: 34a).

**Short description:** Baloskion tetraphyllum subsp. meiostachyum and/or Leptocarpus spp. and/or Dapsilanthus spathaceus open sedgeland in drainage swamps

### Supplementary descriptions:

**Subregions:** 4, 7, (6), (2), (1), (9)

**Protected areas:** Apudthama NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Olkola NP (CYPAL), Cape Melville NP (CYPAL), Oyala Thumotang NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 3.3.64: High diversity of sedges.

**Comments:** 3.3.64: Includes Isachne spp. and Schizachyrium spp. tussock grasslands with variety of sedge species on broad drainage depressions found on streams draining east out of the Kimba plateau. Most extensive in the Jardine Swamps in the north.  
3.3.64b: East and north of Cape Flattery.  
3.3.64c: Sandstone ranges of the Richardson Uplands.  
3.3.64x1: Restricted to drainage patterns on the eastern edge of the Kimba Plateau.

**Estimated extent:**<sup>1</sup> Pre-clearing 56000 ha; Remnant 2021 56000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.3.65

**Description:** *Pseudoraphis spinescens* or *Cynodon dactylon* tussock grasslands swamps. Other grasses are also common. When flooded the floating plants such as *Monochoria* spp. (*monochoria*) and *Nymphoides* spp. (*marshworts*) may dominate in some areas while the bottom-rooted *Ludwigia perennis* (*water primrose*), *Nymphaea* sp. (*water lily*) and *Caldesia oligococca* (*caldesia*) are dominant in other areas. Tall graminoids that emerge above the water surface such as *Eleocharis* spp. (*bulkaru*), *Oryza rufipogon* (*wild rice*) and *Panicum trichoides* (a native panic) are occasionally present and may dominate in some areas. Emergent forbs such as *Aeschynomene* spp., *Melochia corchorifolia* and *Sesbania* sp. also occur frequently. *Melaleuca* spp. may occur as emergents or in a fringing woodland. Occurs in ephemeral lakes and lagoons. Palustrine. (BVG1M: 34d).

Vegetation communities in this regional ecosystem include:

3.3.65a: Clumped tussock grasslands on floodplains. The floristic composition varies by locality and is determined by the interaction of such factors as substrate, water depth and frequency and duration of flooding. *Melaleuca* spp. may occur as emergents or in a fringing woodland. Occurs in ephemeral lakes and lagoons on floodplains. Palustrine. (BVG1M: 34d).

3.3.65b: Clumped tussock grasslands on non-floodplain landforms. The floristic composition varies by locality and is determined by the interaction of such factors as substrate, water depth and frequency and duration of flooding. *Melaleuca* spp. may occur as emergents or in a fringing woodland. Occurs in ephemeral lakes and lagoons on non floodplains landforms. Palustrine. (BVG1M: 34d).

3.3.65c: *Phragmites* grassland in ephemeral swamps. Occurs in swamps on low river levees. Palustrine. (BVG1M: 34c).

**Short description:** Tussock grasslands in ephemeral lakes and lagoons

**Supplementary descriptions:**

**Subregions:** 6, 9, 7, 8, (2), (1), (4), (2.4), (5), (2.6)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Oyala Thumotang NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Ngaynggarr NP (CYPAL), Lama Lama NP (CYPAL), Alwal NP (CYPAL), Olkola NP (CYPAL), Cape Melville NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 3.3.65: High diversity of aquatic plants. Important habitat for wetland fauna.

**Comments:** 3.3.65: The floristic composition and dominance of this regional ecosystem varies with locality and is determined by the interaction of such factors as substrate, water depth and frequency and duration of flooding. The composition of swamps will change depending on the amount of water present. All of the wetlands occupied by this regional ecosystem are usually shallow and dry completely in the dry season. Through-out the bioregion on alluvial plains. Potentially threatened by spread of exotic ponded pasture species. Heavily damaged by feral pigs.  
3.3.65c: Limited distribution along the Watson River upstream of Aurukun, but may occur elsewhere on the west coast.

**Estimated extent:**<sup>1</sup> Pre-clearing 31000 ha; Remnant 2021 31000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:** 3.3.65c - Subject to damage by feral pigs

## Regional ecosystem 3.3.66

**Description:** Swamps dominated by a variety of aquatic plants forming a mid-dense canopy. Some of the bottom-rooted plants such as the *Eleocharis* spp. (bulkuru), *Oryza* spp. (wild rice) and *Nelumbo nucifera* (lotus lily) emerge above the water surface up to a height of 1 metre. Other bottom-rooted aquatics such as *Nymphaea* spp. (water lily) and *Nymphoides* spp. (marshwort) have floating leaves. *Azolla pinnata* (azolla) and *Monochoria cyanea* (monochoria) are free-floating aquatic plants. Fully submerged plants such as *Blyxa* spp. and *Najas tenuifolia* (water nymph) may be present. Where water depth is greater than 1.7 metres, only the fully submerged and floating aquatic plants survive hence the deepest parts of these wetlands usually have a free surface water. Narrow bands of fringing sedgelands or open forests usually occur around the edges of these wetlands with *Melaleuca* spp. usually being dominant. Occurs in permanent lakes and lagoons. Palustrine. (BVG1M: 34a).

Vegetation communities in this regional ecosystem include:

3.3.66a: [RE not in use]<sup>2</sup>: This vegetation community now mapped as 3.3.66. The margins of these permanent wetlands are vegetated with a variety of aquatic plants forming a mid-dense canopy. Some of the bottom-rooted plants such as the *Eleocharis* spp. (bulkuru), *Oryza* spp. (wild rice) and *Nelumbo nucifera* (lotus lily) emerge above the water surface up to a height of 1 metre. Other bottom-rooted aquatics such as *Nymphaea* spp. (water lily) and *Nymphoides* spp. (marshwort) have floating leaves. *Azolla pinnata* (azolla) and *Monochoria cyanea* (monochoria) are free-floating aquatic plants. Fully submerged plants such as *Blyxa* spp. And *Najas tenuifolia* (water nymph) may be present. Where water depth is greater than 1.7 metres, only the fully submerged and floating aquatic plants survive hence the deepest parts of these wetlands usually have a free surface water. Narrow (2-10m wide) bands of fringing open forests (13-20m tall) usually occur around the edges of these wetlands with *Melaleuca viridiflora* (broad-leaved teatree) or *M. leucadendra* (weeping paperbark) usually being dominant. Occurs in permanent lakes and lagoons frequently with fringing woodlands. Palustrine. (BVG1M: 34a).

3.3.66b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.2.27. *Lepironia articulata* forms an open sedgeland around the margins of the perennial lakes. It occurs in water depths of up to 1.5m. The deeper areas of the lakes are vegetation-free. On the shallow lake margins, *Schoenus calostachyus*, *Dapsilanthus elatior* and *Machaerina teretifolia* may occur in sparse swards. Occasional shrubs may be present on the lake margins. Occurs in alluvial plains. Palustrine. (BVG1M: 34a).

3.3.66x1: Riverbeds with rock or sand and associated waterholes. Occurs along major rivers and creeks. Riverine. (BVG1M: 16d).

3.3.66x1a: Rivers & water holes with permanent water. Occurs along major rivers and creeks. Riverine. (BVG1M: 16d).

3.3.66x1b: River beds without permanent water, generally sandy. Occurs along major rivers and creeks. Riverine. (BVG1M: 16d).

**Short description:** Lakes and lagoons dominated by a variety of aquatic plants, frequently with fringing woodlands or sedgelands

**Supplementary descriptions:**

**Subregions:** 7, 8, 6, 1, 4, (2), (5), (9), (2.4), (7.9), (2.1), (9.3)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Oyala Thumotang NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Olkola NP (CYPAL), Apudthama NP (CYPAL), Errk Oygangand NP (CYPAL), Batavia NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, KULLA (McIlwraith Range) NP (CYPAL), Cape Melville NP (CYPAL), Keatings Lagoon CP, Annan River (Yuku Baja-Muliku) RR

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 3.3.66: Potential habitat for NCA listed species: *Acmenosperma pringlei*, *Astonia australiensis*, *Dallwatsonia felliana*.  
3.3.66a: Habitat for the endangered plant species *Astonia australiensis* and near threatened aquatic species including *Aponogeton elongatus*. High diversity of aquatic species. Important habitat for wetland fauna, and permanent watering point for animals.  
3.3.66b: Tannin-rich lakes with low diversity of aquatic species.

**Comments:** 3.3.66: Habitat for the endangered plant species *Astonia australiensis* and near threatened aquatic species including *Aponogeton elongatus*. High diversity of aquatic species. Important habitat for wetland fauna, and permanent watering point for animals. Heavily used by cattle and feral pigs.  
 3.3.66a: Heavily used by cattle and feral pigs.  
 3.3.66x1: Rivers of widths less than or equal to 25mt are included in the surrounding RE.  
 3.3.66x1a: Rivers of widths less than or equal to 25mt are included in the surrounding RE.  
 3.3.66x1b: River beds with widths less than or equal to 25mt are included in the surrounding RE. Can include rocky and muddy substrates.

**Estimated extent:**<sup>1</sup> Pre-clearing 13000 ha; Remnant 2021 13000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Subject to damage from cattle and feral pigs.

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## Regional ecosystem 3.3.67

**Description:** *Melaleuca arcana*, *Asteromyrtus lysicephala* open heath to dwarf shrubland +/- *Gahnia sieberiana* +/- *Baeckea frutescens* +/- *Pandanus* spp. Emergents often occur and can include *Pandanus* spp. and *M. arcana*. The sparse to dense ground layer is often dominated by juvenile shrub species, *Baloskion tetraphyllum* +/- *Dapsilanthus* spp. +/- *Schoenus* spp. Occurs in swamps on sandplains. Palustrine. (BVG1M: 22b).

**Short description:** *Melaleuca arcana* open heath to dwarf shrubland in swamps

**Supplementary descriptions:** Neldner and Clarkson (in prep), 138-3

**Subregions:** 4, (6)

**Protected areas:** Apudthama NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Batavia NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Muundhi (Jack River) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 3.3.67: Provides wetland habitat for flora and fauna.

**Comments:** 3.3.67: Commonly occurs in low lying areas in the landscape, frequently experiencing waterlogging in the wet season. This is a new description for RE 3.3.67 which was previously mapped as 3.3.53x2. The previously mapped 3.3.67 is now mapped as 3.3.50h. North east of the bioregion.

**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 3.3.68

**Description:** Semi-deciduous notophyll vine thicket/forest to low open forest often containing *Melaleuca cajuputi* subsp. *platyphylla*, *Acacia auriculiformis*, *Terminalia subacroptera*. A range of vine thicket species can also occupy the canopy or sub-canopy and include *Mimusops elengi*, *Manilkara kauki*, *Drypetes deplanchei*, *Hibiscus tiliaceus* and *Excoecaria agallocha*. Prominent shrub species include *Capparis lucida*, *Gymnosporia inermis* and *Chionanthus ramiflorus*. Vines such as *Flagellaria indica* and *Opilia amentacea* are abundant. Occurs on alluvial plains and adjacent to the tidal zone. Not a Wetland. (BVG1M: 7b).

**Short description:** Semi-deciduous notophyll vine forest and thicket on alluvial plains

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), A13b, A14b, A2c.

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.68: A more open variant is a *M.cajuputi* low woodland with an *Acrostichum aureum* shrubland. Northern Torres Strait islands. A rare regional ecosystem that is threatened by sea level rise and changes in fire regimes. Impacted by feral deer grazing, browsing and antler rubbing destroying bark and branches.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Pre-clearing extent <1,000 ha. threatened by sea level rise. Impacted by change in fire regime. Impacted by deer grazing.

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### Regional ecosystem 3.3.69

**Description:** *Melaleuca dealbata* and *Corymbia clarksoniana* (Clarkson's bloodwood) tall open forest. A sub-canopy includes *C. clarksoniana*, *Livistona muelleri* and *Acacia crassicaarpa* (spoon tree). *Imperata cylindrica* (blady grass) forms the dominant ground cover. Occurs on alluvial plains. Not a Wetland. (BVG1M: 9e).

**Short description:** *Melaleuca dealbata* +/- *Corymbia clarksoniana* tall open forest on alluvial plains

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), A4c, A7c.

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.69: Restricted to Moa Island, Torres Strait. This community is heavily fragmented as a large proportion has been cleared.

**Estimated extent:**<sup>1</sup> Pre-clearing 100 ha; Remnant 2021 70 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Pre-clear area is <10,000ha and <30% of remnant is unaffected by degradation and biodiversity loss. Remnant is heavily fragmented by human habitation

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### Regional ecosystem 3.3.70

**Description:** Lophostemon suaveolens woodland to open forest +/- Melaleuca cajuputi subsp. platyphylla +/- Pandanus spp. +/- Livistona muelleri. All three subdominant canopy species can be more prominent in the sub-canopy +/- Acacia leptocarpa. The ground layer is dominated by Ischaemum australe, Imperata cylindrica (blady grass) and Vandasina retusa. Upper trunks and branches support epiphytes Myrmecodia platytyrea, Hydnophytum moseleyanum var. moseleyanum and Dischidia spp. In swampier areas Melaleuca cajuputi subsp. platyphylla may form a discrete open forest. Occurs on alluvial plains of northern Torres Strait Islands. Not a Wetland. (BVG1M: 28e).

**Short description:** Lophostemon suaveolens +/- Melaleuca cajuputi subsp. platyphylla +/- Pandanus sp. +/- Livistona muelleri woodland and open forest on alluvial plains of northern Torres Strait Islands

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), A7a, A8a.

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.3.70: An increase in Melaleuca species is occurring due to change in fire regime. Impacted by deer grazing and browsing. Northern Torres Strait Islands.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Impacted by deer grazing

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### Regional ecosystem 3.5.1

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.37b. Eucalyptus tetrodonta (Darwin stringybark) predominates forming a distinct but discontinuous canopy (18-34m tall). Corymbia stockeri subsp. peninsularis (gum-topped bloodwood) and Erythrophloeum chlorostachys (Cooktown ironwood) occasionally occur in the canopy but usually form a sparse sub-canopy layer (19-24m tall). Scattered low trees (4-8m tall) are sometimes present and a shrub layer (0.5-2m tall) composed of young trees and shrubby regrowth is often present. The ground layer is usually very sparse to mid-dense and dominated by grasses such as Schizachyrium spp. (fire grass), Alloteropsis semialata (cockatoo grass), Heteropogon triticeus (giant speargrass), Thaumastochloa spp. or Aristida spp. (three-awned speargrass). Occurs on deeply weathered plateaus and remnants. Not a Wetland. (BVG1M: 14a).

**Short description:** Eucalyptus tetrodonta +/- Corymbia stockeri subsp. peninsularis tall woodland on deeply weathered plateaus

**Supplementary descriptions:** Neldner and Clarkson (in prep), 1

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.5.1: RE 3.5.1 and 3.5.2 represent the maximum structural development of Eucalyptus tetrodonta (trees 32-34 m tall) throughout its entire range in tropical Australia.

**Comments:** 3.5.1: In the south.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.2

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.36b. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a distinct but discontinuous canopy (22-32m tall) with *Corymbia nesophila* (Melville Island bloodwood) present as a subdominant to codominant canopy species. Large *Erythrophleum chlorostachys* (Cooktown ironwood) trees may be present. These occur just below the canopy. A very sparse to sparse sub-canopy layer (8-25m tall) is dominated by *Eucalyptus* spp. and *Grevillea glauca* (bushman's clothes peg). Scattered low trees (4-8m tall) are sometimes present. *Acacia* spp. and *Eucalyptus* spp. dominate the sparse to very sparse shrub layer (0.5-2m tall). The ground layer is usually sparse to mid-dense and dominated by the grasses, *Sarga plumosum* (plume sorghum), *Heteropogon triticeus* (giant speargrass), *Alloteropsis semialata* (cockatoo grass) and *Eulalia mackinlayi* (silky browntop). Occurs on deeply weathered plateaus and remnants. Not a Wetland. (BVG1M: 14a).

**Short description:** *Eucalyptus tetrodonta* and *Corymbia nesophila* tall woodland on deeply weathered plateaus and remnants

**Supplementary descriptions:** Neldner and Clarkson (in prep), 2

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.5.2: RE 3.5.1 and 3.5.2 represent the maximum structural development of *Eucalyptus tetrodonta* (trees 32-34 m tall) throughout its entire range in tropical Australia. Habitat for squirrel glider *Petaurus norfolcensis*.

**Comments:** 3.5.2: One of the most widespread REs in the bioregion. Associated with bauxite plateaus. Significant areas near Weipa cleared for bauxite mining.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.5.3

**Description:** Semi-deciduous notophyll vine forest composed of a mixture of deciduous and evergreen trees. Deciduous buttressed emergent trees of *Ficus albipila* var. *albipila* are sometimes present. Common deciduous canopy trees include *Bombax ceiba*, *Canarium australianum* (scrub turpentine), *Ficus virens* (white fig), *Miliusa horsfieldii*, *Terminalia sericocarpa* (Damsonwood) and *Antiaris toxicaria* var. *macrophylla*. Common evergreen canopy trees include *Alstonia scholaris* (milky pine), *A. spectabilis* subsp. *spectabilis*, *Acmenosperma claviflorum*, *Beilschmiedia obtusifolia* (walnut), *Buchanania arborescens* (native mango), *Blepharocarya involucrigera* (rose batternut), *Elaeocarpus grandis* (blue quandong), *Syzygium bamagense*, *Calophyllum sil* and *Endiandra longipedicellata* (buff walnut). The mid-dense sub- canopy often includes *Cryptocarya endiandrifolia*, *Toeckia daemelianum*, *Arytera bifoliolata* (Cape coogara), *Chionanthus ramiflorus* (native olive) and *Acmenosperma claviflorum* and the palms *Caryota albertii*, *Ptychosperma elegans* and *Archontophoenix cunninghamiana*. A very sparse shrub/low tree layer is usually present with *Tabernaemontana orientalis*, *Ixora timorensis*, *Phaleria octandra*, *Atractocarpus sessilis*, *Myristica insipida* and *Syzygium fibrosum* the most commonly encountered species. Thick robust lianas such as *Austrosteenisia stipularis* and *Entada phaseoloides*, and thin wiry vine such as *Flagellaria indica* are common. Epiphytes are sparse. The ground layer is very sparse, and composed mainly of seedlings. Occurs on red earths on the Carnegie Tableland. Not a Wetland. (BVG1M: 2c).

Vegetation communities in this regional ecosystem include:

3.5.3x1: [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. *Welchiodendron longivalve* (yellow box-penda) dominates the dense uneven canopy (4-14m tall). *Acacia polystachya*, *Terminalia muelleri* (Mueller's damson) and *Canarium australianum* (scrub turpentine) are frequently codominant canopy trees. Occasional *Eucalyptus* spp. may be present as emergents. A mixed, sparse sub-canopy layer (2-8m tall) is sometimes present, with *Dalbergia densa* frequently present at high densities. A variable, but generally sparse shrub layer (0.5-2m tall) is usually present with *Alyxia spicata* (chain fruit), *Drypetes deplanchei* (yellow tulip), *Dalbergia densa*, *Acacia brassii*, *A. polystachya* and the vine *Abrus precatorius* frequently occurring. The ground layer is very sparse and composed of a variable mix of herb species. *Scleria* spp., *Schizachyrium* spp., *Curcuma australasica* and *Cheilanthes* spp. are characteristically found in this layer. Occurs on small sandplains on islands. Not a Wetland. (BVG1M: 2c).

<b>Short description:</b>	Semi-deciduous notophyll vine forest restricted to Carnegie Tableland
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 11, Stanton & Fell (2005) 55 in part
<b>Subregions:</b>	4, (3)
<b>Protected areas:</b>	
<b>Extent in reserves:</b>	No representation
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.5.3: The vulnerable plant species <i>Syzygium velarum</i> and near threatened species <i>Litsea macrophylla</i> , <i>Pandanus zea</i> and <i>Syzygium buettnerianum</i> occur in this ecosystem. High numbers of endemic plant species present.
<b>Comments:</b>	3.5.3: Restricted to lateritic Carnegie Tableland north of Bamaga. Clearing for grazing and horticulture are the main threats. Invasion of weed species is another threatening process. 3.5.3x1: Not mapped. Absorbed into vegetation communities included in the Torres Strait mapping. Badu and Moa Islands.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 10000 ha; Remnant 2021 10000 ha
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	Under review

### Regional ecosystem 3.5.4

**Description:** A diverse group of species which includes *Welchiodendron longivalve* (yellow box-penda), *Acacia polystachya* (wattle), *Buchanania arborescens* (native mango), *Dysoxylum oppositifolium* (pink mahogany), *Canarium australianum* (scrub turpentine), *Endiandra glauca* (coach walnut) and *Alstonia actinophylla* (milkwood) as dominants in a dense, even canopy (18-25m tall). A number of other species may be present in the canopy and dominate in places. At some sites the canopy may only be 8-15 metres tall and be dominated by single species such as *Choriceras tricornis* (Cape choriceras). A sparse to mid-dense sub-canopy layer (15-20m tall) and mid-dense low tree layer (3-8 m) are usually also present. The composition of these layers varies between individual vine forest patches. Thin wiry vines such as *Flagellaria indica* are frequent and often reach the top of the canopy. Scattered epiphytic orchids are present on the lower branches of the canopy trees. The ground is covered with a

thick layer of leaf litter and rocks frequently outcrop. Scattered forbs and tree seedlings are usually present. Occurs as small patches on plateaus. Not a Wetland. (BVG1M: 2c).

Vegetation communities in this regional ecosystem include:

3.5.4x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.33. A mid-dense to dense, uneven canopy (12-35m tall) is often dominated by the evergreen trees *Welchiodendron longivalve* (yellow box-penda), *Emmenosperma alphitonioides*, *Halfordia kendack*, *Syzygium forte* subsp. *forte*, *Acmena hemilampra* subsp. *hemilampra* and *Flindersia afflaiana*. Other frequent canopy trees that may be codominants in places include *Acacia polystachya*, *Blepharocarya involucrigera* (rose butternut), *Alstonia actinophylla* (milkwood), *Buchanania arborescens* (native mango) (walnut), *Podocarpus grayae*, *Sterculia quadrifida* and *Endiandra glauca*. Occasional evergreen emergent trees up to 40 metres tall are present. A number of species may be present in the sparse to mid-dense sub-canopy layer (10-22m tall) with *Endiandra glauca* (coach walnut) the most frequently encountered tree and *Ptychosperma elegans* the most frequent palm. A sparse to mid-dense shrub/low tree layer (0.5-10m) is usually present. *Atractocarpus sessilis* and *Choriceras tricornis* are the most frequent species in this layer. *Wilkia rigidifolia*, *Syzygium fibrosum*, *Tabernaemontana orientalis* and *Cryptocarya cunninghamii* are often present. The palms, *Licuala ramsayi* (fan palm), *Hydriastele wendlandiana* and *Ptychosperma macarthurii* are frequently present in the lower tree layers. The composition of these layers varies between individual vine forest patches. Thin wiry vines such as *Flagellaria indica*, *Smilax australis*, *S. glycyphylla* and *Strychnos minor* are common, and often reach the top of the canopy. Scattered epiphytic orchids are present on the lower branches of the canopy trees. The ground is covered with a thick layer of leaf litter, and rocks frequently outcrop. Scattered ferns, graminoids and tree seedlings are usually present. Occurs on sandplains & plateaus. Not a Wetland. (BVG1M: 2c).

3.5.4x2: [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. *Acacia crassicarpa* (spoon tree) dominates the mid-dense to dense canopy (6-15m tall). *Neofabricia myrtifolia* (yellow teatree) and *Syzygium banksii* are frequently codominant trees. The sparse to dense sub-canopy (2-8m tall) is composed of a variety of trees, with *Atractocarpus sessilis*, *Choriceras tricornis*, *Psydrax* spp., *Leucopogon yorkensis* and *Halfordia kendack* occurring at the highest densities. *Pandanus conicus* is frequently present as a conspicuous low tree. The sparse shrub layer (0.5-2m tall) is composed of a variety of shrubs and young trees of species of the upper layers, with *Alyxia spicata* and *Lithomyrtus obtusa* occurring locally at high densities. The ground layer is very sparse, mainly composed of scattered graminoids. Occurs on sandsheets close to the coast. Not a Wetland. (BVG1M: 3a).

3.5.4x3: [RE not in use]<sup>2</sup>: This proposed new RE is now mapped as 3.5.33. Simple evergreen notophyll vine forest on sand plains. RE is defunct. Not a Wetland. (BVG1M: 3a).

3.5.4x4: [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. The dense to mid-dense canopy (6-20m tall) is dominated by a variety of species including *Asteromyrtus angustifolia*, *Neofabricia myrtifolia* (yellow teatree), *Syzygium banksii*, *Acacia crassicarpa* (spoon tree) and *Araucaria cunninghamii* (Hoop pine). A sparse emergent tree layer of *A. cunninghamii* (15-30m tall) is present in small patches. The sparse to mid-dense sub-canopy (2-8m tall) is composed of a variety of trees, with *Atractocarpus sessilis*, *Choriceras tricornis*, *Psydrax* sp., *Leucopogon yorkensis* and *Pandanus conicus* occurring at the highest densities. The sparse shrub layer (0.5-2m tall) is composed of shrubs and young trees of species of the upper layers. *Eugenia reinwardtiana*, *Pimelea aquilonia*, *Myrsine variabilis*, *Choriceras tricornis* and *Styphelia ruscifolia* occur in large numbers. The ground layer is very sparse, and mainly composed of the graminoids, *Arthrostylis aphylla*, *Lomandra* spp. and *Dianella* spp. Occurs on coastal plains. Not a Wetland. (BVG1M: 3a).

3.5.4x5: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.12.3b. A fairly even, closed canopy (12-35m tall) dominated mainly by *Acacia polystachya* (a wattle), *A. midgleyi* (brown salwood) or *Blepharocarya involucrigera* (rose butternut). *Canarium australicum* (scrub turpentine), *Grevillea baileyana* (Findlay's silky oak) *Lophostemon suaveolens* (swamp mahogany), *Argyrodendron polyandrum* (brown tulip oak) and *Buchanania arborescens* (native mango) are often present and subdominant in the canopy. *Eucalyptus* spp. form a sparse emergent layer (20-40m tall) in places. The sub-canopy layer (10-25 metres tall) consists of a variety of evergreen species with *Cryptocarya cunninghamii* (coconut laurel), *C. vulgaris* (northern laurel), *Dysoxylum acutangulum*, *Endiandra glauca* (coach walnut) and *Chionanthus ramiflorus* (native olive) the most frequent trees. A sparse, low tree layer (0.5-10m tall) is usually present. *Atractocarpus sessilis* (native gardenia), *Diploglottis macrantha*, *Tabernaemontana orientalis*, *Cryptocarya claudiana*, *Wilkia rigidifolia* and *Cupaniopsis flagelliformis* (brown tuckeroo) are frequently present in this layer. Scattered slender vines such as *Flagellaria indica* (supplejack) and *Tetracera nordtiana* var. *nordtiana*, are frequent. The climbing palms, *Calamus caryotoides* (fish-tail lawyer vine) and *C. australis* (hairy mary) are often present, and form dense thickets in disturbed areas. Epiphytes such as *Drynaria quercifolia* are relatively scarce. A very sparse ground layer is composed of seedling trees, graminoids and ferns. Occurs on coastal plains. Not a Wetland. (BVG1M: 5d).

**Short description:** Semi-deciduous notophyll vine forest in small patches on northern plateaus

**Supplementary descriptions:** Neldner and Clarkson (in prep), 12, 12-10.

<b>Subregions:</b>	4, 7, (8)
<b>Protected areas:</b>	Apudthama NP (CYPAL), Batavia NP (CYPAL), Oyala Thumotang NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.5.4: Habitat for the near threatened species <i>Senegalia albizioides</i> and <i>Margaritaria indica</i> .
<b>Comments:</b>	3.5.4: The RE 3.7.2x2 was amalgamated into this RE. Great variability in species composition between patches. This RE also occurs in small patches on outcrops of deeply weathered rock (land zone 7) and sandstone outcrops (land zone 10). North of bioregion. 3.5.4x1: Shelburne Bay. 3.5.4x2: Lockhart River. 3.5.4x4: Cape Weymouth. 3.5.4x5: Lockhart River.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 15000 ha; Remnant 2021 15000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	There is evidence of contraction across the landscape. Subject to inappropriate fire regimes, weed invasion (particularly Gamba grass) and damage from feral cattle and pigs.

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## Regional ecosystem 3.5.5

**Description:** Woodland to open forest of *Corymbia novoguineensis* often with *Acacia crassicarpa* (spoon tree), *Lophostemon suaveolens* (swamp mahogany) and *Parinari nonda* (nonda plum). *C. nesophila* (Melville Island bloodwood), *C. tessellaris* (Moreton Bay ash) and *C. clarksoniana* (Clarkson's bloodwood) can also occur as dominants. The sparse to open subcanopy can include *Melaleuca viridiflora* (broad-leaved teatree), *Syzygium suborbiculare* (white apple) and *Livistona muelleri* (cabbage palm) as well as canopy species. The sparse shrublayer can include a range of species but usually includes *A. crassicarpa*, *Alyxia spicata* (chain fruit) and canopy species. In some areas *Cycas media* is prominent in the shrub layer. The mid-dense groundlayer is usually dominated by *Heteropogon* spp. (spear grass), *Aristida* spp. or *Sarga plumosum* (plume sorghum). Occurs on sandplains and remnant Tertiary surfaces. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

3.5.5a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.5. *Corymbia novoguineensis* dominates the sparse canopy (13-23m tall), with *C. tessellaris* (Moreton Bay ash) usually present and sometimes codominant. Scattered *C. nesophila* (Melville Island bloodwood) and *Lophostemon suaveolens* (swamp mahogany) frequently occur in the canopy. A sparse sub-canopy tree layer (8-15m tall) is usually present and dominated by the *Eucalyptus* spp., *Acacia* spp. or *Melaleuca viridiflora* (broad-leaved paperbark). These species also are frequent in the sparse shrub layer (0.3-1.5m tall). The mid-dense, tall ground layer is usually dominated by *Heteropogon triticeus*, *Aristida* spp., *Glycine tomentella*, *Cymbopogon bombycinus* and *Sarga plumosum* (plume sorghum). Occurs on low hills and sandplains. Not a Wetland. (BVG1M: 9e).

3.5.5b: [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse to mid-dense canopy (9-16m tall). *C. novoguineensis* (bloodwood) frequently is present as a subdominant canopy tree. Scattered *Neofabricia myrtifolia* (yellow teatree) are frequently present. The very sparse sub-canopy tree layer (6-10m tall) is composed mainly of *C. nesophila* trees. The shrub layer (0.5-3m tall) is sparse. Common species in this layer are *Dalbergia densa*, *Erythrophleum chlorostachys* (Cooktown ironwood), *C. nesophila*, *Lomandra banksii* (matrush) and *Neofabricia myrtifolia* (yellow teatree). The ground layer is sparse. *Alloteropsis semialata* (Cockatoo grass), *Mnesithea rottboellioides* (northern cane grass), *Lomandra* spp. and *Sarga plumosum* (plume sorghum) are the principal species in this layer. *Corymbia nesophila* +/- *C. novoguineensis* +/- *Eucalyptus* spp. woodland sandplains near coast. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia novoguineensis* +/- *C. tessellaris* woodland on sand plains on northern Cape York Peninsula

### Supplementary descriptions:

**Subregions:** 4, 3

**Protected areas:** Apudthama NP (CYPAL), Jardine River NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 3.5.5: Potential habitat for NCA listed species: *Cycas semota*, *Dendrobium bigibbum*.

**Comments:** 3.5.5: Occurs on northern Cape York Peninsula and Torres Strait islands.

3.5.5a: Tip of Cape York Peninsula and Torres Strait Islands.

3.5.5b: North-east coast.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.6

**Description:** Woodland to open forest dominated by *Eucalyptus phoenicea* (scarlet gum). *E. tetrodonta* (Darwin stringybark), *E. leptophleba* (Molloy box), *Corymbia nesophila* (Melville Island bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) can also occur in the canopy. A sparse mixed subcanopy contains canopy species, *Grevillea* spp. and *Acacia* spp. The sparse to mid-dense shrub layer often contains *Coelospermum reticulatum* (medicine bush), *Acacia calyculata*, *Melaleuca nervosa*, *Persoonia falcata* (geebung) and *Planchonia careya* (cocky apple). The sparse ground layer is dominated by the grasses, *Aristida* spp., *Schizachyrium* spp. and *Thaumatococcus* spp. Occurs on sandy plains and ridges. Not a Wetland. (BVG1M: 14c).

**Short description:** *Eucalyptus phoenicea* woodland on sandy outwash plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 85, 86

**Subregions:** 6, 5, (2), (7)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Ngaynggarr NP (CYPAL), Cape Melville NP (CYPAL), Biniirr NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.6: *Eucalyptus portuensis* can be co-dominant. On the Battlecamp sandstone plateau.

**Estimated extent:**<sup>1</sup> Pre-clearing 40000 ha; Remnant 2021 40000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.5.7

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as part of either 3.5.37 or 3.5.39. Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) and/or *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood). Both the very sparse to sparse sub-canopy and shrub layers can contain a range of species. There are a range of communities contributing to this regional ecosystem. Occurs extensively on low rises and erosional plains both east and west of the Great Dividing Range in southern and eastern Cape York Peninsula. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.5.7a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.37a (part), 3.5.39 (part). *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a sparse canopy (12-28m tall). *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) is also frequently present in both the canopy and the very sparse to sparse sub-canopy tree layer (3-14m tall). *Grevillea glauca* (bushman's clothes peg), *Erythroxylum ellipticum* (matchwood), *Alphitonia pomaderroides* (soapwood), *Eucalyptus tetrodonta* and *Melaleuca nervosa* (woodland paperbark) are other common sub-canopy trees. A very sparse to sparse shrub layer (0.3-2.5m tall) is composed of a variety of young trees and shrubby regrowth. The ground layer is usually very sparse to mid-dense and dominated by grasses, usually *Schizachyrium* spp. (firegrass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panic), *Aristida* spp. (three-awn speargrass), *Alloteropsis semialata* (cockatoo grass) and *Thaumatococcus* spp. Occurs extensively on low rises and erosional plains both east and west of the Great Dividing Range in southern Cape York Peninsula. Not a Wetland. (BVG1M: 14b).

3.5.7b: [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. *Corymbia clarksoniana* (Clarkson's bloodwood) or *Erythrophleum chlorostachys* (Cooktown ironwood) usually dominate the canopy (14-20m tall) and *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) occur frequently as subdominant canopy species. The shrub and ground layers are similar to 3.5.7a. Mainly occurring on sandy depositional plains on the Edward/Coleman Fan. Not a Wetland. (BVG1M: 14b).

3.5.7c: [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. This vegetation community is a woodland (14-16m tall) dominated by *Corymbia clarksoniana* (Clarkson's bloodwood) with scattered *C. dallachiana* (Dallachy's gum) and *Melaleuca viridiflora* (broad-leaved teatree) in the canopy. *M. nervosa* (woodland paperbark), *Petalostigma pubescens* (quinine tree) and *Grevillea glauca* (bushman's clothes peg) are frequent sub-canopy trees (7-10m tall). *Xanthorrhoea johnsonii* (grasstree) dominates the very sparse shrub layer (1.0-2.5m). *Acacia humifusa* (a wattle), *Alphitonia pomaderroides*, *Croton arnhemicus* (hard cascarilla) and *Erythrophleum chlorostachys* (Cooktown ironwood) also commonly encountered in this layer. This unit is restricted to sandy depositional plains overlying granitic and metamorphic bedrock in the central Peninsula. Restricted to sandy

depositional plains overlying granitic and metamorphic bedrock in the central Peninsula. Not a Wetland. (BVG1M: 14b).

3.5.7d: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.39. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a sparse to mid-dense canopy. *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood), *C. tessellaris* (Moreton Bay ash) and *Lophostemon suaveolens* (swamp mahogany) may be frequently present in the canopy. The very sparse to sparse sub-canopy tree layer includes *Acacia flavescens* (powderpuff wattle), *Parinari nonda* (nonda plum), *Grevillea parallela* (silver oak), *E. chlorostachys*, *Grevillea glauca* (bushman's clothes peg), *Erythroxylum ellipticum* (matchwood), *Alphitonia pomaderroides* (soapwood), *Eucalyptus tetrodonta*, *Melaleuca nervosa* (woodland paperbark) or *Melaleuca viridiflora* (broad-leaved teatree). *Livistona muelleri* (dwarf fan palm) may be common in the sub-canopy tree layer and dominated this layer at one site. The very sparse shrub layer is composed of a variety of young trees and shrubby regrowth. The ground layer is usually sparse to mid-dense and dominated by *Heteropogon triticeus* (giant speargrass), *Mnesithea rottboellioides* (northern cane grass), *Sarga plumosum* (plume sorghum), *Schizachyrium* spp. (fire grass) or *Aristida* spp. Occurs on colluvial fans. Not a Wetland. (BVG1M: 14b).

3.5.7e: [RE not in use]<sup>2</sup>: This vegetation community is not mapped. *Eucalyptus tetrodonta* (Darwin stringybark) dominates the sparse canopy (18-20m tall) with *Corymbia clarksoniana* (Clarkson's bloodwood) a subdominant canopy tree. The distinctive mid-dense sub-canopy tree layer (8-10m tall) is dominated by *Asteromyrtus brassii* and *Neofabricia myrtifolia* (yellow teatree). Occurs on sandplains. Not a Wetland. (BVG1M: 14b).

3.5.7x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 9.5.8. Woodland to open woodland of *Eucalyptus cullenii* (Cullen's ironbark) and *Corymbia hylandii* (Hyland's bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *C. tessellaris* (Moreton Bay ash) +/- *Eucalyptus leptophleba* (Molloy red box) +/- *C. dallachiana* (Dallachy's gum). Occurs on undulating Tertiary residual surfaces. Not a Wetland. (BVG1M: 18b).

3.5.7x2a: [RE not in use]<sup>2</sup>: This proposed new vegetation community is now mapped as 3.5.39. *Eucalyptus tetrodonta* (Darwin stringybark) dominates the sparse canopy (10-25m tall). Other *Eucalyptus* spp. or *Corymbia* spp. may be present in the canopy and are occasionally codominant. *Corymbia clarksoniana* (Clarkson's bloodwood) and *C. disjuncta* or *E. leptophleba* (Molloy red box) occur most frequently. *Erythrophleum chlorostachys* (Cooktown ironwood) may also be codominant in the canopy. *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) and *C. nesophila* (Melville Island bloodwood) occur less frequently and are rarely codominant. *Melaleuca viridiflora* (broad-leaved teatree), *Grevillea glauca* (bushman's clothes peg), *G. parallela* (silver oak) and *Parinari nonda* (nonda) are the most commonly encountered species in the very sparse to sparse sub-canopy layer (3-16m tall). The very sparse to sparse shrub layer (0.5-4m tall) usually includes *Croton arnhemicus* (hard cascarilla), *Erythrophleum chlorostachys*, *Xylomelum scottianum* (woody pear), *Eucalyptus tetrodonta*, *Planchonia careya* and *Coelospermum reticulatum* (medicine bush). The ground layer is sparse to mid-dense and dominated by the grasses *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Eulalia mackinlayi* (brown silky top), *Eriachne* spp. (wanderrie grass) and *Schizachyrium* spp. (fire grass). Occurs on erosional plains and rises. Not a Wetland. (BVG1M: 14b).

3.5.7x2b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.39. Open woodland (15-18m) of *Eucalyptus tetrodonta* (Darwin stringybark), *Corymbia clarksoniana* (Clarkson's bloodwood) and *Eucalyptus leptophleba* (Molloy red box) +/- *Corymbia confertiflora* (broad-leaved carbeen) +/- *Eucalyptus platyphylla* (poplar gum) +/- *Erythrophleum chlorostachys* (Cooktown ironwood). *Melaleuca viridiflora* (broad-leaved teatree), *Grevillea glauca* (bushman's clothes peg), *G. parallela* (silver oak) and *Parinari nonda* (nonda) are the most commonly encountered species in the very sparse to sparse sub-canopy layer (3-16m tall). The very sparse to sparse shrub layer (0.5-4m tall) usually includes *Croton arnhemicus* (hard cascarilla), *Erythrophleum chlorostachys*, *Xylomelum scottianum* (woody pear), *Eucalyptus tetrodonta*, *Planchonia careya* and *Coelospermum reticulatum* (medicine bush). The ground layer is sparse to mid-dense and dominated by the grasses *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Eulalia mackinlayi* (brown silky top), *Eriachne* spp. (wanderrie grass) and *Schizachyrium* spp. (fire grass). Occurs on erosional plains and rises. Not a Wetland. (BVG1M: 14b).

3.5.7x2c: [RE not in use]<sup>2</sup>: This proposed new vegetation community is now mapped as 3.5.38a. *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) usually dominate the canopy (12-20m tall) in approximately equal proportions. *Erythrophleum chlorostachys* (Cooktown ironwood) and *Eucalyptus chlorophylla* (shiny-leaved box) may be present and form part of the canopy. A very sparse sub-canopy (3-10m tall) and shrub layer (0.5-1.5m tall) is usually present and dominated by juveniles of the canopy species. The grasses, *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Schizachyrium fragile* (fire grass) and *Themeda triandra* (kangaroo grass) dominate the sparse to mid-dense ground layer. Tertiary sandplains. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia clarksoniana* woodland on sand plains



**Supplementary  
descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.5.7: The vulnerable species *Jedda multicaulis* occurs in this ecosystem.

**Comments:** 3.5.7: Widespread.

3.5.7d: Cape Melville.

3.5.7e: This unit occurs at the north-eastern extremity of the geographical range of 3.5.7.

3.5.7x1: On sandy depositional plains on the Edward/Coleman Fan.

3.5.7x2a: Edge of the Weipa plateau and Merluna Plain.

3.5.7x2b: This proposed new vegetation community is now mapped as 3.5.39. Merluna Plain, Bertieshaugh and east of Weipa.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.8

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as part of either 3.5.37, 3.5.38 or 3.10.9. Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) or *C. stockeri* (gum-topped bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood). There is usually a very sparse sub-canopy layer. A very sparse to sparse shrub layer is also present. Occurs on undulating rises and erosional plains. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.5.8a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.37a. *Eucalyptus tetrodonta* (Darwin stringybark) dominates the sparse canopy (12-22m tall). *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is always present and *Erythrophleum chlorostachys* (Cooktown ironwood) is often present as subdominant canopy trees. *Corymbia nesophila* (Melville Island bloodwood) is occasionally present and may be dominant in places. *Adenanthera abrosperma* (bead tree), *E. chlorostachys* and *Grevillea glauca* (bushman's clothes peg) are the most frequently encountered trees in the very sparse sub-canopy layer (4-12m tall). A very sparse to sparse shrub layer (0.2-2m tall) is present. *Xanthorrhoea johnsonii* (grass tree), or less frequently, *Bossiaea armitii* dominates this layer. *Corymbia stockeri* subsp. *peninsularis*, *Eucalyptus tetrodonta*, *Planchonia careya* (cocky apple) and *Acacia rothii* (Roth's wattle) are other commonly encountered shrubs. The ground layer is sparse to mid-dense and dominated by grasses such as *Thaumastochloa* spp., *Heteropogon triticeus* (giant speargrass) and *Schizachyrium fragile* (fire grass) and the sedge *Schoenus sparteus*. Occurs on undulating rises and erosional plains. Not a Wetland. (BVG1M: 14b).

3.5.8b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.9a. *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia stockeri* (gum-topped bloodwood) co dominate the sparse canopy. *E. cullenii* (Cullen's ironbark) and *Erythrophleum chlorostachys* (Cooktown ironwood) are occasionally present as subdominant trees. The very sparse sub-canopy layer is dominated by the canopy eucalypts. A very sparse shrub layer is present where *Corymbia stockeri*, *Eucalyptus tetrodonta*, *Grevillea dryandri* subsp. *dryandri*, *Indigofera pratensis* (forest indigo) and *Persoonia falcata* (geebung) are the most commonly encountered species. The ground layer is sparse and dominated by the grasses *Triodia microstachya*, *Eriachne* spp., *Heteropogon triticeus* (giant speargrass) and *Themeda triandra* (kangaroo grass). Occurs on deep soils sandstone plateaus. Not a Wetland. (BVG1M: 14a).

3.5.8c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.38. *Corymbia stockeri* (gum-topped bloodwood) and *Eucalyptus tetrodonta* (Darwin stringybark) usually dominate the sparse canopy. *Melaleuca stenostachya* (fibre-barked teatree) usually dominates a very sparse sub-canopy tree layer. *M. viridiflora* (broad-leaved teatree) is also frequently present. A sparse shrub layer is usually present. *Petalostigma banksii* (smooth-leaved quinine) and *Corymbia stockeri* frequently dominate this layer. The ground layer is sparse to mid-dense and dominated by the grasses, *Schizachyrium fragile* (fire grass), *Sarga plumosum* (plume sorghum) and *Heteropogon triticeus* (giant speargrass). Occurs on eroding edges of plains & undulating rises. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia stockeri* subsp. *peninsularis* +/- *C. stockeri* woodland on erosional plains and sandstone plateaus

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.8: Coen Inlier and Bathurst Heads.  
3.5.8a: Coen Inlier.  
3.5.8c: This vegetation community is only small in area. South of Lakefield National Park.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.5.9

**Description:** Woodland dominated by *Eucalyptus tetrodonta* (Darwin stringybark) with *Corymbia stockeri* (gum-topped bloodwood) and/or *C. setosa* (rough-leaved bloodwood). *Erythrophleum chlorostachys* (Cooktown ironwood) is also often present. The open subcanopy often includes *E. chlorostachys*, *Grevillea glauca* (bushman's clothes peg), *G. parallela* (silver oak), *Neofabricia sericisepala* and *Petalostigma* spp. (quinine). The sparse to open shrub layer consists mainly of regrowth canopy species. The ground layer is sparse to dense and dominated by grasses usually *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Thaumastochloa* spp. Occurs on Tertiary plains and sandplains. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.5.9a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.9. *Eucalyptus tetrodonta* (Darwin stringybark) is always present in the sparse canopy (13-22m tall). It usually predominates or is codominant with *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) and/or *C. setosa* subsp. *pedicellaris* (rough-leaved bloodwood). *Erythrophleum chlorostachys* (Cooktown ironwood) is also often present in both the canopy and the very sparse to sparse sub-canopy tree layer (3-12m tall). *Grevillea glauca* (bushman's clothes peg), *G. parallela* (silver oak), *Neofabricia sericisepala*, *Petalostigma banksii* (smooth-leaved quinine), *Adenanthera abrosperma* (bead tree), *Corymbia stockeri* subsp. *peninsularis*, *C. setosa* subsp. *pedicellaris*, *Eucalyptus tetrodonta* and *Melaleuca nervosa* (woodland paperbark) are other frequent sub-canopy trees. A very sparse to sparse shrub layer (0.2-2.5m tall) is composed of a variety of young trees and shrubby regrowth. The ground layer is usually sparse to mid-dense and dominated by grasses usually *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (panic), *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Thaumastochloa* spp. Occurs on sandridges and sandplains. Not a Wetland. (BVG1M: 14b).

3.5.9b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.9. *Melaleuca nervosa* (woodland paperbark), *Corymbia setosa* (rough-leaved bloodwood) and *Grevillea glauca* (bushman's clothes peg) are usually codominant in the canopy (7-9m tall) and *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia clarksoniana* (Clarkson's bloodwood) are common emergents (12-13m tall) trees. The shrub layer (0.5-4m tall) is dominated by *Xanthorrhoea johnsonii* (grass tree). The ground layer is usually sparse to mid-dense and dominated by grasses usually *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (panic), *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Thaumastochloa* spp. Occurs on sandy depositional plains. Not a Wetland. (BVG1M: 14b).

3.5.9d: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.36a. *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia stockeri*, *C. nesophila* co dominate the sparse canopy. *C. nesophila* (Melville Island bloodwood) is present at most sites as a subdominant canopy tree. The very sparse to sparse sub-canopy layer is dominated by the same *Eucalyptus* spp. and *Corymbia* spp. which are found in the canopy and by *Acacia rothii* (Roth's wattle), *Grevillea glauca* (bushman's clothes peg), *Parinari nonda* (nonda) and *Erythrophleum chlorostachys* (Cooktown ironwood). The shrub layer varies from mid-dense to very sparse and is composed of a variety of species which may vary from site to site. The most commonly encountered species in this layer are *Eucalyptus* spp. and *Corymbia* spp. that also occur in the tree layer and *Planchonia careya*. The ground layer is sparse to mid-dense and dominated by the grasses *Heteropogon triticeus* (giant speargrass), *Aristida* spp. (three-awned speargrass), *Schizachyrium* spp. (fire grass) and *Sarga plumosum* (plume sorghum). Occurs on rolling plains. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus tetrodonta*, *Corymbia stockeri* +/- *C. setosa* woodland on sand plains

**Supplementary descriptions:**

**Subregions:** 8, (6), (1), (7), (2.4), (9)

**Protected areas:** Oikola NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Oyala Thumotang NP (CYPAL), Oikola (Kurrumbila) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.5.9: Habitat for the endangered golden-shouldered parrot, *Psephotus chrysopterygius*.

<b>Comments:</b>	3.5.9: The vegetation community 3.10.9e was amalgamated into this RE. At the northern extent of this community <i>Corymbia novoguineensis</i> can dominate the canopy and <i>C.setosa</i> is absent. <i>Corymbia setosa</i> is not always present but there is often a combination of mixed species, including heaths, in the community. <i>C.stockeri</i> is likely to be subsp. <i>Peninsularis</i> . Western side of Great Dividing Range to and Kalpowar Plains. Widespread in the southern half of the bioregion and occurs predominantly on the Holroyd Plain in close association with 3.5.37a. 3.5.9a: Western side of Great Dividing Range through to the west coast. 3.5.9b: Kalpowar Plains. 3.5.9d: Western & Central Peninsula.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 535000 ha; Remnant 2021 535000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 3.5.10

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.36a (part), 3.5.37a (part) or 3.5.39 (part). *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia nesophila* (Melville Island bloodwood) dominate the very sparse to mid-dense canopy (10-28m tall). In most situations both species are present and codominant, however, *C. nesophila* may be dominant or occasionally absent. *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is sometimes present in the canopy. A very sparse to sparse sub-canopy tree layer (8-20m tall) is present with *Erythrophleum chlorostachys* (Cooktown ironwood), just below the canopy, *Grevillea glauca* (bushman's clothes peg), *Parinari nonda* (nonda plum) and *Acacia rothii* (Roth's wattle) the most frequent species. A very sparse low tree layer (2-8m tall) is sometimes present. The shrub layer (0.3-2.5m tall) is dominated mainly by species that also occur in the tree layers and is sparse to mid-dense. The shrub layer of recently burnt areas is usually mid-dense. The ground layer is sparse to mid-dense and dominated by grasses. *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Thaumastochloa* spp. and *Eriachne* spp. (wanderie grass) frequently dominating the ground layer biomass. Occurs on gently undulating rises and low hills on kandosol soils. Not a Wetland. (BVG1M: 14a).

Vegetation communities in this regional ecosystem include:

3.5.10x1: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.5.35 (part). *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a distinct but discontinuous canopy (9-25m tall). *Corymbia nesophila* (Melville Island bloodwood) is a subdominant to codominant canopy species. A very sparse to sparse sub-canopy layer (5-12m tall) is characterised by *Asteromyrtus brassii*, *Neofabricia myrtifolia* (yellow teatree), *Grevillea glauca* (bushman's clothes peg) and *Acacia rothii* (Roth's wattle). Scattered low trees (2-6m tall) are sometimes present and a very sparse to mid-dense shrub layer (0.5-2m tall) is dominated by heath shrubs such as *Jacksonia thesioides*, *Neoroepera banksii*, *Choriceras tricornis* (Cape choriceras), *Asteromyrtus lysicephala* (back to front bush) and *Acacia calyculata* (a wattle). These often occur at high densities. The ground layer is usually very sparse to mid-dense and dominated by the sedge *Schoenus sparteus* and the grasses *Heteropogon triticeus* (giant speargrass) and *Eulalia mackinlayi* (silky browntop). Occurs on sandplains. Not a Wetland. (BVG1M: 14a).

<b>Short description:</b>	<i>Eucalyptus tetrodonta</i> and <i>Corymbia nesophila</i> woodland on sandy gently undulating rises and low hills
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 101
<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>	3.5.10x1: Heathlands.
<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>	

## Regional ecosystem 3.5.11

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.36a. *Eucalyptus tetrodonta* (Darwin stringybark) and either *Corymbia nesophila* (Melville Island bloodwood) or *C. stockeri* subsp. *peninsularis* (gum-topped bloodwood) usually co dominate to form the canopy (13-28m tall). *E. leptophleba* (Molloy red box) and sometimes *C. clarksoniana* (Clarkson's bloodwood) occur as scattered canopy or sub-canopy trees. *Erythrophleum chlorostachys* (Cooktown ironwood) and *C. confertiflora* (cabbage gum) frequently form a very sparse to sparse sub-canopy layer (12-18m tall). *Acacia rothii* (Roth's wattle), *Melaleuca viridiflora* (broad-leaved teatree), *Grevillea glauca* (bushman's clothes peg) and *Petalostigma* spp. (quinine) are also abundant in the sub-canopy layer but usually reach only 3-8m in height. A very sparse to mid-dense shrub layer (0.5-2m tall) dominated by shrubs and shrubby trees is always present. The ground layer is sparse to mid-dense and dominated by the grasses *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Heteropogon triticeus* (giant speargrass) and *Thaumastochloa* spp. frequent dominants. Occurs on lower slopes of plains and rises. Not a Wetland. (BVG1M: 14a).

**Short description:** *Eucalyptus tetrodonta* and *Corymbia nesophila* woodland on lower slopes of plains and rises

**Supplementary descriptions:** Neldner and Clarkson (in prep), 103, 103-5

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.5.11: Habitat for threatened plant species.

**Comments:** 3.5.11: The presence of *Eucalyptus leptophleba* and *Corymbia clarksoniana* in the canopy or sub canopy and frequently *Melaleuca viridiflora* in the sub canopy layer are helpful indicators of 3.5.11. A variant (vegetation unit 103A) occurs in widely scattered areas. It is characterised by a conspicuous sub canopy layer of *Livistona muelleri* (5-9m tall; density 240-320 stems/ha). *Corymbia nesophila* usually dominates the canopy and *Eucalyptus tetrodonta* is also present. The other layers have a similar composition to 3.5.11. Predominantly in the central Peninsula.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.12

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.39. *Eucalyptus tetrodonta* (Darwin stringybark) predominates, forming a distinct but discontinuous sparse canopy (17-26m tall). *Corymbia nesophila* (Melville Island bloodwood) and *C. clarksoniana* (Clarkson's bloodwood) may be subdominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) may occur just below the canopy, occasionally forming a mid-dense layer. sub-canopy trees (4-15m tall) are sometimes present. A sparse low shrub layer (0.5-2m tall) composed of young trees and shrubby regrowth is often present. The ground layer can be very sparse to mid-dense and is dominated by grasses. The primary species in this layer are *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panics), *Alloteropsis semialata* (cockatoo grass) and *Thaumastochloa* spp. Occurs on undulating rises on deep sandy soils. Not a Wetland. (BVG1M: 14a).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia nesophila* +/- *C. clarksoniana* woodland on undulating rises

**Supplementary descriptions:** Neldner and Clarkson (in prep), 104

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.12: South of the bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.13

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.42. *Melaleuca viridiflora* (broad-leaved paperbark) dominates the sparse canopy (10-18m tall). *Eucalyptus tetrodonta* (Darwin stringybark), *Asteromyrtus brassii* and *M. stenostachya* (fibre-barked teatree) are subdominant in the canopy. Scattered *Banksia dentata* (tropical banksia), *M. stenostachya* and *Neofabricia myrtifolia* (yellow teatree) are present as sub-canopy trees (4-6m tall). A sparse shrub layer (0.5-1.5m tall) is present, with *Hibbertia* spp., *Acacia flavescens* (powder puff wattle), *M. viridiflora* and *Asteromyrtus lysicephala* (back to front bush) occurring at the highest densities. The ground layer is sparse, and dominated by the graminoids, *Schoenus sparteus*, *Dianella pavopennacea* var. *major* and *Lomandra* spp. Occurs on flat sandplains. Not a Wetland. (BVG1M: 21a).

**Short description:** *Melaleuca viridiflora* and *Asteromyrtus brassii* woodland on flat sand plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 108

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.13: South of the Lockhart River.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.5.14

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.41. Low open woodland to low woodland of *Melaleuca viridiflora* (broad-leaved teatree) +/- *M. stenostachya* (fibre-barked teatree) +/- emergent *Corymbia clarksoniana* (Clarkson's bloodwood). A sparse to very sparse low tree layer is usually present and may include *Petalostigma* spp. and *Melaleuca* spp. Similar species are also common in the very sparse shrub layer. Occurs on depositional plains. Not a Wetland. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

3.5.14a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.41. *Melaleuca viridiflora* (broad-leaved teatree) dominates the very sparse canopy (5-12m tall). Scattered emergent trees of *Corymbia clarksoniana* (Clarkson's bloodwood) (7-14m tall) are frequently present. Other *Corymbia* spp. and *Eucalyptus* spp. occur occasionally as emergent trees, with *C. polycarpa* (long-fruited bloodwood) replacing *C. clarksoniana* on the Mitchell fan. A sparse to very sparse low tree layer (2-8m tall) dominated by *Petalostigma banksii* (smooth-leaved quinine) is usually present. A very sparse shrub layer (usually <0.5m) dominated by *M. viridiflora* and *P. banksii* juveniles is present at most sites. The ground layer is sparse to mid-dense and dominated by grasses. *Schizachyrium fragile* (firegrass), *Sarga plumosum* (plume sorghum), *Eriachne* spp. (wanderrie grasses) and *Eremochloa bimaculata* (poverty grass) are the common dominants in this layer. Occurs on scattered depositional plains. Not a Wetland. (BVG1M: 21a).

3.5.14b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.41. *Melaleuca viridiflora* (broad-leaved teatree) dominates a very sparse canopy. Scattered emergent *Corymbia clarksoniana* (Clarkson's bloodwood) may present. *Melaleuca stenostachya* (fibre-barked teatree) may be codominant in places. Other *Corymbia* spp. or *Eucalyptus* spp. occur very occasionally as emergent trees. A very sparse sub-canopy tree layer is present at most sites with *Melaleuca viridiflora* or *M. foliolosa* (scale-leaved teatree) or *M. stenostachya* and *Petalostigma pubescens* (quinine) occurring at the greatest densities. A very sparse shrub layer dominated by *M. viridiflora* juveniles may be present. The ground layer is sparse to mid-dense and dominated by grasses. *Schizachyrium* spp. (fire grass), *Aristida* spp. (three-awned spear grasses), *Eriachne* spp. (wanderrie grasses) and *Eremochloa bimaculata* (poverty grass) and *Sarga plumosum* (plume sorghum) are common dominant species in this layer. Occurs on plains. Not a Wetland. (BVG1M: 21a).

3.5.14c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.41. *Melaleuca viridiflora* (broad-leaved teatree) dominates the sparse canopy. Emergent trees of *Corymbia clarksoniana* (Clarkson's bloodwood) are sometimes present. Scattered low trees such as *Acacia* spp. (wattles), *Asteromyrtus symphyocarpa* (liniment tree) and *Banksia dentata* (tropical banksia) may be present and a very sparse layer of shrubs may sometimes be present. The ground layer is sparse to dense and dominated by graminoids. *Schizachyrium* spp. (fire grass), *Scleria* spp. (milk drop sedge), *Fimbristylis* spp., *Eremochloa bimaculata* (poverty grass), *Aristida dominii* (three-awned speargrass) and *Schoenus sparteus* are some of the frequent species in this layer. Occurs on plains and rises. Not a Wetland. (BVG1M: 21a).

**Short description:** *Melaleuca viridiflora* +/- *Acacia* spp. +/- *Asteromyrtus symphyocarpa* low woodland on scattered coastal sand plains

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.14: Widespread across the Peninsula.  
3.5.14a: Central and northern Peninsula.  
3.5.14b: Extensive in subregion 6.  
3.5.14c: Southern extent of the bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.5.15

**Description:** Low woodland or tall shrubland (7-10m) of *Melaleuca viridiflora* (broad-leaved paperbark) often with a range of codominant to subdominant species including *Asteromyrtus symphyocarpa* and *Corymbia* spp. Can occur as a sedgeland with scattered *M. viridiflora* and *A. symphyocarpa* emergent shrubs. Occurs on residual sandy plains. Contains Palustrine. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

3.5.15a: Low woodland or tall shrubland of *Melaleuca viridiflora* (broad-leaved paperbark) often with codominant *M. saligna*, *Asteromyrtus symphyocarpa* or *Corymbia stockeri* (gum-topped bloodwood), *C. nesophila* (Melville Island bloodwood) and *C. clarksoniana* (Clarkson's bloodwood) +/- *Parinari nonda* (nonda plum) +/- *Livistona muelleri*. The *Corymbia* spp. sometimes occur as emergents. The shrub layer typically contains canopy species and *A. brassii* +/- *Styphelia ruscifolia* +/- *Xylomelum scottianum* +/- *Acacia* spp. +/- *Banksia dentata* (tropical banksia). The ground cover is generally *Themeda* spp. (well-drained soils) to sedges (poorly drained soil) with *Eriachne trisetata*, *Schoenus sparteus* and *Heteropogon triticeus* (giant speargrass) also consistently present graminoids. Occurs on residual sands on Torres Strait Islands. Not a Wetland. (BVG1M: 21a).

3.5.15b: *Dapsilanthus spathaceus* open sedgeland. Scattered emergent shrubs of *Melaleuca viridiflora* (broad-leaved paperbark) and *Asteromyrtus symphyocarpa* +/- *A. brassii* +/- *Banksia dentata* (tropical banksia) +/- *Pandanus* spp. usually occur, and in some instances form an open shrubland. Occurs on residual sandplains. Contains Palustrine. (BVG1M: 34f).

**Short description:** *Melaleuca viridiflora* and *Asteromyrtus symphyocarpa* low woodland on residual sandy plains

**Supplementary descriptions:**

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Contains Palustrine

**Special values:**

**Comments:** 3.5.15: The variant, vegetation unit 145A, occurs on the sandy depositional plains near the Kennedy River on Lakefield National Park. *M. viridiflora* dominates the low woodland (8-12m tall), with *Grevillea glauca*, *Erythrophleum chlorostachys* and *Petalostigma pubescens* also frequent in the canopy. *Corymbia clarksoniana* was the most frequent emergent tree (12-18m tall). The sparse sub canopy tree (3-8m tall) and shrub (0.5-2m tall) layers were dominated by *Asteromyrtus symphyocarpa*, and contained some species such as *Calycopeplus casuarinoides* and *Neofabricia mjoebergii*, which are not normally present in 3.5.15. The ground layer is mid-dense and contains a variety of herb species. It is dominated by *Schizachyrium* spp., *Thaumastochloa* spp., *Panicum* spp. and *Fimbristylis* spp. A number of ephemeral forbs were recorded. Torres Strait islands and south of Cape Melville.  
3.5.15a: *C. stockeri* is likely to be *C. stockeri* subsp. *peninsularis*. Torres Strait islands.  
3.5.15b: Occurs in mosaic patches with 3.5.15a on Torres Strait Islands. Moa Island, Torres Strait.

**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 3.5.16

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.42. *Melaleuca viridiflora*, (broad-leaved teatree) together with *Neofabricia myrtifolia* (yellow teatree), *Allocasuarina littoralis* (black sheoak), *Asteromyrtus brassii* and sometimes *Acacia brassii* (Brass's wattle) dominate the sparse canopy (4-12m tall). *Corymbia nesophila* (Melville Island bloodwood) and less frequently *Eucalyptus tetradonta* (Darwin stringybark) are present as emergent trees (9-16m tall). The same species dominate the sparse low tree layer (2-5m tall). A sparse shrub layer (0.5-3m tall) is present, with *Acacia calyculata*, *Persoonia falcata* (geebung), *Hibbertia banksii* forma *banksii*, *Melaleuca viridiflora*, *Asteromyrtus lysicephala* (back to front bush) and *Choriceras tricornis* (Cape Choriceras) occurring at the highest densities. The ground layer is sparse, and frequently dominated by *Xanthorrhoea johnsonii* (grass tree). Commonly encountered graminoids include *Eriachne* spp. (wanderrie grasses), *Schoenus sparteus* and *Cleistochloa* spp. Occurs on colluvial areas, adjacent to granitic ranges. Not a Wetland. (BVG1M: 21a).

**Short description:** *Melaleuca viridiflora* +/- *Neofabricia myrtifolia* low woodland on colluvial areas

**Supplementary descriptions:** Neldner and Clarkson (in prep), 146

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.16: West of Lockhart River.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.17

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.40. Low to low open woodland of *Melaleuca stenostachya* (fibre-barked teatree) +/- *M. viridiflora* (broad-leaved teatree) +/- *M. citrolens* (scrub teatree). Occasional emergent *Corymbia* spp. (bloodwoods) are present. A very sparse layer of low trees and shrubs is sometimes present. Occurs on flat plains. Not a Wetland. (BVG1M: 21b).

Vegetation communities in this regional ecosystem include:

3.5.17a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.40. *Melaleuca stenostachya* (fibre-barked teatree) dominates the sparse canopy (7-9m tall) with *M. viridiflora* (broad-leaved teatree) codominant. Scattered trees are often present. Occasional emergent *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) (12-13m tall) are present. A very sparse layer of low trees occurs occasionally. *Acacia brassii* (Brass' wattle) and *Neofabricia myrtifolia* (yellow teatree) are sometimes present in this layer. A sparse shrub layer (0.5-1m tall) is sometimes present. The ground layer is sparse to mid-dense and dominated by *Arundinella setosa* (reed grass) and *Schoenus sparteus*. Occurs on flat plains. Not a Wetland. (BVG1M: 21b).

3.5.17b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.40. *Melaleuca stenostachya* (fibre-barked teatree) trees dominate the sparse canopy. *M. viridiflora* (broad-leaved teatree) is a frequent canopy tree and may be dominant in some areas. *M. citrolens* (scrub teatree) may also dominate in some areas. Scattered emergent *Corymbia stockeri* (gum-topped bloodwood) may be present. A sparse sub-canopy tree layer dominated by *Petalostigma banksii* (smooth-leaved quinine) may be present in some areas. A sparse shrub layer of scattered shrubs of the canopy layer species may occasionally occur. The ground layer is dominated by the grasses *Arundinella setosa* (reed grass) and *Eriachne pallescens* (wanderrie grass) or *Aristida* spp. (three-awned speargrass) and other graminoids. Occurs on pediments and older higher alluvial terraces. Not a Wetland. (BVG1M: 21b).

**Short description:** *Melaleuca stenostachya* low open woodland on flat plains

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.17: Torres Strait islands and eastern Lakefield NP.  
3.5.17a: Torres Strait islands and eastern Lakefield NP.  
3.5.17b: Southern extent of the bioregion.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.5.18

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.40. *Melaleuca viridiflora* (broad-leaved paperbark), frequently together with *M. stenostachya* (fibre-barked teatree), dominates the very sparse to sparse canopy (8-14m tall). A very sparse sub-canopy tree layer (4-8m tall) is usually present, and dominated by *Petalostigma banksii* (smooth-leaved quinine), *M. foliolosa* (scale-leaved teatree) and *M. stenostachya*. Scattered shrubs (0.5-2.5m tall) consisting mainly of the same species plus *Croton arnhemicus* and *M. viridiflora* are sometimes present. *Xanthorrhoea johnsonii* (grass-tree) dominates in some areas. The ground layer is sparse to mid-dense and dominated by *Sarga plumosum* (plume sorghum), *Alloteropsis semialata*, *Arundinella setosa* and *Eremochloa bimaculata*. Occurs on flat plains. Not a Wetland. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

3.5.18x2: [RE not in use]<sup>2</sup>: This vegetation community is not mapped. *Vachellia ditricha* (fish poison tree) dominates the sparse canopy. Scattered emergent *Eucalyptus* spp. or *Corymbia* spp. are often present. Widely scattered shrubs (0.5-2m tall) are common with *A. ditricha* the most frequently encountered. The mid-dense to dense ground layer is usually dominated by the grasses *Themeda arguens*, *Digitaria* spp. and *Sarga plumosum* (plume sorghum). Occurs on erosional plains. Not a Wetland. (BVG1M: 27c).

**Short description:** *Melaleuca viridiflora* and *M. stenostachya* low open woodland on flat plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 157

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.18: Especially in the Lakefield area.  
3.5.18x2: Widely scattered patches.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.5.19

**Description:** Mixed dwarf heath to shrubland (depending on time-since-fire) usually with *Asteromyrtus lysicephala* (back to front bush). Common heath species include *Neofabricia myrtifolia* (yellow teatree), *Choriceras tricornis* (Cape choriceras), *Jacksonia thesioides* (broombush), *Thryptomene oligandra*, *Banksia dentata*, *Grevillea* spp. and *Allocasuarina littoralis* (black sheoak). After recent fire the community is a dwarf to low heath or shrubland, usually with rapidly growing species such as *Grevillea pteridifolia* (golden Grevillea), *A. littoralis*, *G. glauca* and *Melaleuca viridiflora* and fire resilient *B. dentata* (tropical Banksia) in a distinct emergent layer. With increasing time-since-fire this community becomes a dense tall heath or shrubland and is at its most floristically diverse, with *Hibbertia* spp., *Boronia alulata*, *Leucopogon* spp. and *Neoroepora banksii* also common. The ground layer is sparse with a variety of sedge species such as *Schoenus sparteus*, *Arthrostylis aphylla* or *Baloskion tetraphyllum* frequent. Occurs on sand sheets as well as deep sand deposits on sandstone plateaus. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.5.19x1: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.5.19. *Asteromyrtus lysicephala* (back to front bush), *Neofabricia myrtifolia* (yellow teatree), *Choriceras tricornis* and *Jacksonia thesioides* occur consistently at high stem densities in the shrub layer (0.5-3m tall). A variety of other shrubs may be present and locally abundant. Scattered emergent shrubs and trees (1.5-10m tall) are frequently present, with *Allocasuarina littoralis* (black sheoak) and *Grevillea pteridifolia* (toothbrush grevillea) occurring at consistently high densities. A sparse, low shrub layer (0.5-1.8m tall) is often present. The ground layer is short and open, with *Schoenus sparteus* the most consistent and abundant graminoid. Occurs on sandsheets. Not a Wetland. (BVG1M: 29a).

3.5.19x2: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.5.42. *Asteromyrtus brassii*, *Neofabricia myrtifolia* (yellow teatree) and *Allocasuarina littoralis* (black sheoak) usually dominate the fairly even, mid-dense canopy (6-10m tall). Multi-stemmed *Welchiodendron longivalve* (yellow box-penda) trees are also frequently conspicuous in the canopy. A sparse sub-canopy layer (2-6m tall) is frequently dominated by

*Dodonaea polyandra* (native hop-bush) and *A. littoralis*, while a sparse to mid-dense shrub layer (0.5-1.5m tall) dominated by *Alyxia spicata*, *D. polyandra*, *Choriceras tricornis* or *Exocarpos latifolius* species is usually present. The ground layer is very sparse with *Schoenus sparteus*, *Cleistochloa* spp., *Lomandra* spp., *Alloteropsis semialata*, *Eulalia mackinlayi* and *Gahnia aspera* being the most frequent species. Occurs on sandsheets. Not a Wetland. (BVG1M: 28c).

3.5.19x3: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.53b. *Neofabricia myrtifolia* (yellow teatree) and *Asteromyrtus brassii* dominate the sparse to mid-dense canopy (7-17m tall). *Acacia crassicaarpa* (spoon tree), *Allocasuarina littoralis* (black sheoak) and *Lophostemon suaveolens* (swamp mahogany) also occur at high densities in the canopy. *Callitris intratropica* (cypress pine) may form part of the canopy but more frequently is an emergent tree (9-20m tall). The mid-dense sub-canopy layer (2-6m tall) is dominated by *Leucopogon yorkensis*. This species is also frequent in the very sparse to sparse shrub layer (0.5-2m tall), together with *Alyxia spicata*, *Asteromyrtus brassii* and *Styphelia ruscifolia*. Epiphytic orchids and ant plants are frequent on the trunks of the trees and shrubs. The ground layer is very sparse and dominated by the graminoids, *Cleistochloa* spp., *Schoenus sparteus* and *Arthrostylis aphylla*. Occurs on sandplains. Not a Wetland. (BVG1M: 28c).

3.5.19x4: [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. *Asteromyrtus lysicephala* (back to front bush) generally dominates the sparse shrub layer (0.5-2m tall), however, *Melaleuca arcana* (Cape York paperbark) and *Gahnia sieberiana* (saw sedge) occur at greater stem densities at some sites. *Baeckea frutescens* (weeping baeckea), *M. viridiflora* (broad-leaved paperbark) and *Neofabricia myrtifolia* (yellow teatree) occur at relatively high densities at most sites. Scattered emergent low trees and shrubs (2-6m tall) are generally present, with *N. myrtifolia*, *M. viridiflora* and *Thryptomene oligandra* occurring at the greatest densities. Low shrubs (0.5-1m tall) are frequent, but do not form a conspicuous layer. The ground layer is sparse and dominated by graminoids. *Schoenus sparteus*, *Baloskion tetraphyllum* subsp. *meiostachyum* and *Dapsilanthus spathaceus* dominate the ground layer in some areas. Occurs on sandy plateaus and, in places, on lateritised profiles. Not a Wetland. (BVG1M: 28c).

3.5.19x5: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.2.17. *Leucopogon yorkensis* shrubs dominate a mid-dense tall shrub layer (2-10m tall). Frequently, this layer provides the majority of the above ground biomass at the site. *Thryptomene oligandra*, *Acacia crassicaarpa* (spoon tree), *Neofabricia myrtifolia* (yellow teatree), *Callitris intratropica* (cypress pine), *Psyrax* spp., *Asteromyrtus angustifolia* and *A. brassii* may form part of this layer, but more frequently are emergent trees reaching up to 15m tall. In places, these trees may form a mid-dense canopy and dominate the biomass at the site. Frequently, the trees and shrubs are covered in epiphytic orchids. A sparse to mid-dense, low shrub layer (0.5-3m tall) is present, with *Neoroepa banksii*, *Styphelia ruscifolia* and *Myrsine variabilis* occurring at the highest densities. The ground layer is very sparse. Occurs on sandplains. Not a Wetland. (BVG1M: 3a).

3.5.19x6: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.5.19. *Neofabricia myrtifolia*, together with *Boronia alulata*, *Neoroepa banksii*, *Jacksonia thesioides*, *Acacia calyculata*, *Styphelia ruscifolia*, *Asteromyrtus lysicephala* and *Hibbertia banksii* forma *banksii*, occur consistently at high densities and form a sparse to closed canopy (1.5-4m tall). Scattered emergent shrubs (3-5m tall) are often present, with *Grevillea pteridifolia* and *Allocasuarina littoralis* the most frequent species. A low shrub layer (0.5-1.5m tall) may be present and consists of smaller shrubs of the same species that occur in the canopy layer. *Gompholobium nitidum* is more frequent in this low shrub layer. The ground layer is usually very sparse (<10% PFC) and consists mainly of graminoids, of which *Schoenus sparteus* and *Arthrostylis aphylla* occur most frequently. There are scattered open patches where shrubs are absent. Occurs on remnant Tertiary sandsheets behind dunes. Not a Wetland. (BVG1M: 29a).

3.5.19x7: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.53a. *Asteromyrtus lysicephala*, *Choriceras tricornis* and *Jacksonia thesioides* occur consistently at high stem densities in the sparse to mid-dense shrub layer (0.5-4m tall). A variety of other shrubs may be present and locally abundant. Scattered emergent trees (5-10m tall) are frequently present, with *Melaleuca viridiflora*, *Allocasuarina littoralis* and *Banksia dentata* occurring at high densities. A very sparse, emergent shrub layer (2-6m tall) is sometimes present. A sparse, low shrub layer (0.5-1m tall) is often present, and dominated by *Asteromyrtus lysicephala*. The ground layer is short and sparse, with *Schoenus sparteus* the most consistent and abundant graminoid. Occurs adjacent to stream lines on sandplains. Not a Wetland. (BVG1M: 29a).

3.5.19x8: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.5.19. *Asteromyrtus lysicephala* (back to front bush), *Neofabricia myrtifolia* (yellow teatree), *Thryptomene oligandra* (thryptomene), *Hibbertia banksii* forma *banksii* and *Jacksonia thesioides* consistently occur at high densities and dominate the sparse to mid-dense canopy (0.5-2m tall). *Acacia* spp. (wattles) and *Banksia dentata* (swamp banksia) are often present as emergent shrubs (2-3m tall). The ground layer is very sparse and dominated by sedges. *Baloskion tetraphyllum* subsp. *meiostachyum* the most commonly encountered graminoid in this layer. Occurs on the extensive sandplains. Not a Wetland. (BVG1M: 29a).

<b>Short description:</b>	Asteromyrtus lysicephala and/or Neofabricia myrtifolia and/or Jacksonia thesioides open heath to shrubland on sand sheets
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 169, 171, 172-5, 176-5.
<b>Subregions:</b>	4, 1, (5), (7), (2)
<b>Protected areas:</b>	Apudthama NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Jardine River NP, KULLA (McIlwraith Range) NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.5.19: Potential habitat for NCA listed species: Dendrobium bigibbum, Psydrax reticulata.
<b>Comments:</b>	3.5.19: Proposed new REs 3.5.19x1, 3.5.19x6, 3.5.19x8 were amalgamated in to this RE. Heath formation differentiates this from RE 3.5.42 which is a low woodland to open forest. From Coen to the McHenry Uplands. Also occurs just north of Hopevale. 3.5.19x1: Heathlands. 3.5.19x2: McHenry Uplands and Jardine River catchment. 3.5.19x3: Heathlands. 3.5.19x4: Callitris intratropica emergents and Leucopogon sp. shrubs are more frequent on the lowlands than on the McHenry plateau. Northern part of bioregion. 3.5.19x5: Shelburne Bay. 3.5.19x6: Shelburne Bay. 3.5.19x7: McHenry Uplands and Richardson Uplands. 3.5.19x8: Shelburne Bay.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 190000 ha; Remnant 2021 189000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

## Regional ecosystem 3.5.20

**Description:** Simple evergreen notophyll vine forest. Common dominant species are Argirodendron polyandrum (brown tulip oak), Blepharocarya involucrigera (rose butternut), Chionanthus ramiflorus (native olive), Alstonia scholaris (milky pine) and Canarium australianum (mango bark). Eucalyptus pellita (red mahogany) and in places Syzygium forte form a conspicuous emergent layer. A tall open shrublayer contains a range of shrubs with frequent species including Aglaia elaeagnoides (droopy leaf), Coelospermum paniculatum (Boorum), Cordyline spp., Memecylon pauciflorum and Trema tomentosa (poison peach). Scattered slender vines such as Pararistolochia delatantha and robust woody lianas such as Austrosteenisia blackii occur frequently. A very sparse ground layer is composed of tree seedlings. Occurs on deep sands on the sandstone plateaus on wetter gentle slopes and rises. Not a Wetland. (BVG1M: 9d).

<b>Short description:</b>	Simple evergreen notophyll vine forest with Eucalyptus pellita on deep sands on sandstone plateaus
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 27, 27-5
<b>Subregions:</b>	5
<b>Protected areas:</b>	Muundhi (Jack River) NP (CYPAL), Biniirr NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.5.20: High diversity of vascular plants, many with restricted distributions. Probable mixed forest ecosystem produced by irregular fires or cyclonic damage. With fire the rainforest elements may disappear.
<b>Comments:</b>	3.5.20: Restricted to the Battlecamp Range.
<b>Estimated extent:</b> <sup>1</sup>	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 3.5.21

**Description:** *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the mid-dense canopy. *C. intermedia* (pink bloodwood) dominated at sites where *C. clarksoniana* was absent. *C. tessellaris* (Moreton Bay ash) is a consistent subdominant of the canopy. *Acacia polystachya* (a wattle) is also frequently subdominant. The very sparse to mid-dense sub-canopy tree layer is dominated by *Acacia flavescens* (powderpuff wattle), *A. polystachya*, *A. crassicaarpa* (spoon tree) and *Mallotus nesophilus*. The shrub layer varies from very sparse to dense. *Antidesma ghaesembilla* (black currant), *Flueggea virosa* subsp. *melanthesoides* (white currant) and *Planchonia careya* (cocky apple) are the most frequent dominant species. This layer may be dense in places and dominated by pioneer closed forest species. The ground layer varies from very sparse to dense. Common dominant species include *Imperata cylindrica* (blady grass), *Panicum trichoides* and *Flemingia parviflora* (Flemingia). Occurs on coastal plains. Not a Wetland. (BVG1M: 9c).

Vegetation communities in this regional ecosystem include:

3.5.21x1: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.5.21. *Corymbia tessellaris* (Moreton Bay ash) dominates the sparse to mid-dense canopy (7-26m tall), usually with *C. clarksoniana* (Clarkson's bloodwood) codominant. *Acacia crassicaarpa* (spoon tree), *Lophostemon suaveolens* (swamp mahogany) and other *Eucalyptus* spp. or *Corymbia* spp. may be present as subdominant trees. A very sparse to mid-dense sub-canopy tree layer (3-15m tall) is dominated by *Acacia flavescens* (powderpuff wattle), *A. crassicaarpa*, *C. tessellaris* and *Parinari nonda* (nonda). At some sites either *Melaleuca viridiflora* (broad-leaved teatree) or *M. dealbata* (silver-leaved paperbark) forms a conspicuous sub-canopy layer. The shrub layer (0.5-5m tall) varies from very sparse to sparse. *Antidesma ghaesembilla* (black currant), *Flueggea virosa* subsp. *melanthesoides* (white currant), *Canarium australianum* (scrub turpentine) and *Acacia leptocarpa* (wattle) are the most commonly encountered species in this layer. The ground layer is very sparse to dense, with *Imperata cylindrica* (blady grass), *Heteropogon triticeus* (giant speargrass), *Scleria* spp. and *Mnesithea rottboellioides* (northern cane grass) frequent dominant species. Occurs on coastal plains. Not a Wetland. (BVG1M: 9c).

<b>Short description:</b>	<i>Corymbia clarksoniana</i> +/- <i>C. tessellaris</i> open forest on coastal ranges and lowlands
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 37-5, 44-5.
<b>Subregions:</b>	1, 2, (5), (6), (9), (7.9)
<b>Protected areas:</b>	Cape Melville NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Ngalba-bulal NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	3.5.21: Proposed new RE 3.5.21x1 was amalgamated in to this RE. On east coast from Cooktown up to Lockhart River. 3.5.21x1: Lockhart River Shelburne Bay.
<b>Estimated extent:</b> <sup>1</sup>	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 3.5.22

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as part of either 3.3.20 or 3.5.41. Woodland to (occasionally) open forest of *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) and *C. dallachiana* (Dallachy's gum). *Melaleuca nervosa* (woodland paperbark) is a consistent sub-canopy tree but a number of other species are often present in this layer. There is also a sparse to very sparse shrub layer. Occurs on undulating rises and plains. Not a Wetland. (BVG1M: 9e).

Vegetation communities in this regional ecosystem include:

3.5.22a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.41. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) is a frequent subdominant tree. *Eucalyptus tetrodonta* (Darwin stringybark), *E. leptophleba* (Molloy red box) and *E. chlorophylla* (shiny-leaved box) are also sometimes present as subdominant trees. The sub-canopy is dominated by *Melaleuca viridiflora* (broad-leaved teatree) and often includes *M. nervosa* (woodland paperbark) and *Grevillea glauca* (bushman's clothes peg). The very sparse to sparse shrub layer is dominated by *M. viridiflora*, *M. nervosa*, *C. clarksoniana*, *Acacia leptocarpa* (a wattle) and *Alphitonia pomaderroides* (soapwood). The ground layer is sparse to mid-dense. *Sarga plumosum* (plume sorghum), *Themeda triandra* (kangaroo grass), *Eriachne trisetata* (wanderrie grass) and *Heteropogon triticeus* (giant speargrass) are the primary grasses. Occurs on undulating rises and plains. Not a Wetland. (BVG1M: 9e).

3.5.22b: [RE not in use]<sup>2</sup>: This vegetation community is not mapped. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse to mid-dense canopy. *Corymbia dallachiana* (Dallachy's gum) and *Erythrophleum chlorostachys* (Cooktown ironwood) are frequent subdominant trees. *Lophostemon suaveolens* (swamp mahogany) and *Melaleuca dealbata* (silver-leaved paperbark) are also sometimes present. *M. nervosa* (woodland paperbark) is a consistent sub-canopy tree but a number of other species are often present in this layer. The sparse shrub layer is composed of a variety of species particularly *E. chlorostachys* and *Alphitonia pomaderroides* (soapwood). The ground layer is sparse to dense and dominated by the grasses *Heteropogon triticeus* (giant speargrass), *H. contortus* (black speargrass), *Themeda triandra* (kangaroo grass) and *Panicum* spp. (native panic). Occurs on undulating rises and plains. Not a Wetland. (BVG1M: 9e).

3.5.22c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.3.20. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy. In the northern areas, this species is replaced by another bloodwood, *C. novoguineensis*. *Lophostemon suaveolens* (swamp mahogany), *Parinari nonda* (nonda) and less frequently *Erythrophleum chlorostachys* (Cooktown ironwood) are subdominant trees. The sparse sub-canopy is most frequently dominated by *Melaleuca viridiflora* (broad-leaved teatree). *Livistona muelleri* (dwarf fan palm) and *Alphitonia pomaderroides* (soapwood) are also common components of this layer. *Antidesma ghaesembilla* (black currant) and *Flueggea virosa* subsp. *melanthesoides* (white currant) are characteristic species of the sparse shrub layer. The ground layer is sparse to dense and dominated by *Fimbristylis* sp., *Heteropogon triticeus* (giant speargrass), *Aristida* sp. (three-awned speargrass) and *Ischaemum* spp. Occurs on undulating rises and plains. Not a Wetland. (BVG1M: 9e).

3.5.22d: [RE not in use]<sup>2</sup>: This vegetation community is not mapped. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy. *C. dallachiana* (Dallachy's gum) is usually present as a subdominant canopy tree. *Melaleuca nervosa* (woodland paperbark) occasionally occurs in the canopy but is more common as a sub-canopy tree. Other common sub-canopy trees are *Ptilostigma malabaricum* (bauhinia), *C. clarksoniana* and *Planchonia careya* (cocky apple). *Antidesma ghaesembilla* (black currant) and *C. clarksoniana* with *Azanza thespesioides* consistently forms a sparse shrub layer. The ground layer is sparse and dominated by *Ischaemum* spp., *Eragrostis* spp. (love grass), *Arundinella setosa* (reed grass) and *Fimbristylis* spp. Occurs on undulating rises and plains. Not a Wetland. (BVG1M: 9e).

3.5.22x1: [RE not in use]<sup>2</sup>: This proposed new RE is now mapped as 3.5.41. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) is a frequent subdominant tree. *Eucalyptus tetrodonta* (Darwin stringybark) is present but at lower stem densities. The sparse sub-canopy is dominated by *Erythrophleum chlorostachys* and *Melaleuca nervosa* (woodland paperbark). A number of other species are frequently present. The sparse shrub layer is composed of a variety of species which includes *Alphitonia pomaderroides* (soapwood), *Erythrophleum chlorostachys*, *Indigofera pratensis* (forest indigo) and *M. nervosa*. The ground layer is mid-dense to dense. *Schizachyrium fragile* (fire grass), *Sarga plumosum* (plume sorghum), *Heteropogon triticeus* (giant speargrass), *Themeda arguens* and *Panicum* spp. (native panic) are the dominant grasses. Occurs on alluvial plains. Not a Wetland. (BVG1M: 9e).

3.5.22x2: [RE not in use]<sup>2</sup>: This proposed new RE is now mapped as 3.5.41. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the canopy layer which can vary greatly in height and foliage projective cover. Other *Eucalyptus* spp. may sometimes be present in the canopy. A very sparse, sub-canopy tree layer dominated by *Melaleuca viridiflora* (broad-leaved teatree) is usually present. Scattered low shrubs are often present but do not form a conspicuous layer. The ground layer is very sparse to mid-dense and dominated by the grasses *Schizachyrium* spp. (fire grass), *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Eriachne* spp. (wanderrie grass) and *Pseudopogonatherum* spp. Occurs on erosional plains. Not a Wetland. (BVG1M: 9e).

<b>Short description:</b>	Corymbia clarksoniana +/- Erythrophleum chlorostachys +/- Corymbia spp. woodland on plains
<b>Supplementary descriptions:</b>	
<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>	<p>3.5.22: Normanby and Kennedy Rivers and western Cape York Peninsula. The naturalised exotic forbs Mesosphaerum suaveolens (hyptis) and Crotalaria goreensis (Gambia pea) can dominate the ground layer.</p> <p>3.5.22a: Normanby and Kennedy Rivers.</p> <p>3.5.22b: Normanby and Kennedy Rivers. The naturalised exotic forbs Mesosphaerum suaveolens * (hyptis) and Crotalaria goreensis * (Gambia pea) can dominate the ground layer.</p> <p>3.5.22c: Normanby and Kennedy Rivers.</p> <p>3.5.22d: Normanby and Kennedy Rivers.</p> <p>3.5.22x1: Western Cape York Peninsula.</p> <p>3.5.22x2: Eucalyptus platyphylla dominates in some low-lying areas but such areas are very limited in extent. This regional ecosystem was originally listed in Sattler &amp; Williams (1999) as 3.9.3 but has been moved to 3.5.22x2 after re-assessment. western Cape York Peninsula.</p>
<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>	

### Regional ecosystem 3.5.23

<b>Description:</b>	[RE not in use] <sup>2</sup> : This regional ecosystem is now mapped as 3.5.36a. Corymbia nesophila (Melville Island bloodwood) dominates the sparse canopy. E. crebra (narrow-leaved ironbark) is often present as a subdominant canopy tree. A number of other Eucalyptus spp. or Corymbia spp. may form minor components of the canopy. E. brassiana (Cape York red gum) occurs as a codominant canopy species at a number of sites. The very sparse sub-canopy tree layer is dominated by C. nesophila (Melville Island bloodwood), Acacia flavescens (powder puff wattle), Lophostemon suaveolens (swamp mahogany) and Grevillea glauca (bushman's clothes peg). The shrub layer is very sparse. A. flavescens, Erythrophleum chlorostachys (Cooktown ironwood), C. nesophila and Persoonia falcata (geebung) are the most frequently encountered species. The ground layer varies from sparse to sparse to mid-dense. The dominant grasses are Themeda triandra (kangaroo grass), Eriachne pallescens (wanderrie grass), Aristida spp. (three-awned speargrass) and Heteropogon triticeus (giant speargrass). Common forbs include Spermacoce spp., Cyathillium cinereum and Flemingia parviflora (flemingia). Occurs on coastal plains. Not a Wetland. (BVG1M: 14c).
<b>Short description:</b>	Corymbia nesophila +/- Eucalyptus crebra +/- E. brassiana woodland on plains
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 82-5
<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>	3.5.23: South-east of bioregion.
<b>Estimated extent:</b> <sup>1</sup>	
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	Under review



## Regional ecosystem 3.5.24

**Description:** *Eucalyptus chlorophylla* (shiny-leaved box) dominates the sparse canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) and *Corymbia clarksoniana* (Clarkson's bloodwood) often occur as part of the canopy. A very sparse sub-canopy layer is sometimes present. Occasional shrubs of *Flueggea virosa* subsp. *melanthesoides* (white currant), *E. chlorostachys* and *Grewia savannicola* (dog's balls) form a diffuse layer. The ground layer is sparse to dense and dominated by a variety of graminoids. *Themeda triandra* (kangaroo grass), *T. arguens*, *Sarga plumosum* (plume sorghum), *Heteropogon contortus* (black speargrass) and *H. triticeus* (giant speargrass) are frequent dominant grasses. Occurs on undulating plains. Not a Wetland. (BVG1M: 18c).

Vegetation communities in this regional ecosystem include:

3.5.24a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.40. *Eucalyptus chlorophylla* (shiny-leaved box) dominates the very sparse to sparse canopy. Other *Eucalyptus* spp. are occasionally present in the canopy. Scattered *Hakea persiehana* (bootlace oak), *Melaleuca viridiflora* (broad-leaved teatree) and *Erythrophleum chlorostachys* (Cooktown ironwood) are sometimes present as sub-canopy trees. A shrub layer is rarely formed but scattered *Dolichandrone alternifolia* (lemonwood), *Grewia savannicola* (dog's balls) and *Melaleuca viridiflora* shrubs may be present. The ground layer is sparse to dense and dominated by the grasses *Heteropogon contortus* (black speargrass), *Sarga plumosum* (plume sorghum), *Themeda arguens*, *T. triandra* (kangaroo grass) and *Dichanthium sericeum* subsp. *sericeum* (Queensland bluegrass). Occurs on undulating plains. Not a Wetland. (BVG1M: 18c).

3.5.24b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.24. *Eucalyptus chlorophylla* (shiny-leaved box) dominates the sparse canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) and *Corymbia clarksoniana* (Clarkson's bloodwood) often occur as part of the canopy. A very sparse sub-canopy layer is sometimes present. Occasional shrubs of *Flueggea virosa* subsp. *melanthesoides* (white currant), *E. chlorostachys* and *Grewia savannicola* (dog's balls) form a diffuse layer. The ground layer is sparse to dense and dominated by a variety of graminoids. *Themeda triandra* (kangaroo grass), *T. arguens*, *Sarga plumosum* (plume sorghum), *Heteropogon contortus* (black speargrass) and *H. triticeus* (giant speargrass) are frequent dominant grasses. Occurs on undulating plains and colluvial fans. Not a Wetland. (BVG1M: 18c).

**Short description:** *Eucalyptus chlorophylla* +/- *Corymbia clarksoniana* woodland on erosional plains

**Supplementary descriptions:**

**Subregions:** 6, 2, 5, (9), (7.9)

**Protected areas:** Cape Melville NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Ngalbulal NP (CYPAL), Rinyirru (Lakefield) RR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.24: In the south 3.5.26 can occur within narrow valleys. Occurs in the south-east of the bioregion on the Laura Basin and south of Cooktown.  
3.5.24a: Central bioregion.  
3.5.24b: Mainly in the south-east of the bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.25

**Description:** Woodland to open woodland of *Eucalyptus leptophleba* (Molloy red box) +/- *E. platyphylla* (poplar gum) +/- *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *C. tessellaris* (Moreton Bay ash). Scattered canopy species +/- *Melaleuca viridiflora* (broad-leaved teatree) +/- *Hakea persiehana* occur in the subcanopy and/or shrublayer. The ground layer is mid-dense with *Heteropogon contortus* (black spear grass), *H. triticeus* (giant spear grass), *Mnesithea rottboellioides* (northern cane grass) (northern canegrass) and *Themeda triandra* (kangaroo grass). Occurs on higher older alluvial terraces and old colluvial sediments. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

3.5.25a: [RE not in use]<sup>2</sup>: This vegetation community is not mapped. *Eucalyptus leptophleba* (Molloy red box) dominates the sparse canopy. *Corymbia tessellaris* (Moreton Bay ash) is often subdominant. Scattered *C. clarksoniana* (Clarkson's bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) may also be present in the canopy. A sparse sub-canopy layer is sometimes present and is composed of a variety of species. The generally sparse shrub layer is composed of a mixture of species. *Heteropogon contortus* (black speargrass) is the most commonly encountered grass. It can often dominate the very sparse to dense variable ground layer. Occurs on higher older alluvial terraces and old colluvial sediments. Not a Wetland. (BVG1M: 9b).

3.5.25b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.25. *Eucalyptus leptophleba* (Molloy red box) usually dominates the sparse canopy with *E. platyphylla* (poplar gum) a consistent subdominant canopy tree. Scattered *Corymbia tessellaris* (Moreton Bay ash) are also frequently present in the canopy. The sub-canopy tree layer is very sparse, and composed of a variety of shrubs including *Melaleuca* spp. and *Eucalyptus* spp. The shrub layer is also very sparse with a variety of shrubs occurring. The ground layer is mid-dense with *Heteropogon contortus* (black spear grass), *H. triticeus* (giant spear grass), *Mnesithea rottboellioides* (northern canegrass) and *Themeda triandra* (kangaroo grass). Occurs on higher older alluvial terraces and old colluvial sediments. Not a Wetland. (BVG1M: 9b).

3.5.25c: [RE not in use]<sup>2</sup>: This vegetation community is not mapped. *Eucalyptus leptophleba* (Molloy red box) dominates the very sparse to sparse canopy forming open woodlands or woodlands. *Corymbia dallachiana* (Dallachy's gum) is a frequent codominant tree in the open woodlands while *C. clarksoniana* (Clarkson's bloodwood) is often present in both structural formations. Other tree species are occasionally present in the woodlands. A very sparse sub-canopy tree layer is occasionally present in the open woodlands but more frequently in the woodlands. A very sparse shrub layer is sometimes present in which *Grewia savannicola* (dog's balls) and *Planchonia careya* (cocky apple) are the most commonly encountered. The ground layer is mid-dense to dense and dominated by a variety of grasses, including *Heteropogon triticeus* (giant spear grass), *H. contortus* (black spear grass) *Sarga plumosum* (plume sorghum) and *Capillipedium parviflorum* (scented top). Occurs on rolling plains. Not a Wetland. (BVG1M: 9b).

**Short description:** *Eucalyptus leptophleba* woodland on plains

**Supplementary descriptions:**

**Subregions:** 2, (9.3), (7.9)

**Protected areas:** Annan River (Yuku Baja-Muliku) NP, Ngalba-bulal NP (CYPAL), Kalkajaka NP (CYPAL), Keatings Lagoon CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.25: South-east of bioregion. Alien forbs such as *Crotalaria goreensis*\* and *Stachytarpheta jamaicensis*\*, and grasses such as *Themeda quadrivalvis*\* (grader grass) may occur at high densities.  
3.5.25a: South-east of bioregion. Weed such as *Sida* spp., *Mesosphaerum suaveolens* and *Corchorus* sp. present.  
3.5.25b: South-east of bioregion. Alien forbs such as *Crotalaria goreensis*\* and *Stachytarpheta jamaicensis*\*, and grasses such as *Themeda quadrivalvis*\* (grader grass) may occur at high densities.  
3.5.25c: North western Cape York Peninsula.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

## Regional ecosystem 3.5.26

**Description:** Woodland to open woodland of *Eucalyptus platyphylla* (poplar gum). This species may be completely leafless at the end of the dry season. Scattered trees of *Corymbia clarksoniana* (Clarkson's bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) are often present in the canopy. A few sub-canopy trees may be present. Isolated low shrubs of *Melaleuca viridiflora* (broad-leaved teatree), *Planchonia careya* (cocky apple) and canopy species may be present. The ground layer is mid-dense to dense and dominated by grass species predominantly *Heteropogon contortus* (black speargrass) and *Themeda triandra* (kangaroo grass). Occurs on outwash plains and older higher alluvial terraces. Contains Palustrine. (BVG1M: 9b).

**Short description:** *Eucalyptus platyphylla* +/- *Corymbia clarksoniana* woodland to open forest on flat wet plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 87-5

**Subregions:** 2, 9.3, (7.9)

**Protected areas:** Annan River (Yuku Baja-Muliku) NP, Kalkajaka NP (CYPAL), Ngalba-bulal NP (CYPAL), Keatings Lagoon CP, Annan River (Yuku Baja-Muliku) RR

**Extent in reserves:** High

**Wetland:** Contains Palustrine

**Special values:** 3.5.26: Potential habitat for NCA listed species: *Acacia guymeri*.

**Comments:** 3.5.26: Occurs in the south-east of the bioregion near to the Wet Tropics Bioregion boundary.

**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 3.5.27

**Description:** Low open woodland of *Melaleuca citrolens* (scrub teatree) and often also *M. viridiflora* (broad-leaved teatree) and *M. foliolosa* (scaly leaved teatree). In places, these species occur as multi-stemmed shrubs rather than single-stemmed low trees. A sparse shrub layer is sometimes present. The short, sparse ground layer is dominated by annual graminoids with *Fimbristylis* spp., *Schizachyrium* spp. (fire grass) and *Aristida* spp. (three-awned speargrass) being the most commonly encountered taxa. Occurs on low undulating rises. Not a Wetland. (BVG1M: 21b).

**Short description:** *Melaleuca citrolens* +/- *M. foliolosa* +/- *M. viridiflora* low open woodland on plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 153-5

**Subregions:** 6

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL)

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.27: Restricted to Lakefield National Park within the Laura Basin.

**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 3.5.28

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is no longer mapped. *Asteromyrtus lysicephala* (back to front bush) dominates the sparse shrub layer. *Neofabricia myrtifolia* (yellow teatree), *Thryptomene oligandra*, *Alyxia spicata* (chain fruit) and *Lomandra banksii* occur at high densities in the shrub layer. Scattered *Melaleuca arcana* (Cape York paperbark), *M. nervosa* (woodland paperbark) and *Lophostemon suaveolens* (swamp mahogany) occur as emergent trees. Scattered emergent *Banksia dentata* (tropical banksia) shrubs are also present. The ground layer is sparse and dominated by *Schoenus sparteus* and *Eriachne pallescens*. Occurs on pediment fans. Not a Wetland. (BVG1M: 29a).

**Short description:** *Asteromyrtus lysicephala* +/- *Thryptomene oligandra* +/- *Neofabricia myrtifolia* open heath on pediment fans

**Supplementary descriptions:** Neldner and Clarkson (in prep), 173-5

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.28: The structure of this regional ecosystem varies greatly depending on micro relief and fire history. In areas of impeded drainage, *Melaleuca arcana* trees may dominate. Headwaters of the Jack River.

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

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Under review

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## Regional ecosystem 3.5.29

**Description:** Closed tussock grassland of *Themeda triandra* (kangaroo grass) and *Heteropogon contortus* (black spear grass). A range of scattered emergent shrubs can include *Planchonia careya* (cocky apple), *Cycas badensis*, *Parinari nonda* (nonda plum) and *Cochlospermum gillivraei* (kapok). Where mapped on the mainland and east coast islands grasslands of *Imperata cylindrica* (blady grass) +/- *Mnesithea rottboellioides* (northern cane grass) can also occur. Occurs on erosional plains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Themeda triandra* and *Heteropogon contortus* closed tussock grasslands on erosional plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 182-5, 189-5; Stanton, Fell & Gooding (2008), AS17d, L17d.

**Subregions:** 4, 3

**Protected areas:** Apudthama NP (CYPAL)

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.29: Proposed new REs 3.5.30x1, 3.5.30x3 were amalgamated in to this RE. The grassland is a fire climax community, with scattered vine forest remnants clumped on low granite mounds which protrude above the undulating sand plain, offering some protection from fire. Moa Island in the Torres Strait and also on coastal areas and islands in the north-east of the bioregion.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Rare ecosystem < 1000ha pre-clearing extent and changes in fire regimes have resulted in invasion by woody species.

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## Regional ecosystem 3.5.30

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. This regional ecosystem is now mapped as 3.3.60a. Themeda arguens dominates the dense ground layer. Fimbristylis spp. And Panicum spp. Frequently occur below the tall grass canopy. Dichanthium sericeum subsp. Sericeum (Queensland blue grass) and Capillipedium parviflorum (scented top) are often subdominant. Emergent low trees and shrubs occur very sporadically. Occurs on low undulating rises. Not a Wetland. (BVG1M: 32a).

Vegetation communities in this regional ecosystem include:

3.5.30x1: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.5.29. Imperata cylindrica (blady grass) dominates the dense ground layer (1-1.6m tall). At some sites, Mnesithea rottboellioides (northern canegrass) may be codominant, and near the Nesbit River, Arundinella setosa is dominant. Fimbristylis spp. and Scleria spp. frequently occur below the tall grass canopy. Emergent trees (2-6m tall) are extremely rare. Occurs on coastal plains. Not a Wetland. (BVG1M: 32b).

3.5.30x3: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.5.29. Themeda triandra (kangaroo grass) dominates the mid-dense ground layer (10-60cm tall), which varies in height depending on exposure to the prevailing winds. Heteropogon contortus (black speargrass), Cassytha filiformis and Zornia muriculata are frequently present, but contribute only a small proportion of the biomass. Scattered shrubs may be present, but are generally windsheared and do not emerge much above the ground layer. Occurs on coastal headlands. Not a Wetland. (BVG1M: 32a).

**Short description:** Themeda arguens and Dichanthium sericeum closed tussock grassland on low undulating rises

**Supplementary descriptions:** Neldner and Clarkson (in prep), 186-5

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.30: South east of bioregion.  
3.5.30x1: Torres St Is and Tip.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Under review

### Regional ecosystem 3.5.31

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) is a frequent subdominant tree, with *Canarium australium* (scrub turpentine), *Eucalyptus brassiana* (Cape York red gum) and *Corymbia tessellaris* (Moreton Bay ash) sometimes present. The sub-canopy is dominated by *Melaleuca nervosa* (woodland paperbark), with a number of other species frequently present. The sparse shrub layer is composed of a variety of species, with *Acacia crassicaarpa* (spoon tree), *A. leptocarpa* (a wattle) and *Planchonia careya* (cocky apple) the most frequent shrubs. The ground layer is sparse to mid-dense, with *Mnesithea rottboellioides* (northern cane grass), *Eriachne trisetata* (wanderrie grass) and *Heteropogon triticeus* (giant speargrass) the dominant grasses. Occurs on coastal plains. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* +/- *Erythrophleum chlorostachys* woodland on coastal plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 60-5

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.31: In the south-east of the bioregion near Hopevale.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.5.32

**Description:** Open forest (15-20m) of *Asteromyrtus brassii*, *Syzygium angophoroides*, *Acmena hemilampra* subsp. *hemilampra*, *Acacia crassicaarpa* (spoon tree) +/- *Melaleuca quinquenervia* (broad-leaved paperbark). The sub-canopy and shrub layers tend to merge (2-10m) and contain *Styphelia ruscifolia*, *Exocarpos latifolius*, *Lithomyrtus obtusa*, *Livistona muelleri*, *Acacia crassicaarpa*, *Polyscias australiana*, *Breynia oblongifolia*, *Lophostemon suaveolens* (swamp mahogany), *Dillenia alata* (red beech) and *Banksia dentata* (tropical banksia). The ground cover is dominated by *Lomandra banksii*. Occurs on sandy rises in an erosional plain. Not a Wetland. (BVG1M: 28c).

**Short description:** *Asteromyrtus brassii* +/- *Syzygium angophoroides* +/- *Acmena hemilampra* open forest on residual sand rises and sheets

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), AS9a.

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 3.5.32: Potential habitat for NCA listed species: *Syzygium buettnerianum*.

**Comments:** 3.5.32: Restricted to Moa Island, Torres Strait.

**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 3.5.33

**Description:** Simple evergreen notophyll vine forest with frequent canopy species including *Acacia polystachya*, *Welchiodendron longivalve* (yellow box-penda), *Endiandra glauca*, *Flindersia afflaiana* (hickory ash), *Syzygium forte* and *Buchanania arborescens*. A range of other rainforest species and heath species such as *Neofabricia myrtifolia* (yellow teatree), *Asteromyrtus brassii* and *Choriceras tricornis* may also be present in the canopy layer. Some canopy species including *Callitris intratropica* may also occur as emergents. A very sparse to dense subcanopy contains a similar range of species. The very sparse to mid-dense mixed shrub layer often includes *Atractocarpus sessilis*, *Choriceras tricornis*, *Wilkia rigidifolia* and juvenile canopy species. The composition of these layers varies between individual vine forest patches. Thin wiry vines such as *Hypserpa laurina*, *Jasminum didymum*, *Flagellaria indica*, *Smilax australis* and *S. glycyphylla* are frequent. Scattered epiphytic orchids and creepers such as *Dischidia major* and *Dischidia ovata* are present on the lower branches of the canopy trees. The ground is covered with a thick layer of leaf litter, and rocks frequently outcrop. Scattered ferns, graminoids and tree seedlings are usually present. Occurs as discrete patches on sandplains. Not a Wetland. (BVG1M: 2c).

**Short description:** Simple evergreen notophyll vine forest on sand plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 25, 24. Stanton & Fell (2005) 60, 61, 62, 63, 64

**Subregions:** 4, (1)

**Protected areas:** Apudthama NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Batavia NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Jardine River NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.5.33: Relatively young vine forest with *Callitris intratropica* emergents.

**Comments:** 3.5.33: The RE 3.10.3 and 3.10.2 and the vegetation community 3.7.1x1a and 3.5.4x3 were amalgamated into this RE. This RE also occurs in small patches on outcrops of deeply weathered rock (land zone 7) and sandstone outcrops (land zone 10). This Regional Ecosystem is invading surrounding communities and this is evident where *Callitris intratropica* is noticeable in the canopy and or emergent layer or where heath species are prominent in the canopy. North-east of bioregion, McHenry Uplands.

**Estimated extent:**<sup>1</sup> Pre-clearing 40000 ha; Remnant 2021 40000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.5.34

**Description:** Open forest to woodland or open forest of *Corymbia nesophila* (Melville Island bloodwood) +/- *C. clarksoniana* (Clarkson's bloodwood) +/- *C. stockeri* (gum topped bloodwood). A sparse subcanopy can occur. The sparse to mid dense shrub layer can include *Jacksonia thesioides* (broombush), *Acacia simsii* or other species. Occurs on sand rises and remnant alluvial terraces. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* open forest on sand rises in the Torres Strait islands

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), AS5k, AS5j.

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.34: *C. stockeri* is likely to be *C. stockeri* subsp. *peninsularis*. Occurs in the Torres Strait islands.

**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 3.5.35

**Description:** Woodland to sometimes open woodland of *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia nesophila* (Melville Island bloodwood). Where *Lophostemon suaveolens* (swamp mahogany) occurs it can be co-dominant. A very sparse to sparse subcanopy layer often includes *Asteromyrtus brassii*, *Neofabricia myrtifolia* (yellow teatree), *Acacia* spp. or *E. tetrodonta*. A very sparse to mid-dense shrublayer often contains juvenile canopy species as well as *Neoroepera banksii* or *Acacia calyculata*. Commonly found species in the sparse to grassy ground layer are *Schoenus sparteus*, *Lomandra* spp., *Sarga plumosum* (plume sorghum) and *Alloteropsis semialata* (cockatoo grass). Occurs most extensively on deep sands on sandstone plateaus. Not a Wetland. (BVG1M: 14a).

**Short description:** *Eucalyptus tetrodonta* and *Corymbia nesophila* woodland with heathy understory on sand plains

**Supplementary descriptions:**

**Subregions:** 4, 1, (7), (6)

**Protected areas:** Apudthama NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Batavia NP (CYPAL), Jardine River NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.35: Was previously mapped as 3.5.10x1 (part). Areas dominated by *Corymbia nesophila* sometimes occur. The understory species mix of this community may change depending on fire history. Extensive on sandplains from the upper reaches of the Archer River and Temple Bay through the McHenry Uplands to Bamaga.

**Estimated extent:**<sup>1</sup> Pre-clearing 223000 ha; Remnant 2021 223000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.36

**Description:** Woodland to tall open forest of *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia nesophila* (Melville Island bloodwood) woodland +/- *C. stockeri* (gum topped bloodwood). Occurs on undulating plains and tertiary plateaus. Not a Wetland. (BVG1M: 14a).

Vegetation communities in this regional ecosystem include:

3.5.36a: Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia nesophila* (Melville Island bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *C. stockeri* (gum topped bloodwood). The sparse to mid-dense subcanopy often contains canopy species +/- *Grevillea glauca* (clothespeg Grevillea) +/- *Parinari nonda* (nonda plum) +/- *Acacia rothii*. The sparse to dense shrub layer also contains canopy species +/- *Coelospermum reticulatum* (medicine bush) +/- *Planchonia careya* (cocky apple) +/- *Persoonia falcata* (geebung). The sparse to dense grassy ground layer can be dominated by *Heteropogon triticeus* (giant spear grass), *Aristida* spp. (three-awned speargrass), *Sarga plumosum* (plume sorghum) and *Alloteropsis semialata* (cockatoo grass). Occurs on undulating and eroded tertiary plains. Not a Wetland. (BVG1M: 14a).

3.5.36b: Woodland to open forest of *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia nesophila* (Melville Island bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *C. stockeri* (gum topped bloodwood). The sparse to mid-dense subcanopy is often dominated by *Eucalyptus tetrodonta*, *Erythrophleum chlorostachys* and *Grevillea glauca* (clothespeg Grevillea). The open to mid-dense shrublayer includes juvenile canopy species +/- *Planchonia careya* (cocky apple) +/- *Coelospermum reticulatum* (medicine bush) +/- *Acacia rothii* +/- *Xylomelum scottianum*. The mid-dense to dense grassy groundlayer is dominated by *Heteropogon triticeus* (giant spear grass), *Alloteropsis semialata* (cockatoo grass) and *Sarga plumosum* (plume sorghum). Occurs on sands on tertiary plateaus. Not a Wetland. (BVG1M: 14a).

**Short description:** *Eucalyptus tetrodonta* and *Corymbia nesophila* woodland to open forest on undulating plains and remnant plateaus

### Supplementary descriptions:

**Subregions:** 7, 4, 8, 6, (1), (5), (2), (2.6), (9), (3), (7.9), (2.4)

**Protected areas:** Oyala Thumotang NP (CYPAL), Batavia NP (CYPAL), Cape Melville NP (CYPAL), Apudthama NP (CYPAL), Lama Lama NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Olkola NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Alwal NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Biniirr NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Wuthathi (Shelburne Bay) NP (CYPAL), Ngaynggarr NP (CYPAL), Ngalba-bulal NP (CYPAL), Endeavour River NP, Rinyirru (Lakefield) RR, Kutini-Payamu (Iron Range) NP (CYPAL), Daintree NP (CYPAL), Annan River (Yuku Baja-Muliku) NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.5.36: Potential habitat for NCA listed species: *Acacia ommatosperma*, *Argophyllum verae*, *Cycas semota*, *Fimbristylis adjuncta*, *Habenaria rumphii*, *Hedyotis novoguineensis*, *Lepturus geminatus*, *Samadera* sp. (Kennedy River J.R.Clarkson 5645), *Stemona angusta*, *Sticherus milnei*, *Stylidium longissimum*.

**Comments:** 3.5.36: REs 3.5.2 (part), 3.5.10 (part), 3.5.11, 3.5.12, 3.5.23, proposed new REs 3.5.10x1, 3.5.23x1, 3.9.2x1 and vegetation community 3.5.9d (part) were amalgamated in to this RE. *C. stockeri* is likely to be *C. stockeri* subsp. *peninsularis*. Occurs on eroded plains and plateaus from Cape Melville to the north of the bioregion.

3.5.36a: *C. stockeri* is likely to be *C. stockeri* subsp. *peninsularis*. Occurs from Cape Melville, across to the Kimba plateau and throughout the north of the bioregion.

3.5.36b: Small unmappable areas of 3.5.36a occur sporadically throughout the extent of this community. *C. stockeri* is likely to be *C. stockeri* subsp. *peninsularis*. 3.5.36b is generally taller (above 25m) than 3.5.36a. Occurs more often as an open forest in the north. Occurs on the Weipa Plateau and other remnant bauxite plateaus.

**Estimated extent:**<sup>1</sup> Pre-clearing 1762000 ha; Remnant 2021 1723000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.5.37

**Description:** Woodland to tall woodland of *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia stockeri* (gum topped bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood). Occurs on erosional plains and deep massive sands. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.5.37a: Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia stockeri* (gum topped bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *C. clarksoniana* (Clarkson's bloodwood). The sparse to open subcanopy often contains canopy species +/- *Grevillea glauca* (clothespeg Grevillea) +/- *Melaleuca* spp. The sparse to mid-dense shrub layer is predominantly canopy species regrowth +/- *Acacia rothii* +/- *Alphitonia pomaderroides* (soapbush) +/- *Planchonia careya* (cocky apple). The usually dense mixed grassy groundlayer can include *Heteropogon triticeus* (giant spear grass), *Aristida* spp. (three-awned speargrass), *Sarga plumosum* (plume sorghum), *Eriachne* spp. (wanderrie grasses) and *Schizachyrium* spp. Occurs on erosional plains. Not a Wetland. (BVG1M: 14b).

3.5.37b: Tall woodland to woodland of *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia stockeri* (gum topped bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *C. clarksoniana* (Clarkson's bloodwood). *Erythrophleum chlorostachys* is most prominent in the sub canopy +/- other canopy species +/- *Grevillea glauca* (clothespeg Grevillea). Canopy species regrowth is conspicuous in the shrublayer along with *Alphitonia pomaderroides* (soapbush), *Coelospermum reticulatum* (medicine bush) and *Grevillea parallela*. The mid-dense to dense grassy ground layer is dominated by *Schizachyrium* spp. (fire grass), *Heteropogon triticeus* (giant spear grass), *Alloteropsis semialata* (cockatoo grass), and *Thaumastochloa* spp. Occurs on deep massive soils mainly on the Kimba Plateau. Occurs on deep massive soils mainly on tertiary remnant plateaus, predominantly the Kimba Plateau. Not a Wetland. (BVG1M: 14a).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia stockeri* woodland to tall open forest on erosional plains and remnant plateaus

**Supplementary descriptions:**

**Subregions:** 8, 1, 6, (7), (4), (2.4), (9), (5)

**Protected areas:** Oyala Thumotang NP (CYPAL), Olkola NP (CYPAL), Alwal NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Oyala Thumotang RR, Olkola (Kurrumbila) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.5.37: Potential habitat for NCA listed species: *Jedda multicaulis*, *Samadera* sp. (Kennedy River J.R.Clarkson 5645), *Stemona angusta*.

3.5.37b: Habitat for the vulnerable plant species *Jedda multicaulis*.

**Comments:** 3.5.37: REs 3.5.1, 3.5.10 (part) and vegetation communities 3.5.7a, 3.5.8a, 3.5.9a, 3.5.9d (part) were amalgamated in to this RE. *C.stockeri* is likely to be subsp. *peninsularis*. Occurs from the Kimba Plateau, throughout the Holroyd Plain and north of Coen.

3.5.37a: Occurs predominantly on erosional plains and rises but can occur on edges of bauxite plateaus. *C.stockeri* is likely to be subsp. *peninsularis*. Occurs from the Kimba Plateau, throughout the Holroyd Plain and north of Coen.

3.5.37b: This was previously mapped as 3.5.1. Typical vegetation is on the Kimba Plateau in an area known as the Desert. *C.stockeri* is likely to be subsp. *Peninsularis*. 3.5.37b occurs on tertiary remnant plateaus whilst 3.5.37a does not. 3.5.37b is generally taller (above 22m) than 3.5.37a. Predominantly on the Kimba Plateau, but may occur on other tertiary remnant plateaus in small patches below the scale of mapping.

**Estimated extent:**<sup>1</sup> Pre-clearing 594000 ha; Remnant 2021 594000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.5.38

**Description:** Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) and *E. cullenii* (Cullen's ironbark) or *E. tetrodonta* and *C. stockeri* (gum topped bloodwood) +/- *Melaleuca* spp. Occurs on weathered remnant surfaces often with ironstone nodules to surface. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.5.38a: Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia stockeri* (gum topped bloodwood) +/- *E. cullenii* (Cullen's ironbark) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *Corymbia* spp. The very sparse subcanopy contains a combination of *Melaleuca viridiflora* (broad-leaved teatree), *Grevillea glauca* (clothespeg Grevillea) or *Acacia* spp. The very sparse to sparse shrub layer can contain juvenile canopy species or *Petalostigma banksii* (smooth-leaved quinine). *Heteropogon triticeus* (giant spear grass) and *Sarga plumosum* (plume sorghum) are often dominant in the sparse to mid-dense grassy groundlayer. Occurs on weathered remnant surfaces often with ironstone nodules to surface. Not a Wetland. (BVG1M: 14b).

3.5.38b: Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia stockeri* (gum topped bloodwood). *Melaleuca stenostachya* (fibre-barked teatree) is often prominent in both the canopy and sub-canopy with *M. viridiflora* (broad-leaved teatree) and *Acacia* spp. also found in the very sparse to sparse sub-canopy. The very sparse shrub layer can contain scattered juvenile canopy species, *Coelospermum reticulatum* (medicine bush) or *Petalostigma banksii* (smooth-leaved quinine). The sparse to mid-dense mixed grassy groundlayer can include *Alloteropsis semialata* (cockatoo grass), *Heteropogon triticeus* (giant spear grass), *Sarga plumosum* (plume sorghum), *Schizachyrium* spp. or *Pseudopogonatherum contortum*. Occurs on weathered remnant surfaces often with ironstone nodules to surface. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus tetrodonta* +/- *E. cullenii*, *Corymbia stockeri* and *Melaleuca* spp. woodland on remnant surfaces

### Supplementary descriptions:

**Subregions:** 7, 8, 1, 4, (6), (3), (2.4)

**Protected areas:** Oyala Thumotang NP (CYPAL), Olkola NP (CYPAL), Batavia NP (CYPAL), Alwal NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Oyala Thumotang RR, Olkola (Kurrumbila) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.38: Vegetation communities 3.5.8c, 3.5.9d (part) and proposed new vegetation community 3.5.7x2c were amalgamated in to this RE. *C. stockeri* is likely to be subsp. *peninsularis*. Central plains on the Peninsula from Musgrave to the Torres Strait Islands.

3.5.38a: Both subspecies of *Corymbia stockeri* may occur. Occurs on weathered remnant surfaces often with ironstone nodules to surface. *Melaleuca stenostachya* may occur but will have lower biomass than the *C. stockeri* and *Eucalyptus cullenii*. Central plains on the Peninsula from Musgrave to the Torres Strait Islands.

3.5.38b: *C. stockeri* is likely to be subsp. *peninsularis*. On weathered remnant surfaces often with ironstone nodules to surface. Occurs in the central Peninsula from Coen to Bramwell Junction.

**Estimated extent:**<sup>1</sup> Pre-clearing 195000 ha; Remnant 2021 195000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.39

**Description:** Woodland to very occasionally open forest dominated by *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *Corymbia* spp. A very sparse to sparse subcanopy can occur. The very sparse to sparse mixed shrub layer often contains juvenile canopy species. Common species in the sparse to dense grassy groundlayer are *Sarga plumosum* (plume sorghum), *Schizachyrium* spp. (fire grass) or *Heteropogon triticeus* (giant spear grass). Occurs on outwash plains. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.5.39x1: Low woodland to low open forest of *Thryptomene oligandra* and *Melaleuca viridiflora* +/- *Neofabricia mjoebergii* +/- *Acacia torulosa* +/- *Grevillea pteridifolia*. Emergents of *Eucalyptus tetrodonta* and *Corymbia clarksoniana* sometimes occur. The very sparse to sparse sub canopy contains canopy species +/- *Jacksonia thesioides*. The very sparse shrub layer also includes juvenile canopy species +/- *Alyxia spicata* +/- *Styphelia ruscifolia*. The very sparse to sparse ground layer usually has *Panicum* spp., *Schizachyrium* spp. and hydrophilic species such as *Drosera* spp. and *Stylidium* spp. Occurs on seepage areas fringing Tertiary plains. Palustrine. (BVG1M: 28c).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia clarksoniana* woodland on sand plains

### Supplementary descriptions:

**Subregions:** 7, 6, 8, 1, (5), (4), (2), (2.4), (2.6), (9), (9.3)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Olkola NP (CYPAL), Oyala Thumotang NP (CYPAL), Alwal NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Ngaynggarr NP (CYPAL), Cape Melville NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Batavia NP (CYPAL), Lama Lama NP (CYPAL), Errk Oygangand NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Rinyirru (Lakefield) RR, Biniirr NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Olkola (Kurrumbila) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.5.39: Potential habitat for NCA listed species: *Acacia armitii*, *Dendrobium johannis*, *Habenaria rumphii*, *Jedda multicaulis*, *Samadera* sp. (Kennedy River J.R.Clarkson 5645), *Stemona angusta*.  
3.5.39x1: High diversity of plant species due to seepage from higher in landscape.

**Comments:** 3.5.39: REs 3.5.7, 3.5.12, 3.5.10 (part) and proposed new RE 3.5.7x2 were amalgamated in to this RE. Mainly occurs on plains in the Laura basin, but also in the central west Peninsula and on some Torres Strait Islands.

3.5.39x1: Was previously mapped as RE 3.3.33. Widespread across the south of the bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 1172000 ha; Remnant 2021 1168000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.40

**Description:** Woodland to low woodland of *Melaleuca stenostachya* (fibre-marked teatree) +/- *Eucalyptus chlorophylla* (shiny-leaved box) +/- *M. viridiflora* (broad-leaved teatree) +/- (sometimes emergent) *Corymbia stockeri* (gum topped bloodwood). A very sparse to sparse subcanopy often contains canopy *Melaleuca* spp. +/- *Jacksonia thesioides* (broombush) +/- *Acacia* spp. The very sparse shrub layer includes juvenile canopy spp. and *Petalostigma banksii* (smooth-leaved quinine). The sparse to mid-dense grassy ground layer often contains *Themeda triandra* (kangaroo grass), *Heteropogon triticeus* (giant spear grass) or *Schizachyrium fragile* (firegrass). Occurs on outwash plains. Not a Wetland. (BVG1M: 21b).

**Short description:** *Melaleuca stenostachya* +/- *Eucalyptus chlorophylla* woodland +/- *M. viridiflora* shrub layer on outwash plains

### Supplementary descriptions:

**Subregions:** 6, 1, 5, 2, (3), (7), (8), (4), (9.3), (2.4)

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Cape Melville NP (CYPAL), Ngaynggarr NP (CYPAL), Oyala Thumotang NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.5.40: Potential habitat for NCA listed species: *Dendrobium johannis*.

**Comments:** 3.5.40: REs 3.5.17, 3.5.18 and vegetation community 3.5.24a were amalgamated in to this RE. Occurs throughout Cape York including the Torres Strait Islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 43000 ha; Remnant 2021 43000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.41

**Description:** Woodland to low open woodland of *Melaleuca viridiflora* (broad-leaved teatree) +/- *Corymbia clarksoniana* (Clarkson's bloodwood). Occurs on plains. Contains Palustrine. (BVG1M: 21a).

Vegetation communities in this regional ecosystem include:

3.5.41a: Woodland to low open woodland of *Melaleuca viridiflora* (broad-leaved teatree) +/- *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Eucalyptus tetrodonta* (Darwin stringybark). This community can also occur as *C. clarksoniana* open woodland with a conspicuous subcanopy of *M. viridiflora*. Emergent *C. clarksoniana* or *E. tetrodonta* can sometimes be present. The very sparse shrub layer often contains juvenile canopy species. The very sparse to dense grassy ground layer can include *Heteropogon triticeus* (giant spear grass), *Eriachne* spp., *Sarga plumosum* (plume sorghum) or *Schizachyrium* spp. Occurs on plains including some wetter areas where sedge spp. are often present. Occurs on plains including some wetter areas where sedge spp. are often present. Contains Palustrine. (BVG1M: 21a).

3.5.41b: Low open woodland to woodland of *Melaleuca viridiflora* (broad-leaved teatree) +/- *Petalostigma banksii* (smooth-leaved quinine). A very sparse subcanopy and/or shrub layer contains *M. viridiflora* or *Petalostigma banksii*. The mid-dense grassy ground layer can contain *Schizachyrium* spp. (fire grass), *Alloteropsis semialata* (cockatoo grass) or *Heteropogon triticeus* (giant spear grass). Occurs on plains. Not a Wetland. (BVG1M: 21a).

**Short description:** *Melaleuca viridiflora* +/- *Corymbia clarksoniana* woodland to low open woodland on plains

**Supplementary descriptions:**

**Subregions:** 7, 6, 4, 1, 8, (2), (2.6), (5), (2.4), (3), (9), (9.3)

**Protected areas:** Oyala Thumotang NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Cape Melville NP (CYPAL), Batavia NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Olkola NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Ngaynggarr NP (CYPAL), Oyala Thumotang RR

**Extent in reserves:** High

**Wetland:** Contains Palustrine

**Special values:** 3.5.41: Potential habitat for NCA listed species: *Acacia ommatosperma*, *Calophyllum bicolor*, *Dendrobium johannis*.

**Comments:** 3.5.41: REs 3.5.14, 3.5.15, 3.9.3, vegetation communities 3.5.7a (part), 3.5.22a and proposed new REs 3.5.22x1, 3.5.22x2 were amalgamated in to this RE. Occurs throughout the Peninsula on plains.  
3.5.41a: Occurs throughout the Peninsula on plains.  
3.5.41b: Occurs throughout the Peninsula on plains.

**Estimated extent:**<sup>1</sup> Pre-clearing 237000 ha; Remnant 2021 236000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.42

**Description:** Low open forest to low woodlands of *Asteromyrtus brassii* and/or *Neofabricia myrtifolia* (yellow teatree) +/- *Allocasuarina littoralis* (black sheoak) +/- *Melaleuca viridiflora* (broad-leaved teatree). An emergent layer sometimes occurs and can include *Callitris intratropica* (cypress pine) or *Melaleuca* spp. A very sparse to mid-dense subcanopy of canopy species, *Leucopogon yorkensis*, *Choriceras tricornis* and other heath species occurs. The very sparse to sparse shrub layer includes a mix of heath species. The very sparse to mid-dense ground layer can include *Lomandra* spp., *Schoenus sparteus* and *Cleistochloa* spp. Occurs on sand plains. Not a Wetland. (BVG1M: 28c).

**Short description:** *Asteromyrtus brassii* and/or *Neofabricia myrtifolia* low open forest to woodland on sand plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 108, 135, 146.

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

**Protected areas:** Apudthama NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Jardine River NP, Bromley (Ampulin) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.5.42: Potential habitat for NCA listed species: *Croton brachypus*, *Dendrobium johannis*.

**Comments:** 3.5.42: Mesic species such as *Welchiodendron longivalve*, *Deplanchea tetraphylla*, *Dodonaea polyandra*, *Coelospermum*, *Exocarpos latifolius* may occur in areas bordering vine thicket. Occurs in the northeastern Peninsula from Lockhart River to Heathlands.

**Estimated extent:**<sup>1</sup> Pre-clearing 104000 ha; Remnant 2021 104000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.5.43

**Description:** Tall shrubland to open scrub dominated by *Asteromyrtus brassii* with *Melaleuca saligna*, *Lophostemon suaveolens* (swamp mahogany) and *Acacia crassicaarpa* (spoon tree) often present. *L. suaveolens* is often emergent. The mid-dense lower shrub layer can include *Styphelia ruscifolia*, *Baeckea frutescens*, *Exocarpos latifolius*, *M. viridiflora* (broad-leaved teatree), *Alyxia spicata* (chain fruit), *Banksia dentata* (tropical Banksia). *Lomandra banksii* is prominent in the groundlayer. Occurs on residual sand rises. Not a Wetland. (BVG1M: 29a).

**Short description:** *Asteromyrtus brassii* +/- *Melaleuca saligna* tall shrubland on residual sand plains

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), AS14i.

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.5.43: Was previously mapped as 3.5.19 (part). Restricted to Moa Island in the Torres Strait.

**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 3.7.1

**Description:** Semi-deciduous notophyll vine thicket with dominants including *Gyrocarpus americanus*, *Drypetes deplanchei* (yellow tulip), *Wrightia pubescens* subsp. *penicillata* (chertie), *Croton arnhemicus*, *Garuga floribunda* var. *floribunda*, *Aidia racemosa* (wild randia), *Bombax ceiba* (kapok), *Celtis* sp. (Cape Melville D.G.Fell+ DGF3025), *Millettia* spp. and *Strychnos lucida* (strychnine bush). Occasional emergents include *Acacia polystachya* and some canopy species. The sparse to mid-dense shrub usually contains *Ziziphus oenopolia* and canopy species. The very sparse to sparse ground layer includes grass and sedge species plus seedlings of canopy species. Occurs on scattered lateritic hillslopes. Not a Wetland. (BVG1M: 7b).

Vegetation communities in this regional ecosystem include:

3.7.1x1a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.33. A mid-dense to dense, uneven canopy (12-35m tall) is often dominated by the evergreen trees *Welchiodendron longivalve* (yellow box-penda), *Emmenosperma alphonseoides*, *Halfordia kendack*, *Syzygium forte* subsp. *forte*, *Acmena hemilampra* subsp. *hemilampra* and *Flindersia ifflaiana*. Other frequent canopy trees that may be codominants in places include *Acacia polystachya*, *Blepharocarya involucrigera* (rose butternut), *Alstonia actinophylla* (milkwood), *Buchanania arborescens* (native mango), *Podocarpus grayae*, *Sterculia quadrifida* and *Endiandra glauca*. Occasional evergreen emergent trees up to 40 metres tall are present. A number of species may be present in the sparse to mid-dense sub-canopy layer (10-22m tall) with *Endiandra glauca* (coach walnut) the most frequently encountered tree and *Ptychosperma elegans* the most frequent palm. A sparse to mid-dense shrub/low tree layer (0.5-10m) is usually present. *Atractocarpus sessilis* and *Choriceras tricornis* are the most frequent species in this layer. *Wilkiea rigidifolia*, *Syzygium fibrosum*, *Tabernaemontana orientalis* and *Cryptocarya cunninghamii* are often present. The palms, *Licuala ramsayi* (fan palm), *Hydriastele wendlandiana* and *Ptychosperma macarthurii* are frequently present in the lower tree layers. The composition of these layers varies between individual vine forest patches. Thin wiry vines such as *Flagellaria indica*, *Smilax australis*, *S. glycyphylla* and *Strychnos minor* are common, and often reach the top of the canopy. Scattered epiphytic orchids are present on the lower branches of the canopy trees. The ground is covered with a thick layer of leaf litter, and rocks frequently outcrop. Scattered ferns, graminoids and tree seedlings are usually present. Occurs on ferricrete outcrops & slopes. Not a Wetland. (BVG1M: 2c).

3.7.1x1b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.1. Semi deciduous vine thicket with *Terminalia subacroptera*, *Intsia bijuga*, *Hibiscus tiliaceus*, *Excoecaria agallocha* (milky mangrove), *Thespesia populneoides* and *Cathormion umbellatum* subsp. *moniliforme*. Occurs on laterite exposures on saline margins. Not a Wetland. (BVG1M: 7b).

3.7.1x2: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.4. A diverse group of species which includes *Welchiodendron longivalve* (yellow box-penda), *Acacia polystachya* (wattle), *Buchanania arborescens* (native mango), *Dysoxylum oppositifolium* (pink mahogany), *Canarium australicum* (scrub turpentine), *Endiandra glauca* (coach walnut) and *Alstonia actinophylla* (milkwood) dominates a dense, even canopy (18-25m tall). A number of other species may be present in the canopy and dominate in places. At some sites the canopy may only be 8-15 metres tall and be dominated by single species such as *Choriceras tricornis* (Cape choriceras). A sparse to mid-dense sub-canopy layer (15-20m tall) and mid-dense low tree layer (3-8 m) are usually also present. The composition of these layers varies between individual vine forest patches. Thin wiry vines such as *Flagellaria indica* are frequent and often reach the top of the canopy. Scattered epiphytic orchids are present on the lower branches of the canopy trees. The ground is covered with a thick layer of leaf litter and rocks frequently outcrop. Scattered forbs and tree seedlings are usually present. Occurs as small patches on weathered surfaces of rolling downs. Not a Wetland. (BVG1M: 2c).

<b>Short description:</b>	Semi-deciduous notophyll and/or microphyll vine thicket on isolated lateritic hill slopes
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 32a, 32c. Stanton & Fell (2005) 56, 57 in part. Stanton, Fell & Gooding (2008), L2e.
<b>Subregions:</b>	7, 4, 6, 1, (8), (3)
<b>Protected areas:</b>	Oyala Thumotang NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Oyala Thumotang RR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.7.1: Potential habitat for NCA listed species: <i>Calophyllum bicolor</i> , <i>Crepidomanes aphlebioides</i> , <i>Freycinetia percostata</i> , <i>Hydriastele costata</i> , <i>Phyllanthus grayi</i> , <i>Sticherus milnei</i> .



<b>Comments:</b>	3.7.1: The vegetation community 3.7.1x1b was amalgamated in to this RE. Thin wiry vines are frequent often making entry into these units very difficult. Mainly in the Laura Basin, but also in central peninsula and on some Torres Strait Islands. 3.7.1x1a: Northeast Jardine NP. 3.7.1x1b: Restricted to Saibai Island. Only a few remnants remain and may not reflect the original composition after an extensive period of nearby traditional occupation. 3.7.1x2: Central bioregion.
<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>	Under review

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## Regional ecosystem 3.7.2

<b>Description:</b>	Acacia shirleyi woodland to open forest commonly with Corymbia stockeri or C. clarksoniana scattered in the canopy. Scattered A. shirleyi, Larsenaikia ochreatea or Melaleuca stenostachya can occur in the very sparse subcanopy. The very sparse to sparse shrub layer can contain canopy species with Petalostigma banksii and Carissa spp. also common. The very sparse ground layer can contain Eragrostis spp., Cleistochloa spp., Digitaria spp. And Schoenus sparteus. Occurs on rocky knolls of lateritised quartzose sandstone. Not a Wetland. (BVG1M: 24a).
<b>Short description:</b>	Acacia shirleyi woodland on lateritic knolls
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 35, 35-10. Fox & Wilson (2004); w45-7c.
<b>Subregions:</b>	8, (6), (1)
<b>Protected areas:</b>	Olkola NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.7.2: The vegetation community 3.10.6x1a was amalgamated into this RE. North-easternmost extension of this ecosystem, which is widespread in Queensland and parts of the Northern Territory.
<b>Comments:</b>	3.7.2: Occurs in small patches. Restricted to south of bioregion.
<b>Estimated extent:</b> <sup>1</sup>	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>	

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### Regional ecosystem 3.7.3

**Description:** *Eucalyptus cullenii* (Cullen's ironbark) woodland usually with *E. tetrodonta* (Darwin stringybark). *Erythrophleum chlorostachys* (Cooktown ironwood) is also commonly present along with any of a number of *Corymbia* spp. The very sparse to sparse sub-canopy layer is composed most frequently of *Planchonia careya* (cocky apple) but can also include canopy species, *Petalostigma banksii* (smooth-leaved quinine) and *Alphitonia pomaderroides* (soapwood). The sparse to very sparse shrub layer commonly includes *Croton arnhemicus* (hard cascarilla) and canopy species. The grasses *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Eulalia mackinlayi* (silky browntop) and *Schizachyrium* spp. (fire grass) dominate the sparse to mid-dense ground layer. Occurs on erosional escarpments and rises on the edge of the bauxite plateaus. Not a Wetland. (BVG1M: 13a).

**Short description:** *Eucalyptus cullenii* +/- *E. tetrodonta* woodland on erosional escarpments and plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 72

**Subregions:** 7, 4

**Protected areas:** Batavia NP (CYPAL)

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 3.7.3: Habitat for the near threatened species *Acacia ommatosperma*.

**Comments:** 3.7.3: Occurs on shallow soils as well as marginally deeper soils that are heavily weathered. Ironstone pebbles are a conspicuous feature of this community, though outcrops are not common.

**Estimated extent:**<sup>1</sup> Pre-clearing 74000 ha; Remnant 2021 74000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.7.4

**Description:** *Eucalyptus tetrodonta* (Darwin stringybark) woodland to open woodland commonly with *Corymbia stockeri* and occasionally *Erythrophleum chlorostachys* (Cooktown ironwood). The very sparse subcanopy contains canopy species commonly with *Grevillea* spp., *Acacia rothii* and canopy species. The very sparse to sparse shrub layer contains canopy species and commonly *Acacia calyculata*. Dominants in the mid-dense grassy ground layer can include *Sarga plumosum*, *Heteropogon triticeus* and *Schizachyrium* spp. Occurs on ironstone knolls, escarpments and slopes. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus tetrodonta* and *Corymbia stockeri* woodland on ironstone knolls and slopes

**Supplementary descriptions:**

**Subregions:** 7, (8), (1), (4)

**Protected areas:** Oyala Thumotang NP (CYPAL), Olkola NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.7.4: RE 3.7.5 was malagated into this RE. May occur on marginally deeper soils as well as shallow soils on undulating rises. Ironstone pebbles on the surface are a conspicuous feature. Weipa plateau and Merluna Plain.

**Estimated extent:**<sup>1</sup> Pre-clearing 89000 ha; Remnant 2021 89000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.7.5

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.7.4. *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) and *Eucalyptus tetrodonta* usually dominate the sparse canopy (9-15m, occasionally 20m tall). *Melaleuca stenostachya* (fibre-barked teatree) usually dominates a very sparse sub-canopy tree layer (8-12m tall). *M. viridiflora* (broad-leaved teatree) is also frequently present. A sparse shrub layer (3-8m tall) is usually present. *Petalostigma banksii* (smooth-leaved quinine) and *C. stockeri* frequently dominate this layer. The ground layer is sparse to mid-dense and dominated by the grasses, *Schizachyrium fragile* (fire grass), *Sarga plumosum* (plume sorghum) and *Heteropogon triticeus* (giant speargrass). Occurs on ironstone knolls and erosional surfaces. Not a Wetland. (BVG1M: 14b).

Vegetation communities in this regional ecosystem include:

3.7.5a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.4. *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) and *Eucalyptus tetrodonta* (Darwin stringybark) usually dominate the sparse canopy (9-15m, occasionally 20m tall). *Melaleuca stenostachya* (fibre-barked teatree) usually dominates a very sparse sub-canopy tree layer (8-12m tall). *M. viridiflora* (broad-leaved teatree) is also frequently present. A sparse shrub layer (3-8m tall) is usually present. *Petalostigma banksii* (smooth-leaved quinine) and *C. stockeri* frequently dominate this layer. The ground layer is sparse to mid-dense and dominated by the grasses, *Schizachyrium fragile* (fire grass), *Sarga plumosum* (plume sorghum) and *Heteropogon triticeus* (giant speargrass). Occurs on ironstone knolls and erosional surfaces. Not a Wetland. (BVG1M: 14b).

3.7.5b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.38b. *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) co dominate the sparse canopy. *C. nesophila* (Melville Island bloodwood) is present at most sites as a subdominant canopy tree. The very sparse to sparse sub-canopy layer is dominated by the same *Eucalyptus* spp. and *Corymbia* spp. which are found in the canopy and by *Acacia rothii* (Roth's wattle), *Grevillea glauca* (bushman's clothes peg), *Parinari nonda* (nonda) and *Erythrophleum chlorostachys* (Cooktown ironwood). The shrub layer varies from mid-dense to very sparse and is composed of a variety of species which may vary from site to site. The most commonly encountered species in this layer are *Eucalyptus* spp. and *Corymbia* spp. that also occur in the tree layer and *Planchonia careya*. The ground layer is sparse to mid-dense and dominated by the grasses *Heteropogon triticeus* (giant speargrass), *Aristida* spp. (three-awned speargrass), *Schizachyrium* spp. (fire grass) and *Sarga plumosum* (plume sorghum). Occurs on lateritised plateaus & slopes. Not a Wetland. (BVG1M: 14b).

**Short description:** *Corymbia stockeri* subsp. *peninsularis* and *Eucalyptus tetrodonta* woodland on ironstone knolls and erosional surfaces

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.7.5: Habitat for the near threatened species *Acacia ommatosperma*.

**Comments:** 3.7.5: Restricted to south central Peninsula west of Musgrave.  
3.7.5b: Cape Weymouth.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.7.6

**Description:** *Melaleuca stenostachya* low woodland to woodland occasionally with *Acacia leptostachya*, *A. brassii*, *Corymbia stockeri*. Scattered emergents of *Eucalyptus tetradonta* and *C. stockeri* can sometimes occur. A sparse subcanopy and/or shrub layer can contain canopy species, commonly with *Petalostigma banksii* and occasionally heath species such as *Neofabricia myrtifolia* and *Jacksonia thesioides*. The very sparse to mid-dense ground layer is often dominated by *Schizachyrium fragile* and *Schoenus sparteus* +/- sedge species. Occurs on weathered and indurated erosional slopes. Not a Wetland. (BVG1M: 21b).

Vegetation communities in this regional ecosystem include:

3.7.6a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.6. *Melaleuca stenostachya* (fibre-barked teatree) dominates the sparse canopy (8-12m tall). *Acacia leptostachya* (slender wattle) is generally subdominant in both the canopy and sub-canopy layers. Scattered *Corymbia stockeri* and *Eucalyptus tetradonta* trees are occasionally present and may emerge above the canopy. *A. leptostachya*, *Jacksonia thesioides*, *Lithomyrtus retusa*, *Petalostigma banksii* (smooth-leaved quinine), *Melaleuca stenostachya* and *Neofabricia sericisepala* (yellow teatree) are the most abundant shrubs in the very sparse shrub layer (0.5-2m tall). The ground layer is very sparse. The graminoids, *Eriachne* spp. (wanderrie grass), *Thaumastochloa* spp., *Schizachyrium fragile* (fire grass) and *Schoenus sparteus* making up most of the biomass. Occurs on lateritic erosional slopes. Not a Wetland. (BVG1M: 21b).

3.7.6b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.6. *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) open woodland with a mid layer of *Melaleuca stenostachya* and *Petalostigma banksii*. Occurs on weathered and indurated Rolling Downs Group (Klr) geology in Central Peninsula. Not a Wetland. (BVG1M: 14d).

3.7.6x1: *Acacia humifusa* dwarf open heath, often with subdominants of *Lithomyrtus obtusa*, *Petalostigma pubescens*, *Grevillea pteridifolia* and *Hibbertia* spp. A range of graminoids can also occur including *Eriachne* spp., *Schizachyrium* spp. And *Heteropogon* spp. Occurs on laterite headlands. Not a Wetland. (BVG1M: 29a).

3.7.6x2: *Asteromyrtus lysicephala* (back to front bush), *Neofabricia myrtifolia* (yellow teatree), *Choriceras tricornis* and *Jacksonia thesioides* dwarf open shrubland to tall open shrubland. *Acacia calyculata*, *Hibbertia banksii*, *Leucopogon* spp. and *Persoonia falcata* are also usually present. Emergents of *A. brassii*, *Grevillea pteridifolia* or *J. thesioides* sometimes occur. The very sparse to sparse ground layer often contains seedlings of canopy spp. +/- *Schoenus sparteus* +/- *Cleistochloa* spp. Occurs on lateritised slopes and escarpments. Not a Wetland. (BVG1M: 29a).

3.7.6x2a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.6x2. *Melaleuca arcana* (Cape York paperbark), *Thryptomene oligandra* and *Asteromyrtus lysicephala* (back to front bush) dominate these dwarf open heaths, with *M. stenostachya* (fibre-barked teatree) emergents. *Schoenus sparteus* is the most frequent graminoid. Occurs on laterite knolls & hills. Not a Wetland. (BVG1M: 29a).

3.7.6x2b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.1. Semi deciduous vine thicket with *Terminalia subacroptera*, *Intsia bijuga*, *Hibiscus tiliaceus*, *Excoecaria agallocha* (milky mangrove), *Thespesia populneoides* and *Cathormion umbellatum* subsp. *moniliforme*. Occurs on laterite exposures on saline margins. Not a Wetland. (BVG1M: 2c).

3.7.6x2c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.6x1. A variety of dwarf shrubs (10-60cm tall) dominate this regional ecosystem, with *Acacia humifusa*, *Lithomyrtus obtusa*, *Grevillea pteridifolia* (toothbrush grevillea), *Neoroepora banksii*, *Petalostigma pubescens* (quinine) and *Jacksonia thesioides*, the most frequent. Occasional taller shrubs (1-2m) may be present in sheltered positions. The ground layer is frequently indistinct from the dwarf shrub layer. The dominant grasses are *Eremochloa bimaculata*, *Heteropogon triticeus* (giant speargrass) and *Sarga plumosum* (plume sorghum). Occurs on laterite headlands. Not a Wetland. (BVG1M: 29a).

3.7.6x3: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.6x2. *Neofabricia myrtifolia* (yellow teatree) dominates the very sparse shrub layer (3-4m tall). *Acacia calyculata*, *Jacksonia thesioides*, *Lithomyrtus retusa*, *Acacia brassii* and *Grevillea pteridifolia* (toothbrush grevillea) are frequent subdominant shrubs. *Leucopogon lavarackii* occurs frequently as a low shrub (0.5m tall). The ground is mainly bare, with only occasional graminoids present. Occurs on lateritised sandstone slopes. Not a Wetland. (BVG1M: 29a).

**Short description:** *Melaleuca stenostachya* +/- *Acacia leptostachya* woodland on lateritic erosional slopes

### Supplementary descriptions:

**Subregions:** 7, 4, 1, 8, (6)

**Protected areas:** Oyala Thumotang NP (CYPAL), Apudthama NP (CYPAL), Olkola NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Oyala Thumotang RR

**Extent in reserves:** High

**Wetland:** Not a Wetland

<b>Special values:</b>	3.7.6: Potential habitat for NCA listed species: <i>Acacia ommatosperma</i> .
<b>Comments:</b>	3.7.6: The vegetation community 3.10.6x1b was amalgamated in to this RE. 3.7.6a: RE 3.10.6x1b was amalgamated into this RE. 3.7.6x1: Was previously mapped as 3.7.6x2c. Headlands on the east coast north of Lockhardt River. 3.7.6x2: REs 3.10.17, 3.7.6x2a and 3.7.6x3 were amalgamated into this RE. Catchments of the upper Jardine and Pascoe River. 3.7.6x2b: Restricted to Saibai Island. Only a few remnants remain and may not reflect the original composition after an extensive period of nearby traditional occupation. 3.7.6x3: West of Lockhart River.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 48000 ha; Remnant 2021 48000 ha
<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 3.8.1

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.8.2d. An uneven, closed canopy (20-35m tall) is formed from a diverse group of species. *Argyrodendron peralatum*, *A. polyandrum* (red tulip oak), *Beilschmiedia obtusifolia*, *Castanospermum australe* (black bean), *Dysoxylum gaudichaudianum*, *Terminalia sericocarpa* (damsonwood), *Toona ciliata* (red cedar), *Aleurites moluccanus* (candlenut), *Ficus* spp. and *Miliusa horsfieldii* are frequently present in the canopy. *Alstonia scholaris* (milky pine) (29-45m tall) are frequent emergent trees. A dense to mid-dense, sub-canopy tree layer (10-20m tall) is usually present and composed of a variety of species with *Tritaxis australiensis*, *Archidendron ramiflorum*, *Carronia protensa* and *Elattostachys microcarpa* among the most frequent species. A mid-dense to sparse, low tree layer (2-6m tall) frequently with *Citronella moorei*, *Cleistanthus apodus*, *Dichapetalum papuanum*, *Leea novoguineensis* and *Phaleria octandra* is also usually present. Robust lianas such as *Austrosteenisia blackii* and *Calamus caryotoides*, and vascular epiphytes are frequently present, but not abundant. Some canopy trees are buttressed, and the majority are evergreen. The ground layer is very sparse, with scattered *Alocasia macrorrhizos* and *Blechnum* spp. Occurring in places. Occurs on basalt hillslopes and plains. Not a Wetland. (BVG1M: 1a).

**Short description:** Complex mesophyll vine forest on basalt lowlands

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.8.1: High diversity of vascular plants, many with restricted distributions. Near threatened species in this community include *Syzygium malaccense*.

**Comments:** 3.8.1: This RE does not occur in Cape York Peninsula bioregion. Occurs in the Wet Tropics bioregion near Shipton's Flat as a Cape York Peninsula bioregion outlier. It is floristically closer to Cape York Peninsula communities than to Wet Tropics communities.

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

**VM class:** Endangered

**Biodiversity status:** Endangered

**Biodiversity status notes:**

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## Regional ecosystem 3.8.2

**Description:** Semi-deciduous notophyll to mesophyll vine forest commonly with *Cryptocarya* spp., *Buchanania arborescens* (native mango), *Bombax ceiba*, *Ficus alpipila* var. *alpipila* and *Terminalia sericocarpa* (Damsonwood). The evergreen *Alstonia scholaris* (milky pine) may occur as either a canopy or emergent tree. A sub-canopy tree layer is usually present and composed of a variety of species. A low tree/ shrub layer is also usually present. A semi-evergreen notophyll variant dominated by *Acacia* spp. also occurs. Occurs on basalt rises and cones. Not a Wetland. (BVG1M: 2d).

Vegetation communities in this regional ecosystem include:

3.8.2a: Semi-deciduous notophyll/microphyll vine forest. An uneven, closed canopy is formed with *Alstonia*

*scholaris* (milky pine), *Beilschmiedia obtusifolia*, *Cryptocarya hypospodia*, *C. rhodosperma*, *Buchanania arborescens* (native mango) and *Dysoxylum pettigrewianum* as frequent canopy species. *Bombax ceiba*, *Ficus albipila* var. *albipila* and *Terminalia sericocarpa* (Damsonwood) can occur as deciduous emergent trees along with the evergreen *A. scholaris*. A sparse to mid-dense sub-canopy tree layer is usually present and composed of canopy species plus *Pisonia umbellifera*, *Chionanthus ramiflorus* (native olive), *Calophyllum sil*, *Myristica insipida* and *Ptychosperma elegans*. A low tree/shrub layer is present with *Glycosmis trifoliata*, *Cleistanthus apodus* and *Tritaxis australiensis* the most frequent species. Robust lianas such as *Austrosteenisia blackii* and *Piper caninum*, and vascular epiphytes are frequently present, but not abundant. The ground layer is very sparse, and composed predominantly of seedlings. Occurs on basalt rises. Not a Wetland. (BVG1M: 2d).

3.8.2b: Evergreen to semi-deciduous vine forest dominated by *Buchanania arborescens* (native mango), *Acacia polystachya* (wattle), *Canarium australianum* (mango bark), *Beilschmiedia obtusifolia* (blush walnut) and *Cryptocarya hypospodia* (northern laurel) with *Podocarpus grayae* (northern brown pine) and *Syzygium forte* (white apple). *S. bamagense* (Bamaga satinash) is also dominant where present and can also be emergent. The sub-canopy often includes *Cryptocarya cunninghamii*, *Garcinia dulcis* (Claudie mangosteen), *Polyscias elegans* (celery wood) and *Ptychosperma elegans* (solitaire palm). The vines *Flagellaria indica* (supplejack) and *Calamus* spp. (lawyer cane) are often present. The shrub layer commonly includes *Atractocarpus sessilis* (native Gardenia), *Aglaia euryanthera*, and *Cleistanthus* spp. as well as juvenile canopy species. The sparse ground layer often has *Dianella* spp. and seedlings. Occurs on basalt soils in areas disturbed by cyclones or fires. Not a Wetland. (BVG1M: 5d).

3.8.2c: Deciduous vine thicket on basalt slopes and plateaus. On the plateau top *Corymbia tessellaris* (Moreton Bay Ash), *C. clarksoniana* (Clarkson's bloodwood) and *Eucalyptus leptophleba* (Mt. Molloy box) are common in the canopy, though often as emergents. The canopy and understory is dominated by deciduous vine thicket species, including *Canarium australianum* (mango bark), *Bombax ceiba*, *Commersonia bartramia* (brown kurrajong), *Cochlospermum gillivraei* (kapok) and *Strychnos lucida*. The prickly vine *Ziziphus oenoplia* can be quite prominent and *Entada phaseoloides* (matchbox bean) and *Smilax australis* are also common. The vine thickets community becomes dominant on the rocky slopes off the plateau edge. Slopes and crest of basalt cones. Not a Wetland. (BVG1M: 2d).

3.8.2d: Complex mesophyll vine forest. An uneven, closed canopy is formed from a diverse group of species. *Argyrodendron peralatum*, *A. polyandrum* (red tulip oak), *Beilschmiedia obtusifolia*, *Castanospermum australe* (black bean), *Dysoxylum gaudichaudianum*, *Terminalia sericocarpa* (damsonwood), *Toona ciliata* (red cedar), *Aleurites moluccanus* (candlenut), *Ficus* spp. and *Miliusa horsfieldii* are frequently present in the canopy. *Alstonia scholaris* (milky pine) are frequent emergent trees. A dense to mid-dense, sub-canopy tree layer is usually present and composed of a variety of species with *Tritaxis australiensis*, *Archidendron ramiflorum*, *Carronia protensa* and *Elattostachys microcarpa* among the most frequent species. A mid-dense to sparse, low tree layer frequently with *Citronella moorei*, *Cleistanthus apodus*, *Dichapetalum papuanum*, *Leea novoguineensis* and *Phaleria octandra* is also usually present. Robust lianas such as *Austrosteenisia blackii* and *Calamus caryotoides*, and vascular epiphytes are frequently present, but not abundant. Some canopy trees are buttressed, and the majority are evergreen. The ground layer is very sparse, with scattered *Alocasia macrorrhizos* and *Blechnum* spp. Occurring in places. Occurs on basalt hillslopes and plains. Not a Wetland. (BVG1M: 1a).

3.8.2x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.8.5a. An uneven, closed canopy (up to 15m tall) is formed with *Bombax ceiba* (kapok), *Alstonia spectabilis* (hard milkwood), *Semecarpus australiensis*, *Terminalia catappa* and *Syzygium suborbiculare* (lady apple) frequent canopy species. A sub-canopy tree layer is usually present and composed of *Alectryon repandodentatus*, *Abutilon auritum*, *Dracaena angustifolia*, *Macaranga tanarius*, *Cerbera manghas*, *Hibiscus tiliaceus*. A low tree/ shrub layer (most commonly 2 tall) is present with *Amorphophallus paeoniifolius*, *Abroma molle*, *Premna tomentosa*, *Capparis quiniflora*, *Tabernaemontana pandacqui*, \**Senna pendula* var. *glabrata*, *Diospyros hebecarpa*, *Myristica insipida*, *Guettarda speciosa*, *Leea novoguineensis*, *Curcuma australasica*, *Wollastonia biflora*, *Phaleria octandra*, *Uvaria rufa*, *Murraya paniculata*, *Mallotus philippensis*. Vines such as *Canavalia papuana*, *Flagellaria indica*, *Cayratia cardiophylla*, *Mucuna gigantea*, *Abrus precatorius*, *Stigmaphyllon timoriense* and *Derris rubrocalyx* subsp. *Rubrocalyx* are present. The ground layer is dominated by *Oplismenus* spp. And *Commelina ensifolia*. Basalt islands of Torres Strait. Not a Wetland. (BVG1M: 2d).

3.8.2x2: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.8.2c. Deciduous vine thicket on basalt slopes and plateaus. On the plateau top *Corymbia tessellaris* (Moreton Bay Ash), *C. clarksoniana* (Clarkson's bloodwood) and *Eucalyptus leptophleba* (Mt. Molloy box) are common in the canopy, though often as emergents. The canopy and understory is dominated by deciduous vine thicket species, including *Canarium australianum* (mango bark), *Bombax ceiba*, *Commersonia bartramia* (brown kurrajong), *Cochlospermum gillivraei* (kapok) and *Strychnos lucida*. The prickly vine *Ziziphus oenoplia* can be quite prominent and *Entada phaseoloides* (matchbox bean) and *Smilax australis* are also common. The vine thickets community becomes dominant on the rocky slopes off the plateau edge. RE is defunct. Not a Wetland. (BVG1M: 2d).

<b>Short description:</b>	Semi-deciduous notophyll and/or microphyll vine forest on basalt
<b>Supplementary descriptions:</b>	
<b>Subregions:</b>	2, 6, (7), (7.9), (5)
<b>Protected areas:</b>	Daarrba NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Biniirr NP (CYPAL)
<b>Extent in reserves:</b>	Medium
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	<p>3.8.2: The vulnerable plant species <i>Arenga australasica</i>, and near threatened plant species <i>Donella lanceolata</i> occur in this regional ecosystem. High diversity of vascular plants, many with restricted distributions.</p> <p>3.8.2d: High diversity of vascular plants, many with restricted distributions. Near threatened species in this community include <i>Syzygium malaccense</i>.</p> <p>3.8.2x1: The endangered plant <i>Alectryon repandodentatus</i> has been recorded in the Regional Ecosystem.</p>
<b>Comments:</b>	<p>3.8.2: Vegetation community 'b' is a variation of the Regional Ecosystem caused by disturbances such as fires and cyclones. Restricted to Mount Webb area. Occurs also in drier northern Wet Tropics bioregion.</p> <p>3.8.2a: Some canopy trees are buttressed, and the majority (70%) are evergreen. Restricted to Mount Webb area. Occurs also in drier northern Wet Tropics bioregion.</p> <p>3.8.2b: South east of the bioregion in the Mt. Webb area, also present in Wet Tropics bioregion.</p> <p>3.8.2c: Was previously mapped as 3.8.2x2. Habitat for <i>Dendrobium bigibbum</i> (Cooktown Orchid) and Palm Cockatoos. Restricted to Balclutha Nature Reserve (Lava Hill), SE of Coen, CYP.</p> <p>3.8.2d: Was previously mapped as 7.8.3b. This vegetation community is only mapped in the Wet Tropics Bioregion but is part of the RE 3.8.2. Occurs in the Wet Tropics bioregion near Shipton's Flat as a Cape York Peninsula bioregion outlier. It is floristically closer to Cape York Peninsula communities than to Wet Tropics communities.</p> <p>3.8.2x1: Restricted to Torres Strait Islands. Subject to weed incursions including cultivated plants such as <i>Delonix regia</i> (Poinciana), <i>Mangifera indica</i> (mango), <i>Musa acuminata</i> (banana), *<i>Passiflora suberosa</i>, *<i>P. pallida</i>, <i>Carica papaya</i> (pawpaw) and to clearing for gardens.</p> <p>3.8.2x2: Habitat for <i>Dendrobium bigibbum</i> (Cooktown Orchid) and Palm Cockatoos. Restricted to Balclutha Nature Reserve (Lava Hill), SE of Coen, CYP.</p>
<b>Estimated extent:</b> <sup>1</sup>	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 3.8.3

**Description:** *Eucalyptus leptophleba* (Molloy red box) woodland often with *Corymbia clarksoniana* (Clarkson's bloodwood) and/or *C. tessellaris* (Moreton Bay ash). Occurs on basalt flows. Not a Wetland. (BVG1M: 11c).

Vegetation communities in this regional ecosystem include:

3.8.3a: *Eucalyptus leptophleba* (Molloy red box) woodland with *Corymbia clarksoniana* (Clarkson's bloodwood) and *C. tessellaris* (Moreton Bay ash) frequently present. *C. clarksoniana* can sometimes be dominant. Other *Eucalyptus* spp. may also be occasionally present. The sub-canopy and shrub layers are very sparse and usually often contain *Acacia crassicaarpa* (spoon tree) and *A. flavescens* along with canopy species. The ground layer is mid-dense and dominated by the grasses, *Heteropogon contortus* (black speargrass), *Themeda triandra* (kangaroo grass). Frequent native forbs are *Crotalaria montana*, *C. calycina* and *Glycine* spp. Occurs on basalt flows. Not a Wetland. (BVG1M: 11c).

3.8.3b: *Corymbia tessellaris* and *C. clarksoniana* woodland to open forest, often with *Eucalyptus leptophleba* present. *Acacia flavescens* is usually present with other *Acacia* spp. common. The very sparse to mid-dense subcanopy is usually dominated by *Acacia* spp. But also can include canopy species and *Ficus* spp. The sparse to mid-dense shrublayer contains canopy species with *Cycas media* often present. The very sparse to dense ground layer is often dominated by *Imperata cylindrica* (blady grass). Occurs on coastal ranges and lowlands. Not a Wetland. (BVG1M: 9c).

**Short description:** *Eucalyptus leptophleba* or *Corymbia clarksoniana* +/- *C. tessellaris* woodland on basalt flows

**Supplementary descriptions:**

**Subregions:** 2, 5, 6

**Protected areas:** Biniirr NP (CYPAL), Daarrba NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 3.8.3: Potential habitat for NCA listed species: *Cucumis costatus*, *Dendrobium johannis*.

**Comments:** 3.8.3: Occurs between Cooktown and Hopevale and on Lava Hill near Port Stewart. Occurs in the Einasleigh Uplands as RE 9.8.2. Mostly cleared for cropping and intensive grazing in the 1960s. Remnants continue to be degraded by weed expansion.  
3.8.3a: Naturalised weeds *Themeda quadrivalvis* (grader grass)\*. *Crotalaria goreensis*\* and *Mesosphaerum suaveolens*\* are abundant exotic forbs.  
3.8.3b: Mt. Webb area.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Over 70% of pre-clear extent threatened by weed invasion and further clearing.

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## Regional ecosystem 3.8.4

**Description:** *Heteropogon contortus* or *Themeda triandra* closed tussock grasslands often with *Mnesithea rottboellioides*. Occurs on basalt cones and rises. Not a Wetland. (BVG1M: 32b).

Vegetation communities in this regional ecosystem include:

3.8.4a: *Heteropogon contortus* (black spear-grass) closed tussock grassland usually with *Setaria surgens* and *Mnesithea rottboellioides* sub-dominant. *Indigofera* spp. and *Crotalaria* spp. and *Grewia savannicola* are also usually present. Scattered emergent shrubs can include *Lophostemon suaveolens*, *Flueggea virosa* subsp. *Melanthoides*. Occurs on basalt cones and occasionally on basalt rises. Not a Wetland. (BVG1M: 32b).

3.8.4b: *Themeda triandra* (kangaroo grass) and/or *Imperata cylindrica* (blady grass) and/or *Mnesithea rottboellioides* (northern canegrass) closed tussock grasslands. Other ground cover species are *Anisomeles* sp., *Cissus* sp., *Ipomoea pes-caprae* and *Jacquemontia paniculata*. Scattered emergent shrubs include *Wrightia pubescens* subsp. *penicillata* (quinine), *Litsea glutinosa*, *Morinda citrifolia* and *Flueggea virosa* subsp. *melanthoides*, with occasional emergents of *Barringtonia calyptrata* to 10m. Occurs on basalt hill slopes. Not a Wetland. (BVG1M: 32b).

**Short description:** *Heteropogon contortus* or *Themeda triandra* closed tussock grasslands on basalt cones and rises

**Supplementary descriptions:**

**Subregions:** 3, 2, 5

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 3.8.4: Potential habitat for NCA listed species: *Apluda mutica*.

**Comments:** 3.8.4: Near Hopevale and on basaltic Torres Strait islands.  
3.8.4a: Restricted to basalt cones and hills around Hopevale. Common exotic species include *Melinis repens*, *Mitracarpus hirtus*, *Mesosphaerum suaveolens* and *Tridax procumbens*.  
3.8.4b: Basaltic islands in the Torres Strait. Large areas of this community in the Torres Strait are heavily invaded by weed species, including *Lantana camara*, *Passiflora foetida*, *Senna alata*, *Calopogonium mucunoides*, *Sida retusa*, *S. rhombifolia*, *Macroptilium atropurpurea*, *Clitoria ternatea* and *Bambusa* spp. An appropriate fire regime may help to re-establish natural condition. Some areas have also suffered severe topsoil erosion.

**Estimated extent:**<sup>1</sup> Pre-clearing 700 ha; Remnant 2021 600 ha

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** Rare ecosystem < 1000ha pre-clearing extent and changes in fire regimes have resulted in invasion by woody species.

## Regional ecosystem 3.8.5

**Description:** Semi-deciduous and deciduous notophyll vine forest. Occurs on basaltic islands. Not a Wetland. (BVG1M: 2d).

Vegetation communities in this regional ecosystem include:

3.8.5a: Semi-deciduous and deciduous notophyll vine forest often with *Bombax ceiba*, *Diospyros hebecarpa*, *Alectryon repandodentatus*, *Adenanthera pavonina* and *Wrightia pubescens* subsp. *penicillata*. *Bombax ceiba* and *Coco nucifera* can sometimes occur as emergents. A mid-dense to dense subcanopy and/or shrub layer of canopy species often occurs. *Eugenia reinwardtiana*, *Phaleria octandra*, *Paleome angustifolia*, *Glycosmis trifoliata* and *Micromelum minutum* are also common in the shrub layer. Commonly occurring vine species are *Flagellaria indica*, *Smilax* spp. and *Abrus precatorius*. Occurs on basalt hills. Not a Wetland. (BVG1M: 2d).

3.8.5b: Deciduous vine forest of *Gyrocarpus americanus* (helicopter tree), *Cathormion umbellatum* subsp. *moniliforme*, *Garuga floribunda* var. *floribunda*, *Mimusops elengi* (tanjong), *Wrightia laevis*, *Diospyros hebecarpa* and *Bombax ceiba*. The more open sub-canopy contains *D. hebecarpa*, *Celtis philippensis*, *Alectryon repandodentatus* and *Manilkara kauki* (Wongai plum). *Eugenia reinwardtiana*, *Glycosmis trifoliata* and *Micromelum minutum* are also common in the shrub layer. Occurs in basalt gullies. Not a Wetland. (BVG1M: 2d).

3.8.5c: Deciduous vine thicket with *Garuga floribunda* var. *floribunda*, *Gyrocarpus americanus*, *Bombax ceiba* and *Antiaris toxicaria* var. *macrophylla*. The sparse sub-canopy contains *Cleistanthus peninsularis*, *Drypetes deplanchei*, *Eugenia reinwardtiana* and *Alectryon repandodentatus*. The sparse shrub layer overlies basalt talus. Occurs on escarpments on basalt and scoria cones. Not a Wetland. (BVG1M: 2d).

3.8.5d: Low vine forest and vine thicket with *Barringtonia calyptata*, *Macaranga tanarius*, *Hibiscus tiliaceus*, *Cerbera manghas*, *Myristica insipida*, *Planchonella obovata*, *Alstonia spectabilis* and *Premna dallachyana* with vines such as *Mucuna gigantea* and *Entada phaseoloides*. *Bombax ceiba* may occur as a sparse emergent in more successional stages. Occurs in sheltered gullies on basaltic cones. Not a Wetland. (BVG1M: 2d).

3.8.5e: Complex of semi deciduous vine thicket and low open forest of *Pandanus* spp. +/- *Hibiscus tiliaceus*. The vine thicket component is as described by 3.8.5c with *Manilkara kauki* particularly prominent in the canopy. Occurs on basalt escarpment. Not a Wetland. (BVG1M: 2d).

**Short description:** Semi-deciduous and deciduous notophyll vine forest on the basaltic islands of the Torres Strait

**Supplementary descriptions:**

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 3.8.5: Habitat for the endangered plant species *Alectryon repandodentatus*.

**Comments:** 3.8.5: Eastern Island Group of Torres Strait.

3.8.5a: Mer and Erub Islands, Torres Strait.

3.8.5b: Erub Island, Torres Strait.

3.8.5c: Erub and Mer Islands, Torres Strait.

3.8.5d: Mer Island, Torres Strait. The development of these communities is controlled by both soil limitations and fire. \**Mangifera indica* (mango) is a naturalised species in this community.

3.8.5e: Mer Island, Torres Strait.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

## Regional ecosystem 3.9.1

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.39. *Eucalyptus tetrodonta* +/- *Corymbia clarksoniana* +/- *C. confertiflora* woodland on erosional plains. RE defunct. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia clarksoniana* +/- *C. confertiflora* woodland on erosional plains

**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 3.9.2

**Description:** Open woodland to low open woodland of *Eucalyptus chlorophylla*. The subcanopy and shrublayers are often absent to sparse. *Vachellia ditricha* low open woodland sometimes occurs. Occurs on clay undulating plains. Not a Wetland. (BVG1M: 18c).

Vegetation communities in this regional ecosystem include:

3.9.2a: *Eucalyptus chlorophylla* open woodland to low open woodland. *Corymbia clarksoniana* can occur as a subdominant with other scattered *Corymbia* spp. present. *E. chlorophylla* can also occur as an emergent. A very sparse subcanopy can include *Hakea persiehana*, *Melaleuca viridiflora* and *Acacia* spp. The very sparse shrublayer usually has *M. viridiflora*, *Dolichandrone alternifolia* and juvenile canopy species. The sparse to dense grassy ground layer often contains *Heteropogon contortus*, *Sarga plumosum*, *Themeda arguens* and *Dichanthium sericeum*. Occurs on clay undulating plains. Not a Wetland. (BVG1M: 18c).

3.9.2b: *Vachellia ditricha* (fish poison tree) low open woodland. Scattered emergent *Eucalyptus* spp. or *Corymbia* spp. (10-14m tall) are often present. *V. ditricha* is also frequently encountered in the very sparse shrub layer. The mid-dense to dense ground layer is usually dominated by the grasses *Themeda arguens*, *Digitaria* spp. and *Sarga plumosum* (plume sorghum). Occurs on clay undulating plains. Not a Wetland. (BVG1M: 27a).

3.9.2x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.36a. *Eucalyptus tetrodonta* (Darwin stringybark) predominates, forming a distinct but discontinuous sparse canopy (17-26m tall). *Corymbia nesophila* (Melville Island bloodwood) and *C. clarksoniana* (Clarkson's bloodwood) may be subdominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) may occur just below the canopy, occasionally forming a mid-dense layer. sub-canopy trees (4-15m tall) are sometimes present. A sparse low shrub layer (0.5-2m tall) composed of young trees and shrubby regrowth is often present. The ground layer can be very sparse to mid-dense and is dominated by grasses. The primary species in this layer are *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panics), *Alloteropsis semialata* (cockatoo grass) and *Thaumastochloa* spp. Occurs on stony hills of fine-grained Cretaceous sediments. Not a Wetland. (BVG1M: 14a).

3.9.2x2: *Eucalyptus tetrodonta* (Darwin stringybark) woodland to open forest, commonly with *E. cullenii*, *E. crebra* or *Corymbia stockeri* (gum-topped bloodwood). Other *Eucalyptus* spp. and *Erythrophleum chlorostachys* (Cooktown ironwood) may be present in the canopy and are occasionally subdominant. A very sparse to sparse sub-canopy layer often has canopy species. The very sparse shrub layer has canopy species with *Coelospermum reticulatum*, *Grevillea parallela*. The grasses *Themeda triandra* (kangaroo grass), *Sarga plumosum* (plume sorghum), *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass) and *Schizachyrium* spp. (fire grass) dominate the sparse to mid-dense, ground layer. Occurs on stony hills of Cretaceous fine-grained sediments. Not a Wetland. (BVG1M: 13a).

3.9.2x3: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.9.2x2. *Eucalyptus cullenii* (Cullen's ironbark) dominates the sparse canopy (14-25m tall). Other *Eucalyptus* spp. or *Corymbia* spp. particularly *E. tetrodonta* (Darwin stringybark) and *Corymbia disjuncta* (cabbage gum) may be present and are occasionally subdominant. *Erythrophleum chlorostachys* (Cooktown ironwood) is also frequently subdominant. The very sparse to sparse sub-canopy layer (4-10m tall) is composed most frequently of *Planchonia careya* (cocky apple), *C. disjuncta*, *Eucalyptus tetrodonta*, *Petalostigma banksii* (smooth-leaved quinine) and *Alphitonia pomaderroides* (soapwood). The sparse to very sparse shrub layer (0.5-3m tall) frequently includes *Croton*

arnhemicus (hard cascarilla), *Erythrophleum chlorostachys*, *Decaschistia peninsularis*, *Corymbia disjuncta*, *C. nesophila* (Melville Island bloodwood) and *Planchonia careya* shrubs. The grasses *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Eulalia mackinlayi* (silky browntop) and *Schizachyrium* spp. (fire grass) dominate the sparse to mid-dense ground layer. Occurs on fine-grained sediments on edge of Tertiary plateau. Not a Wetland. (BVG1M: 13a).

3.9.2x4: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.9.2x2. *Corymbia stockeri* (gum-topped bloodwood) dominates the sparse canopy (6-22m tall). *Eucalyptus tetrodonta* (Darwin stringybark) is present at most sites as a subdominant canopy tree. *E. cullenii* (Cullen's ironbark) and sometimes *E. crebra* (narrow-leaved ironbark) are occasionally present as subdominant trees. The very sparse to sparse sub-canopy layer (2-10m tall) is dominated by *Eucalyptus* spp. and *Melaleuca stenostachya* (fibre-barked teatree). The very sparse to sparse shrub layer (0.1-3m tall) is composed of a variety of species that may dominate at different sites, *C. stockeri*, *E. tetrodonta*, *M. stenostachya* and *Petalostigma banksii* (smooth-leaved quinine) the most frequent dominants. The ground layer is sparse to mid-dense, and dominated by the grasses, *Triodia microstachya* (spinifex), *Eriachne* spp. (wanderrie grass), *Aristida* spp. (three-awned speargrass), *Schizachyrium* spp. (fire grass), *Heteropogon triticeus* (giant spear grass) and *Digitaria* spp. Frequently large areas of the ground surface are covered by sandstone rocks. Occurs on fine grained sedimentary hills and ridges. Not a Wetland. (BVG1M: 14d).

3.9.2x5: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.9.2x2. *Eucalyptus tetrodonta* (Darwin stringybark) is always present in the sparse canopy (13-22m tall). It usually predominates or is codominant with *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) and/or *C. setosa* subsp. *pedicellaris* (rough-leaved bloodwood). *Erythrophleum chlorostachys* (Cooktown ironwood) is also often present in both the canopy and the very sparse to sparse sub-canopy tree layer (3-12m tall). *Grevillea glauca* (bushman's clothes peg), *G. parallela* (silver oak), *Neofabricia sericisepala*, *Petalostigma banksii* (smooth-leaved quinine), *Adenanthera abrosperma* (bead tree), *C. stockeri* subsp. *peninsularis*, *C. setosa* subsp. *pedicellaris*, *E. tetrodonta* and *Melaleuca nervosa* (woodland paperbark) are other frequent sub-canopy trees. A very sparse to sparse shrub layer (0.2-2.5m tall) is composed of a variety of young trees and shrubby regrowth. The ground layer is usually sparse to mid-dense and dominated by grasses usually *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (panic), *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Thaumatococcus* spp. Occurs on fine-grained sandstones and siltstones. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus chlorophylla* woodland to open woodland on undulating clay plains

**Supplementary descriptions:**

**Subregions:** 7, 6, (8), (5), (1), (2.4), (2.6)

**Protected areas:** Oyala Thumotang NP (CYPAL), Olkola NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Alwal NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.9.2: Central bioregion.  
3.9.2a: *E. chlorophylla* can also occur as an emergent. Central bioregion.  
3.9.2b: This vegetation community was previously mapped as RE 3.3.44. Widely scattered patches.  
3.9.2x1: South of the bioregion.  
3.9.2x2: RE 3.9.2x3, 3.9.2x4 has been amalgamated in to this RE. On hills and slope surrounding the Kimba Plateau.  
3.9.2x5: Western side of Great Dividing Range.

**Estimated extent:**<sup>1</sup> Pre-clearing 145000 ha; Remnant 2021 143000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

### Regional ecosystem 3.9.3

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.41. *Corymbia clarksoniana* woodland +/- *Melaleuca viridiflora* on erosional plains. RE defunct. Not a Wetland. (BVG1M: 9e).

**Short description:** *Corymbia clarksoniana* woodland +/- *Melaleuca viridiflora* on erosional plains

**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 3.9.4

**Description:** *Eucalyptus leptophleba* (Molloy red box) or *Eucalyptus platyphylla* (poplar gum) open woodlands or woodlands. *Corymbia dallachiana* (Dallachy's gum), *C. clarksoniana* (Clarkson's bloodwood) or *Erythrophleum chlorostachys* (Cooktown ironwood) may be present in the canopy. A very sparse sub-canopy tree layer is occasionally present. A very sparse shrub layer is sometimes present. Occurs on rolling plains. Not a Wetland. (BVG1M: 18c).

Vegetation communities in this regional ecosystem include:

3.9.4a: *Eucalyptus leptophleba* (Molloy red box) open woodland to woodland. Several *Corymbia* spp. can occasionally occur as sub-dominants along with *Melaleuca viridiflora* and *M. stenostachya*. A very sparse sub-canopy is occasionally present in the open woodlands but more frequently in the woodlands. A very sparse shrub layer is usually present in which *Planchonia careya* (cocky apple), *Antidesma ghaesembilla* and *Grewia savannicola* (dog's balls) are the most commonly encountered species. The ground layer is mid-dense to dense and dominated by a variety of grasses including *Heteropogon triticeus* (giant speargrass), *H. contortus* (black speargrass), *Sarga plumosum* (plume sorghum) and *Capillipedium parviflorum* (scented top). Occurs on rolling plains. Not a Wetland. (BVG1M: 18c).

3.9.4b: *Eucalyptus platyphylla* (poplar gum) open woodland. Scattered trees of *Corymbia clarksoniana* (Clarkson's bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) are often present in the canopy. A few sub-canopy trees may be present. Isolated low shrubs of *Antidesma ghaesembilla*, *Planchonia careya* (cocky apple) and canopy species may be present but rarely form a conspicuous layer. The ground layer is mid-dense to dense and dominated by grass species predominantly *Heteropogon contortus* (black speargrass) *H. triticeus* (giant spear-grass) and *Themeda triandra* (kangaroo grass). Occurs on rolling plains. Not a Wetland. (BVG1M: 18c).

**Short description:** *Eucalyptus leptophleba* +/- *Corymbia dallachiana* or *Eucalyptus platyphylla* open woodland on rolling plains

### Supplementary descriptions:

**Subregions:** 7, (4)

**Protected areas:** Oyala Thumotang NP (CYPAL), Batavia NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 3.9.4: Potential habitat for NCA listed species: *Acacia ommatosperma*, *Arthraxon australiensis*.

**Comments:** 3.9.4: Widespread. *Eucalyptus chlorophylla* (shiny-leaved box) is occasionally present in this regional ecosystem. Where it occurs, it usually replaces *E. leptophleba*. Central Peninsula. Potentially threatened with clearing for more intensive grazing.  
3.9.4a: Widespread. Central Peninsula. Potentially threatened with clearing for more intensive grazing.  
3.9.4b: *E. platyphylla* may be completely leafless at the end of the dry season. Central Peninsula.

**Estimated extent:**<sup>1</sup> Pre-clearing 252000 ha; Remnant 2021 252000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.9.5

**Description:** *Corymbia papuana* open woodland, commonly with *Eucalyptus leptophleba* (Molloy red box) present. Shrubs and low trees are usually absent and the sparse to dense ground layer is dominated by *Themeda arguens*, *Heteropogon triticeus* (giant speargrass) and *Capillipedium parviflorum* (scented top). *Heteropogon contortus* (black speargrass), *Dichanthium sericeum* subsp. *sericeum* (Queensland blue grass), *Sarga plumosum* (plume sorghum) and *Mnesithea rottboellioides* (northern cane grass) can dominate some areas. Occurs on rolling plains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Corymbia papuana* open woodland on rolling plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 118

**Subregions:** 7, (4)

**Protected areas:** Oyala Thumotang NP (CYPAL), Batavia NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.9.5: Central Peninsula. Increased development pressure is possible in the future, due to live cattle exports through Weipa. More intensive grazing and establishment of exotic plant species are threatening processes.

**Estimated extent:**<sup>1</sup> Pre-clearing 32000 ha; Remnant 2021 32000 ha

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:** Threatening processes other than clearing.

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### Regional ecosystem 3.9.6

**Description:** *Terminalia aridicola* subsp. *chillagoensis* (arid peach) and *T. platyphylla* (black plum) low open woodland to low woodland. Scattered emergent *Bombax ceiba* may occur. The subcanopy is generally absent. The very sparse to sparse shrub layer usually contains *Grewia savannicola* (dog's balls), *Antidesma* spp. And *Dendrolobium umbellatum*. The mid-dense to dense ground layer is dominated by the grasses *Themeda arguens*, *Heteropogon contortus* (black speargrass) and *Desmodium* spp., *Scleria* spp., and *Fimbristylis* spp. Occurs on heavy clay. Contains Palustrine. (BVG1M: 27a).

**Short description:** *Terminalia aridicola* subsp. *chillagoensis* and *T. platyphylla* low open woodland on clay soils

**Supplementary descriptions:** Neldner and Clarkson (in prep), 119

**Subregions:** 6

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Contains Palustrine

**Special values:**

**Comments:** 3.9.6: Occurs in the vicinity of Laura to Lakefield. More intensive cattle grazing probable in the future. Thickening up of some patches has occurred, probably due to a decreased fire frequency.

**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 3.9.7

**Description:** *Piliostigma malabaricum* (bean tree) low open woodland. Most plants of this species are multi-stemmed shrubs with only occasional individuals having a tree life form. Scattered emergent *Albizia procera* (forest siris), *Vachellia ditricha* (wattle) and *Corymbia papuana* are commonly present. A very sparse shrub layer is sometimes present. The ground layer is dense and dominated by *Themeda arguens* (kangaroo grass) and commonly *Sarga plumosum* (sorghum) and *Dichanthium* spp. Occurs on clay plains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Piliostigma malabaricum* low open woodland on central clay plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 167

**Subregions:** 7

**Protected areas:** Oyala Thumotang NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.9.7: Potential habitat for NCA listed species: *Arthraxon australiensis*.

**Comments:** 3.9.7: Central Peninsula.

**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 3.9.8

**Description:** Open tussock grassland of *Heteropogon triticeus* (giant speargrass) and/or *Sarga plumosum* (plume sorghum). Scattered emergent shrubs or trees can occur. Occurs on clay plains. Not a Wetland. (BVG1M: 32b).

Vegetation communities in this regional ecosystem include:

3.9.8a: *Heteropogon triticeus* (giant speargrass) and *Sarga plumosum* (plume sorghum) closed tussock grassland. *Capillipedium parviflorum* (scented top), *Themeda arguens* and *Dichanthium sericeum* (Queensland bluegrass) also occur in high densities. *Flemingia parviflora* (flamingo) is a commonly encountered scrambling legume in this grassland. Very occasionally emergent shrubs of *Grewia savannicola* (dog's balls) and *Piliostigma malabaricum* (bean tree) may be present. Occurs on clay plains. Not a Wetland. (BVG1M: 32b).

3.9.8b: *Sarga plumosum* (plume sorghum) closed tussock grassland, commonly with subdominant species including *Themeda arguens*, *Eriachne* spp. (wanderie grass) and *Pseudopogonatherum contortum*. Very scattered *Melaleuca viridiflora* shrubs and low trees may be present. Occasional taller trees up to 19 metres tall can occur very sparsely. Occurs on clay plains. Not a Wetland. (BVG1M: 32b).

**Short description:** *Heteropogon triticeus* and/or *Sarga plumosum* closed tussock grassland on clay plains

**Supplementary descriptions:**

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

**Protected areas:** Rinyirru (Lakefield) NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.9.8: Restricted to small area in the central & southern Peninsula. Threatening processes are overgrazing and the establishment of exotic plant species.

3.9.8a: Restricted to small area in central Peninsula.

3.9.8b: South-east of bioregion.

**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 3.10.1

**Description:** Seepage springs from sandstone ranges or Tertiary plateaus and associated rainforest and vine thickets. Seepage areas below sandstone or Tertiary caps on plateaus. Palustrine. (BVG1M: 4b).

Vegetation communities in this regional ecosystem include:

3.10.1a: Evergreen mesophyll/notophyll vine forest including *Alstonia scholaris* (milky pine), *Buchanania arborescens* (satinwood), *Blepharocarya involucrigera* (rose butternut), *Carallia brachiata*, *Cryptocarya hypospodia*, *Syzygium forte* subsp. *forte* and *Elaeocarpus grandis*. Some canopy species can occur as emergents along with *Syzygium angophoroides*. A sparse to mid-dense sub-canopy tree layer is often present and include canopy species, *Chionanthus ramiflorus* (native olive), *Gomphandra australiana*, *Helicia australasica* and *Mallotus polyadenos*. A number of palms may be present including *Ptychosperma elegans*, *Archontophoenix alexandrae*, *Hydriastele wendlandiana* and *Licuala ramsayi* (fan palm). A variable shrub/low tree layer is present with *Atractocarpus sessilis*, *Cleistanthus apodus*, *Glycosmis trifoliata* and *Wilkiea rigidifolia* the most commonly encountered species. The ground layer is usually very sparse with scattered herbs and grasses. Scattered vines such as *Flagellaria indica*, *Pararistolochia deltantha*, *Austrosteenisia blackii*, *Mucuna gigantea* and *Freycinetia excelsa* climb into the canopy. Scattered epiphytic ferns such as *Asplenium australasicum* may be present in the canopy. Occurs in sheltered and / or spring fed sandstone gullies. Includes associated vegetation occurring downslope on metamorphic geologies. Palustrine. (BVG1M: 4b).

3.10.1b: Evergreen notophyll vine forest commonly with *Buchanania arborescens*, *Calophyllum sil*, *Syzygium forte*, *Dysoxylum arborescens*, *Endiandra longipedicellata*, *Garcinia warrenii*, *Horsfieldia australiana* and *Litsea breviumbellata*. Emergent trees sometimes occur. A number of palms may be present including *Ptychosperma elegans*, *Archontophoenix alexandrae* and *Hydriastele costata*. *Calamus* spp. are prominent in the sparse subcanopy. The shrublayer often contains *Atractocarpus sessilis*, *Caryota albertii*, *Cryptocarya cunninghamii*, *C. hypospodia* and *Mallotus polyadenos*. The ground layer contains seedlings, *Dianella* spp. and *Drynaria* spp. In sheltered gullies on the edge of sandstone ranges. Palustrine. (BVG1M: 34d).

3.10.1c: Low closed forest to open forest often with *Buchanania arborescens*, *Polyalthia nitidissima*, *Acmenosperma pringlei*, *Canarium australianum*, *Drypetes deplanchei* and *Ficus rubiginosa*. Lower tree layers often contain canopy species plus *Ficus* spp. The shrub layer often contains *Atractocarpus sessilis*, *Acronychia laevis*, *Alyxia spicata* and *Memecylon pauciflorum*. The ground cover commonly includes *Drynaria quercifolia*. Occurs in the sandstone ranges near Laura in areas with lower rainfall than 3.10.1a. Palustrine. (BVG1M: 34d).

3.10.1d: Closed notophyll vine forest often dominated by *Syzygium angophoroides*, *Melicope elleryana*, *Xanthostemon crenulatus*, *Horsfieldia australiana*, *Buchanania arborescens* and *Lophostemon suaveolens*. The mid-dense subcanopy includes canopy species commonly with *Myrsine benthamiana*, *Gmelina dalrympleana* and *Heptapleurum actinophyllum*. The shrublayer includes canopy species commonly with *Melastoma malabathricum*. Common palms include *Livistona* spp. and *Hydriastele wendlandiana*. *Nepenthes mirabilis* is a common species in the ground layer as are the ferns *Taenitis blechnoides*, *Blechnum orientale* and *Stenochlaena palustris*. Occurs as a result of seepage from the base of remnant Tertiary capping. Includes associated vegetation occurring downslope on colluvial and alluvial deposits. Palustrine. (BVG1M: 34e).

**Short description:** Seepage springs from sandstone or Tertiary plateaus and associated rainforests and vine thickets

**Supplementary descriptions:**

**Subregions:** 2, 5, (4), (7)

**Protected areas:** Juunju Daarra Nhirrpan NP (CYPAL), Biniirr NP (CYPAL), Endeavour River NP

**Extent in reserves:** Low

**Wetland:** Palustrine

**Special values:** 3.10.1: Springs associated with this ecosystem are significant for local fauna and near threatened flora species.

3.10.1a: High diversity of vascular plants, many with restricted distributions. High frequency of palms. Often receive continuous moisture from permanent springs.

**Comments:** 3.10.1a: Contains springs. The presence of the palms, *Ptychosperma elegans*, *Archontophoenix alexandrae*, *Hydriastele wendlandiana* and *Licuala ramsayi*, and trees such as *Dillenia alata* reflect this moist environment. Cooktown area.

3.10.1c: Dry vine thicket species are often have higher abundance due to the lower rainfall.

3.10.1d: In some cases an open forest of *Eucalyptus brassiana* with a rainforest understory can occur. Edges of bauxite plateaus in the Weipa area.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

## Regional ecosystem 3.10.2

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.33. Simple evergreen notophyll vine forest. RE defunct. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple evergreen notophyll vine forest on sandstone ranges in the north east

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.10.2: Potential habitat for NCA listed species: *Argophyllum verae*, *Calophyllum bicolor*, *Cyathea exilis*, *Cyathea felina*, *Dendrobium x superbiens*, *Gardenia psidioides*, *Hydriastele costata*, *Leichhardtia paludicola*, *Sticherus milnei*.

**Comments:**

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.10.3

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.33. A mid-dense to dense, even canopy (14-30m tall) is characterised by the conspicuous presence of *Callitris intratropica* (cypress pine). This species is sometimes an emergent tree reaching 35m in height. Other frequent canopy trees that may be codominants in places include *Acacia polystachya*, *Welchiodendron longivalve* (yellow box-penda), *Flindersia ifflaiana*, *Neofabricia myrtifolia* (yellow teatree) and *Asteromyrtus brassii*. A number of species may be present in the sparse to mid-dense sub-canopy layer (6-20m tall), however, *Choriceras tricornis* is the most commonly encountered tree. The sparse shrub/low tree layer (0.5-10m) is usually present, with *Atractocarpus sessilis*, *Endiandra glauca*, *Antirhea ovatifolia* and *Choriceras tricornis* the most frequent dominants. The composition of these layers varies between individual vine forest patches. Thin wiry vines such as *Hypserpa laurina*, *Jasminum didymum*, *Flagellaria indica*, *Smilax australis* and *S. glycyphylla* are frequent. Scattered epiphytic orchids and creepers such as *Dischidia major* and *Dischidia ovata* are present on the lower branches of the canopy trees. The ground is covered with a thick layer of leaf litter, and rocks frequently outcrop. Scattered ferns, graminoids and tree seedlings are usually present. Discrete patches on low hills. Not a Wetland. (BVG1M: 2c).

**Short description:** Simple evergreen notophyll vine forest with *Callitris intratropica* on low hills

**Supplementary descriptions:** Neldner and Clarkson (in prep), 25

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.10.3: Near threatened species including *Cryptocarya claudiana* occur in this ecosystem. Relatively young vine forest with *Callitris intratropica* emergents.

**Comments:** 3.10.3: Discrete patches on low hills of McHenry Uplands. This RE has moved to 3.5.4x3. North-east of bioregion, McHenry Uplands.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.10.4

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.20. Simple evergreen notophyll vine forest with *Eucalyptus pellita*. On deep sands on sandstone plateaus. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple evergreen notophyll vine forest with *Eucalyptus pellita*

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:**

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.10.5

**Description:** Deciduous notophyll/microphyll vine thicket or simple evergreen notophyll vine forest. Occurs on sandstone hills and talus slopes. Not a Wetland. (BVG1M: 7b).

Vegetation communities in this regional ecosystem include:

3.10.5a: Deciduous notophyll/microphyll vine thicket composed of a variety of species most of which are deciduous in the dry season and often include *Terminalia muelleri* (Mueller's damson), *Millettia pinnata* (millettia), *Croton arnhemicus* (hard cascarilla), *Canarium australianum* (scrub turpentine), *Wrightia pubescens* subsp. *penicillata* and *Vitex acuminata* (vitex). *Gyrocarpus americanus* (helicopter tree) and *Bombax ceiba* (kapok) are frequently present as part of the canopy, or as emergents. A mid-dense to dense sub-canopy and/or shrub layer is composed mainly of species also found in the canopy layer. Vines are frequent in both the shrub and tree layers. The ground layer is usually sparse, with the forbs *Tacca leontopetaloides* (arrowroot), *Asystasia australasica*, *Laportea interrupta* and *Cyathula prostrata* and grasses *Panicum trichoides* (a native panic) and *Oplismenus* spp. making up the majority of the cover. Occurs on sandstone hills. Not a Wetland. (BVG1M: 7b).

3.10.5b: [RE not in use]<sup>2</sup>: This vegetation community is mapped as 3.5.20. A fairly even, closed canopy (10-18m tall) is composed of a variety of species. *Argyrodendron polyandrum* (brown tulip oak), *Blepharocarya involucrigera* (rose butternut) and *Chionanthus ramiflorus* (native olive) frequently co-dominate the canopy. Scattered *Ptychosperma elegans* palms are sometimes present in the canopy. *Eucalyptus pellita* (red mahogany) and in places *Syzygium forte* subsp. *forte* form a conspicuous emergent layer (21-27m tall). A sparse, low tree layer (2-4m tall) is usually present. Scattered slender vines such as *Pararistolochia deltantha* and robust woody lianas such as *Austrosteenisia blackii* occur frequently. No epiphytes were observed in this vegetation type during the survey. A very sparse ground layer is composed of tree seedlings. Occurs on sandstone talus slopes. Not a Wetland. (BVG1M: 7b).

3.10.5c: Semi-deciduous notophyll/microphyll vine thicket commonly with *Buchanania arborescens* (native mango), *Millettia pinnata* (millettia), *Barringtonia calypttrata* (cornbeef wood), *Premna dallachyana*, *Sterculia quadrifida* (peanut tree), *Brachychiton* spp., *Mallotus philippensis* (red camala) and *Celtis* spp. *Bombax ceiba* (kapok) and *Gyrocarpus americanus* (helicopter tree) also occur in the canopy and sometimes as emergent trees. A sparse subcanopy sometimes occurs with canopy species. *Miliusa traceyi*, *Drypetes deplanchei* (yellow tulip), *Aidia racemosa* (wild randia) and *Arytera bifoliolata* (Cape coogara) occur commonly in the sparse shrub layer. The ground layer is very sparse with a thick layer of leaf litter. Occurs on slopes below sandstone caps on hills. Contains Palustrine. (BVG1M: 7b).

3.10.5d: Notophyll vine forest commonly with *Cinnamomeum baileyianum* (pepperwood), *Buchanania arborescens* (native mango), *Dysoxylum oppositifolium* (pink mahogany), *Argyrodendron polyandrum* (tulip oak) and *Carallia brachiata* are frequent dominants. The very sparse emergent layer of *Araucaria cunninghamii* (hoop pine) is a conspicuous feature of this unit. *Acronychia laevis* (hard aspen), *Atractocarpus sessilis*, *Chionanthus ramiflorus* and *Gossia bidwillii* are dominant species in the mid-dense sub-canopy layer. A sparse shrub layer is also dominated by subcanopy species and *Polyalthia nitidissima* (canary beech). Common vines include *Flagellaria indica*, *Smilax australis* and *Austrosteenisia blackii*. The ground layer is very sparse composed of isolated clumps of seedlings and ferns such as *Blechnum medium* and *Lindsaea media*. Sandstone derived soils on slopes below sandstone capping. Contains Palustrine. (BVG1M: 2c).

<b>Short description:</b>	Deciduous notophyll and/or microphyll vine thicket or forest on sandstone hills and slopes
<b>Supplementary descriptions:</b>	
<b>Subregions:</b>	5, 2, 6, (9.3), (9), (4), (1), (8)
<b>Protected areas:</b>	Cape Melville NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Flinders Group NP (CYPAL), Claremont Isles NP, Oyala Thumotang NP (CYPAL), Marpa National Park (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.10.5: Potential habitat for NCA listed species: <i>Acmenosperma pringlei</i> , <i>Dianella incollata</i> , <i>Mezoneuron hymenocarpum</i> , <i>Rhaphidospora cavernarum</i> , <i>Senegalia albizioides</i> , <i>Syzygium rubrimolle</i> . 3.10.5a: Potential habitat of the vulnerable plant species <i>Acmenosperma pringlei</i> and <i>Rhaphidospora cavernarum</i> . 3.10.5b: High diversity of vascular plants, many with restricted distributions. Probable mixed forest community produced by irregular fires or cyclonic damage. With fire the rainforest elements may disappear.
<b>Comments:</b>	3.10.5: Mainly in Laura Basin. 3.10.5a: Mainly in Laura Basin. 3.10.5b: SUPERSEDED. 3.10.5c: Some areas of metamorphosed sandstone (formerly mapped as 3.11.2b) have been included in the RE. Mainly in the Laura Basin. 3.10.5d: Altanmoui Range.
<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 3.10.6

**Description:** *Eucalyptus tetrodonta* (Darwin stringybark) woodland to (rarely) low open forest usually with *Corymbia stockeri* (gum topped bloodwood). Small areas of *Eucalyptus cullenii* (Cullen's ironbark) or *E. crebra* (narrow-leaved ironbark) woodland often with *E. tetrodonta* (Darwin stringybark) can occur. Occurs on sandstone plateaus and hills. Not a Wetland. (BVG1M: 14d).

Vegetation communities in this regional ecosystem include:

3.10.6a: *Eucalyptus tetrodonta* (Darwin stringybark) woodland to (rarely) low open forest usually with *Corymbia stockeri* (gum topped bloodwood) and occasionally, *E. crebra* (narrow leaved ironbark), *E. cullenii* (Cullen's ironbark) or *Erythrophleum chlorostachys* (Cooktown ironwood). *C. nesophila* (Melville Island bloodwood) can also occur as a subdominant. The sparse subcanopy contains canopy species occasionally with *Grevillea glauca* (bushman's clothes peg), *G. parallela* (silver oak) and *Persoonia falcata* present. The very sparse to mid-dense shrub layer contains juvenile canopy species and commonly *Coelospermum reticulatum*, *Planchonia careya*, *Acacia rothii* and *Xanthorrhoea johnsonii*. The sparse to mid-dense grassy ground layer dominants can include *Heteropogon triticeus*, *Aristida* spp., *Triodia microstachya* and *Schizachyrium* spp. Occurs on sandstone plateaus and hills. Not a Wetland. (BVG1M: 14d).

3.10.6b: *Eucalyptus cullenii* (Cullen's ironbark) woodland often with *E. tetrodonta* (Darwin stringybark). *E. crebra* (narrow leaved ironbark) may dominate in some areas. The very sparse subcanopy contains scattered canopy species, *Melaleuca stenostachya*, *M. citrolens* and *Acacia leptocarpa*. The very sparse shrub layer also contains scattered canopy species as well as *Jacksonia thesioides* and *Gastrolobium grandiflorum*. The mid-dense grassy ground layer can include *Heteropogon triticeus*, *Arundinella setosa*, *Themeda triandra* along with *Grevillea dryandri*. Occurs on sandstone plateaus. Not a Wetland. (BVG1M: 13a).

3.10.6c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.6x2. *Corymbia stockeri* and *Eucalyptus crebra* form an even but discontinuous canopy. *E. brassiana* is usually present but generally occurs at low densities. *Eucalyptus mediocris* occurred in the canopy at Cape Bedford. There are two very sparse layers of shrubs and young trees; one 2-4m tall dominated by young *Eucalyptus* spp., and the other 0.5-1m tall dominated by *Acacia calyculata*, *Dodonaea lanceolata* var. *subsessilifolia*, *Erythrophleum chlorostachys*, *Jacksonia thesioides* and *Xanthorrhoea johnsonii*. The ground layer is very sparse and dominated by graminoids. Most of the soil surface is covered with leaf litter or exposed rock. Exposed sandstone headlands & caps. Not a Wetland. (BVG1M: 12b).

3.10.6d: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.6a. *Corymbia stockeri* subsp.

stockeri (gum-topped bloodwood) and *Eucalyptus megasepala* usually dominate the sparse canopy (9-15m, occasionally 20m tall). *Melaleuca stenostachya* (fibre-barked teatree) usually dominates a very sparse sub-canopy tree layer (8-12m tall). *M. viridiflora* (broad-leaved teatree) is also frequently present. A sparse shrub layer (3-8m tall) is usually present. *Petalostigma banksii* (smooth-leaved quinine) and *Corymbia stockeri* frequently dominate this layer. The ground layer is sparse to mid-dense and dominated by the grasses, *Schizachyrium fragile* (fire grass), *Sarga plumosum* (plume sorghum) and *Heteropogon triticeus* (giant speargrass). Occurs on sandstone plateau tops. Not a Wetland. (BVG1M: 14b).

3.10.6x1a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.2. *Acacia shirleyi* (lancewood) dominates a sparse to mid-dense canopy (18-24m tall). Scattered *Corymbia stockeri* subsp. *Peninsularis* (gum-topped bloodwood) are usually present in the canopy. A sparse sub-canopy low tree layer (4-9m tall) is frequently present. *A. shirleyi* also dominates the very sparse to sparse shrub layer (0.5-2m tall). The ground layer is short and very sparse, with *Schoenus sparteus* and *Eriachne* spp. (wanderrie grass) consistently present. Occurs on sandstone. Not a Wetland. (BVG1M: 24a).

3.10.6x1b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.7.6. *Melaleuca stenostachya* (fibre-barked teatree) dominates the sparse canopy (8-12m tall). *Acacia leptostachya* (slender wattle) is generally subdominant in both the canopy and sub-canopy layers. Scattered *Corymbia stockeri* subsp. *Stockeri* (gum-topped bloodwood) and *Eucalyptus tetrodonta* (Darwin stringybark) are occasionally present and may emerge above the canopy. *A. leptostachya*, *Jacksonia thesioides*, *Lithomyrtus retusa*, *Petalostigma banksii* (smooth-leaved quinine), *M. stenostachya* and *Neofabricia sericisepala* (yellow teatree) are the most abundant shrubs in the very sparse shrub layer (0.5-2m tall). The ground layer is very sparse. The graminoids, *Eriachne* spp. (wanderrie grass), *Thaumatococcus* spp., *Schizachyrium fragile* (fire grass) and *Schoenus sparteus* making up most of the biomass. Occurs on sandstone plateaus. Not a Wetland. (BVG1M: 21b).

3.10.6x2: *Eucalyptus portuensis* woodland to low open forest usually with *E. crebra* (narrow-leaved ironbark) or *E. cullenii* (Cullen's ironbark) and commonly *Corymbia clarksoniana* (Clarkson's bloodwood). A number of other *Eucalyptus* spp. and *Corymbia* spp. may also occur. A very sparse subcanopy sometimes occurs with scattered canopy species. The very sparse to sparse shrub-layer may contain canopy species, *Acacia flavescens* and *Xanthorrhoea johnsonii*. The sparse to mid-dense grassy ground layer can be dominated by *Themeda triandra* (kangaroo grass), *Heteropogon triticeus* (giant spear grass), *Scleria* spp. and also include a range of forbs. Occurs on remnant sandstone capping and ridges. Not a Wetland. (BVG1M: 9d).

3.10.6x3: *Eucalyptus cloeziana* (Gympie messmate) open forest to woodland commonly with *Corymbia stockeri* subsp. *stockeri* (gum-topped bloodwood) as a subdominant. *E. tetrodonta* (Darwin stringybark) is also commonly present in the canopy. The very sparse sub-canopy usually includes canopy species with *Erythrophleum chlorostachys* (Cooktown ironwood) usually present. The very sparse to sparse shrub layer usually contains canopy species, *Acacia* spp. and *Persoonia falcata* (geebung). Heath species such as *Jacksonia thesioides* (broombush) and *Lamprolobium fruticosum* can be prominent in the shrub layer. The mid-dense ground layer often contains *Gompholobium nitidum*, *Grevillea dryandri* and *Cassytha filiformis* (dodder) while commonly found grasses are *Heteropogon triticeus* (giant speargrass) and *Themeda triandra* (kangaroo grass). Occurs on slopes below sandstone scarps. Not a Wetland. (BVG1M: 9d).

3.10.6x4: *Corymbia stockeri* (gum topped bloodwood) +/- *Eucalyptus cullenii* (Cullen's ironbark) woodland occasionally with *E. brassiana* (Cape York redgum). A very sparse sub-canopy of canopy species, *Acacia platycarpa*, *Erythrophleum chlorostachys*, *Melaleuca viridiflora* or *Planchonia careya* is usually present. A very sparse shrub layer is dominated by *Acacia* spp., *Jacksonia thesioides* and *Grevillea* spp. The sparse to very sparse ground layer is dominated by *Heteropogon triticeus* (giant spear grass), *Eriachne* spp., *Sara plumosum* (Sorghum) and a mix of forbs. Occurs on sandstone ranges. Not a Wetland. (BVG1M: 14d).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia stockeri* subsp. *stockeri* woodland on sandstone plateaus

**Supplementary descriptions:**

**Subregions:** 5, 4, 6, (9.3), (2), (1), (7), (2.4), (8), (9)

**Protected areas:** Muundhi (Jack River) NP (CYPAL), Biniirr NP (CYPAL), Oyala Thumotang NP (CYPAL), Cape Melville NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Olkola NP (CYPAL), Alwal NP (CYPAL), Batavia NP (CYPAL), Flinders Group NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Bromley (Kungkaychi) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Palmer Goldfield RR, Ngaynggarr NP (CYPAL), Apudthama NP (CYPAL), Marpa National Park (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.10.6: Potential habitat for NCA listed species: *Acacia guymeri*, *Cucumis costatus*, *Dianella incollata*, *Gardenia psidioides*, *Homoranthus tropicus*, *Stemona angusta*, *Stenanthemum argenteum*, *Syzygium rubrimolle*.

<b>Comments:</b>	<p>3.10.6: RE's 3.10.10, 3.10.9(a), 3.10.21(a&amp;c) were amalgamated into this RE. Vegetation community 3.10.6b is of restricted distribution and only has a small area. Widespread in the bioregion, particularly west of Cooktown.</p> <p>3.10.6a: Vegetation communities 3.10.6d, 3.10.21(part) was amalgamated in to this vegetation community. Frequently large areas of the ground surface are covered by sandstone rocks. Widespread in the bioregion, west of Cooktown.</p> <p>3.10.6b: West of Cooktown in the south-east of the bioregion.</p> <p>3.10.6c: The height of the canopy is frequently determined by exposure to prevailing south-easterly winds. In very rocky areas, a dwarf open heath of <i>Allocasuarina littoralis</i>, <i>Grevillea pteridifolia</i>, <i>Hibbertia oblongata</i> and <i>Jacksonia thesioides</i> forms, while in deeper gullies, <i>Eucalyptus brassiana</i> and <i>Acacia leptocarpa</i> become prominent. In sheltered, more mesic positions, particularly gullies, <i>Erythrophleum chlorostachys</i> forms a prominent component of the canopy. <i>Lophostemon suaveolens</i> and <i>Allocasuarina littoralis</i> may also be present in the canopy, and <i>Corymbia tessellaris</i> is sometimes present as an emergent tree (10m tall). A denser shrub layer (2-4m tall, 20% PFC) is frequently present. <i>Buchanania arborescens</i>, <i>Canarium australianum</i> and <i>Schefflera actinophylla</i> occur in some gullies. Occurs on Melville Range and coastal headlands in south of bioregion.</p> <p>3.10.6x1a: Restricted to south of bioregion.</p> <p>3.10.6x2: The vegetation community 3.10.6c was amalgamated into this RE. West of Cooktown in the south-east of the bioregion.</p> <p>3.10.6x3: West of Cooktown in the south-east of the bioregion.</p> <p>3.10.6x4: Includes areas previously mapped as 3.10.6x4. Differentiated from 3.10.6 by the absence of <i>Eucalyptus tetradonta</i> (Darwin stringybark). Largely restricted to the Flinders Island group with a small occurrence on Cape Bedford where <i>Eucalyptus mediocris</i> occurs in the canopy.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 396000 ha; Remnant 2021 396000 ha
<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 3.10.7

**Description:** *Eucalyptus phoenicea* (scarlet gum) woodland with *Corymbia stockeri* subsp. *stockeri* (gum-topped bloodwood), *E. portuensis* (broad-leaved stringybark) or *C. nesophila* (Melville Island bloodwood) often present in the canopy. A very sparse sub-canopy tree layer is usually present with canopy species plus *Grevillea glauca* (bushman's clothes peg). The very sparse to sparse shrub layer consists of canopy species, *Acacia* spp. Or *Xanthorrhoea johnsonii* (grass tree). The very sparse ground layer is dominated by *Aristida* spp., *Schizachyrium* spp. And *Thaumastochloa* spp. Occurs on the wetter areas of the sandstone. Not a Wetland. (BVG1M: 14c).

Vegetation communities in this regional ecosystem include:

3.10.7a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.7. *Eucalyptus phoenicea* (scarlet gum) dominates the sparse canopy (18-25m tall). *Corymbia nesophila* (Melville Island bloodwood) is frequently present as a subdominant canopy tree, and *Eucalyptus mediocris* (mahogany) is frequently present. *Acacia crassicarpa* (spoon tree), *A. flavescens* (powderpuff wattle), *Parinari nonda* (nonda plum) and *Syzygium suborbiculare* (lady apple) are frequent sub-canopy trees forming a sparse layer (6-15m tall). A sparse to mid-dense shrub layer (0.5-6m tall), including many heath species, is usually present. The ground layer is sparse and usually dominated by grasses. The creeping vines *Vandasina retusa* and *Flemingia parviflora* are conspicuous at some localities. Occurs on the wetter areas of sandstone ranges. Not a Wetland. (BVG1M: 14c).

3.10.7b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.7. *Eucalyptus phoenicea* (scarlet gum) dominates the sparse canopy. Scattered *E. tetradonta* (Darwin stringybark), *Corymbia clarksoniana* (Clarkson's bloodwood), *C. stockeri* subsp. *stockeri* (gum-topped bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) trees are frequently present in the canopy. A very sparse sub-canopy tree layer is usually present with *Grevillea glauca* (bushman's clothes pegs) and *Melaleuca nervosa* (woodland paperbark) can be prominent in this layer. The very sparse shrub layer consists of a variety of species. The sparse ground layer is dominated by the grasses, *Aristida* spp., *Schizachyrium* spp. and *Thaumastochloa* spp. Occurs on sandy plains and ridges on sandstone. Not a Wetland. (BVG1M: 14c).

**Short description:** *Eucalyptus phoenicea* on wetter sandstone

**Supplementary descriptions:**

**Subregions:** 5, (6), (2), (9.3)

**Protected areas:** Biniirr NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Palmer Goldfield RR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.10.7: The only Queensland populations of *Eucalyptus phoenicea* occur in REs 3.2.9, 3.5.6 and 3.10.7. This species is widely distributed in the Northern Territory and Kimberley region. Potential habitat for the vulnerable plant species *Euphorbia carissoides*.

**Comments:** 3.10.7: The vegetation communities 3.10.7a and 3.10.7b were amalgamated in to this RE. Battlecamp Range.  
3.10.7a: This vegetation community is now dissolved into 3.10.7. Battlecamp Range.  
3.10.7b: Battlecamp Range.

**Estimated extent:**<sup>1</sup> Pre-clearing 13000 ha; Remnant 2021 13000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:** Under review

## Regional ecosystem 3.10.8

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.11.11x2. *Eucalyptus similis* (yellowjacket) and *Corymbia nesophila* (Melville Island bloodwood) dominate the sparse canopy (14-18m tall). Scattered trees of *E. tetrodonta* (Darwin stringybark) and *C. stockeri* subsp. *stockeri* (gum-topped bloodwood) may be present in the canopy. The very sparse to sparse sub-canopy layer (2-10m tall) is dominated by *Eucalyptus* spp. and *Corymbia* spp. A sparse shrub layer (0.5-1.5m tall) is usually present where species also occurring in the canopy layers are dominant. The ground layer is sparse to mid-dense and dominated by grasses. Occurs on lower slopes and pediments of central sandstone ranges. Not a Wetland. (BVG1M: 14c).

**Short description:** *Eucalyptus similis* +/- *Corymbia nesophila* woodland on pediments of sandstone ranges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 89

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.10.8: Northern outlying populations of *Eucalyptus similis*, which is extensive in the Desert Uplands bioregion.

**Comments:**

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.10.9



**Description:** *Corymbia clarksoniana* (Clarkson's bloodwood) and *Eucalyptus tetrodonta* (Darwin stringybark) woodland to low woodland occasionally with *Melaleuca viridiflora* (broad-leaved teatree), *M. nervosa* and *Erythrophleum chlorostachys* (Cooktown ironwood). A very sparse subcanopy commonly contains *Melaleuca* spp. canopy species. The very sparse shrublayer usually contains scattered canopy species, *Grevillea glauca* (clothespeg *Grevillea*) and *Acacia* spp. The mid-dense grassy ground layer is commonly dominated by *Heteropogon triticeus* (giant spear grass), *Schizachyrium* spp., and *Themeda triandra* (kangaroo grass). Occurs on sandstone plateaus. Not a Wetland. (BVG1M: 14d).

Vegetation communities in this regional ecosystem include:

3.10.9a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.6a. *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia stockeri* subsp. *stockeri* (gum-topped bloodwood) co dominate the sparse canopy (12-17m tall). *E. cullenii* (Cullen's ironbark) and *Erythrophleum chlorostachys* (Cooktown ironwood) are occasionally present as subdominant trees. The very sparse sub-canopy layer (2-6m tall) is dominated by the canopy eucalypts. A very sparse shrub layer (0.5-1m tall) is present where *C. stockeri* subsp. *stockeri*, *Eucalyptus tetrodonta*, *Grevillea dryandri* subsp. *dryandri*, *Indigofera pratensis* (forest indigo) and *Persoonia falcata* (geebung) are the most commonly encountered species. The ground layer is sparse and dominated by the grasses *Triodia microstachya* (spinifex), *Eriachne* spp., *Heteropogon triticeus* (giant speargrass) and *Themeda triandra* (kangaroo grass). Occurs on sandstone plateaus. Not a Wetland. (BVG1M: 14d).

3.10.9b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.9. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a sparse canopy. *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) is also frequently present in both the canopy and the very sparse to sparse sub-canopy tree layer. *Grevillea glauca* (bushman's clothes peg), *Erythroxylum ellipticum* (matchwood), *Alphitonia pomaderroides* (soapwood), *Eucalyptus tetrodonta* and *Melaleuca nervosa* (woodland paperbark) are other common sub-canopy trees. A very sparse to sparse shrub layer is composed of a variety of young trees and shrubby regrowth. The ground layer is usually very sparse to mid-dense and dominated by grasses, usually *Schizachyrium* spp. (firegrass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panic), *Aristida* spp. (three-awn speargrass), *Alloteropsis semialata* (cockatoo grass) and *Thaumastochloa* spp. On sandstone ranges. Not a Wetland. (BVG1M: 14d).

3.10.9c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.9. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a sparse to mid-dense canopy. *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant in the canopy. *C. tessellaris* (Moreton Bay ash) and *Lophostemon suaveolens* (swamp mahogany) are also frequently present in the canopy. The very sparse to sparse sub-canopy tree layer is dominated by *Acacia flavescens* (powderpuff wattle), *Parinari nonda* (nonda plum), *Grevillea parallela* (silver oak), *Erythrophleum chlorostachys* (Cooktown ironwood) and *Melaleuca viridiflora* (broad-leaved teatree). *Livistona muelleri* (dwarf fan palm) is common in the sub-canopy tree layer and dominated this layer at one site. The very sparse shrub layer is composed of a variety of young trees and shrubby regrowth. The ground layer is usually sparse to mid-dense and frequently dominated by *Heteropogon triticeus* (giant speargrass), *Mnesithea rottboellioides* (northern cane grass), *Dianella* spp., *Imperata cylindrica* (blady grass) and *Sarga plumosum* (plume sorghum). Occurs on sandstone ranges. Not a Wetland. (BVG1M: 14d).

3.10.9d: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.6a. *Eucalyptus tetrodonta* (Darwin stringybark) predominates, forming a distinct but discontinuous sparse canopy (17-26m tall). *Corymbia nesophila* (Melville Island bloodwood) and *C. clarksoniana* (Clarkson's bloodwood) may be subdominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) may occur just below the canopy, occasionally forming a mid-dense layer. sub-canopy trees (4-15m tall) are sometimes present. A sparse low shrub layer (0.5-2m tall) composed of young trees and shrubby regrowth is often present. The ground layer can be very sparse to mid-dense and is dominated by grasses. The primary species in this layer are *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panics), *Alloteropsis semialata* (cockatoo grass) and *Thaumastochloa* spp. Occurs on sandstone footslopes and hills. Not a Wetland. (BVG1M: 14a).

3.10.9e: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.5.9. *Eucalyptus tetrodonta* (Darwin stringybark) is always present in the sparse canopy (13-22m tall). It usually predominates or is codominant with *Corymbia stockeri* subsp. *stockeri* (gum-topped bloodwood) and/or *C. setosa* subsp. *Pedicellaris* (rough-leaved bloodwood). *Erythrophleum chlorostachys* (Cooktown ironwood) is also often present in both the canopy and the very sparse to sparse sub-canopy tree layer (3-12m tall). *Grevillea glauca* (bushman's clothes peg), *G. parallela* (silver oak), *Neofabricia sericisepala*, *Petalostigma banksii* (smooth-leaved quinine), *Adenanthera abrosperma* (bead tree), *Corymbia stockeri* subsp. *Peninsularis*, *C. setosa* subsp. *Pedicellaris*, *Eucalyptus tetrodonta* and *Melaleuca nervosa* (paperbark) are other frequent sub-canopy trees. A very sparse to sparse shrub layer (0.2-2.5m tall) is composed of a variety of young trees and shrubby regrowth. The ground layer is usually sparse to mid-dense and dominated by grasses usually *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (panic), *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Thaumastochloa* spp. Occurs on sandstones. Not a Wetland. (BVG1M: 14b).

<b>Short description:</b>	Corymbia clarksoniana +/- Eucalyptus tetrodonta woodland on sandstone plateaus
<b>Supplementary descriptions:</b>	
<b>Subregions:</b>	6, 1, 5, 8, 4, 2, (7), (2.4)
<b>Protected areas:</b>	Olkola NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Oyala Thumotang NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.10.9: Potential habitat for NCA listed species: Acacia guymeri, Cucumis costatus, Dianella incollata, Homoranthus tropicus, Stemona angusta, Stenanthemum argenteum.
<b>Comments:</b>	3.10.9: Part of the original 3.10.9 is now amalgamated into RE 3.10.6. The description for 3.10.9 has been modified to reflect this. 3.10.9a: Vegetation community 3.5.8b was amalgamated in to this RE. 3.10.9b: Battlecamp Range. 3.10.9c: Battlecamp Range. 3.10.9d: South of the bioregion. 3.10.9e: Western side of Great Dividing Range.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 16000 ha; Remnant 2021 16000 ha
<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 3.10.10

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.10.6. Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) usually with co-dominant or subdominant *Corymbia stockeri* subsp. *stockeri* (gum-topped bloodwood) and/or *C. nesophila* (Melville Island bloodwood). The very sparse sub-canopy usually contains canopy species +/- *Acacia rothii* (Roth's wattle). The sparse to mid-dense shrub layer includes *A. rothii*, *Planchonia careya* (cocky apple), *Xanthorrhoea johnsonii* (grass tree) and canopy species. The ground layer is sparse to mid-dense and dominated by the grasses *Heteropogon triticeus* (giant speargrass), *Schizachyrium* spp. (fire grass) and *Eriachne* spp. Occurs on sandstone plateaus and slope. Occurs on sandstone plateaus and slopes. Not a Wetland. (BVG1M: 14d).

Vegetation communities in this regional ecosystem include:

3.10.10a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.6. *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia stockeri* subsp. *stockeri* (gum-topped bloodwood) co dominate the sparse canopy. *C. nesophila* (Melville Island bloodwood) is present at most sites as a subdominant canopy tree. The very sparse to sparse sub-canopy layer is dominated by the same *Eucalyptus* spp. and *Corymbia* spp. which are found in the canopy and by *Acacia rothii* (Roth's wattle), *Grevillea glauca* (bushman's clothes peg), *Parinari nonda* (nonda) and *Erythrophleum chlorostachys* (Cooktown ironwood). The shrub layer varies from mid-dense to very sparse and is composed of a variety of species which may vary from site to site. The most commonly encountered species in this layer are *Eucalyptus* spp. and *Corymbia* spp. that also occur in the tree layer and *Planchonia careya* (cocky apple). The ground layer is sparse to mid-dense and dominated by the grasses *Heteropogon triticeus* (giant speargrass), *Aristida* spp. (three-awned speargrass), *Schizachyrium* spp. (fire grass) and *Sarga plumosum* (plume sorghum). RE is defunct. Not a Wetland. (BVG1M: 14d).

3.10.10b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.6. *Eucalyptus tetrodonta* (Darwin stringybark) dominates the sparse canopy (12-22m tall). *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is always present and *Erythrophleum chlorostachys* (Cooktown ironwood) is often present as subdominant canopy trees. *Corymbia nesophila* (Melville Island bloodwood) is occasionally present and may be dominant in places. *Adenanthera abrosperma* (bead tree), *E. chlorostachys* and *Grevillea glauca* (bushman's clothes peg) are the most frequently encountered trees in the very sparse sub-canopy layer (4-12m tall). A very sparse to sparse shrub layer (0.2-2m tall) is present. *Xanthorrhoea johnsonii* (grass tree), or less frequently, *Bossiaea armitii* dominates this layer. *Corymbia stockeri* subsp. *peninsularis*, *Eucalyptus tetrodonta*, *Planchonia careya* (cocky apple) and *Acacia rothii* (Roth's wattle) are other commonly encountered shrubs. The ground layer is sparse to mid-dense and dominated by grasses such as *Thaumastochloa* spp., *Heteropogon triticeus* (giant speargrass) and *Schizachyrium fragile* (fire grass) and the sedge *Schoenus sparteus*. Occurs on undulating rises. Not a Wetland. (BVG1M: 14d).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia stockeri* +/- *C. nesophila* woodland on sandstone plateaus and slopes

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.10.10: Potential habitat for NCA listed species: *Argophyllum verae*, *Gardenia psidioides*.

**Comments:** 3.10.10: Central Peninsula from Coen to Temple Bay.  
3.10.10b: Central Peninsula.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.10.11

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.35. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a distinct but discontinuous canopy (9-25m tall). *Corymbia nesophila* (Melville Island bloodwood) is a subdominant to codominant canopy species. A very sparse to sparse sub-canopy layer (5-12m tall) is characterised by *Asteromyrtus brassii*, *Neofabricia myrtifolia* (yellow teatree), *Grevillea glauca* (bushman's clothes peg) and *Acacia rothii* (Roth's wattle). Scattered low trees (2-6m tall) are sometimes present and a very sparse to mid-dense shrub layer (0.5-2m tall) is dominated by heath shrubs such as *Jacksonia thesioides*, *Neoroepora banksii*, *Choriceras tricornis* (Cape choriceras), *Asteromyrtus lysicephala* (back to front bush) and *Acacia calyculata* (a wattle). These often occur at high densities. The ground layer is usually very sparse to mid-dense and dominated by the sedge *Schoenus sparteus* and the grasses *Heteropogon triticeus* (giant speargrass) and *Eulalia mackinlayi* (silky browntop). Occurs most extensively on low undulating sandstone hills in the north. Occurs most extensively on low undulating sandstone hills. Not a Wetland. (BVG1M: 14b).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia nesophila* woodland on undulating sandstone hills

**Supplementary descriptions:** Neldner and Clarkson (in prep), 102

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.10.11: Northern part of bioregion. *Callitris intratropica* emergents and *Leucopogon* sp. shrubs are more frequent on the lowlands than on the McHenry plateau.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.10.12

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.42. *Asteromyrtus brassii*, *Neofabricia myrtifolia* (yellow teatree) and *Allocasuarina littoralis* (black sheoak) usually dominate the fairly even, mid-dense canopy (6-10m tall). Multi-stemmed *Welchiodendron longivalve* (yellow box-penda) trees are also frequently conspicuous in the canopy. A sparse sub-canopy layer (2-6m tall) is frequently dominated by *Dodonaea polyandra* (native hop-bush) and *Allocasuarina littoralis*, while a sparse to mid-dense shrub layer (0.5-1.5m tall) dominated by *Alyxia spicata*, *D. polyandra*, *Choriceras tricornis* or *Exocarpos latifolius* species is usually present. The ground layer is very sparse with *Schoenus sparteus*, *Cleistochloa* spp., *Lomandra* spp., *Alloteropsis semialata*, *Eulalia mackinlayi* and *Gahnia aspera* being the most frequent species. Occurs on sandy plateaus and, in places, on lateritised profiles. Not a Wetland. (BVG1M: 28c).

**Short description:** *Asteromyrtus brassii*, *Neofabricia myrtifolia* and *Allocasuarina littoralis* low open forest on sandstone plains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 135

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.10.12: *Callitris intratropica* emergents and *Leucopogon* sp. shrubs are more frequent on the lowlands than on the McHenry plateau. This RE has moved to 3.5.19x2. Northern part of bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.10.13

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.19x3. *Neofabricia myrtifolia* (yellow teatree) and *Asteromyrtus brassii* dominate the sparse to mid-dense canopy (7-17m tall). *Acacia crassicaarpa* (spoon tree), *Allocasuarina littoralis* (black sheoak) and *Lophostemon suaveolens* (swamp mahogany) also occur at high densities in the canopy. *Callitris intratropica* (cypress pine) may form part of the canopy but more frequently is an emergent tree (9-20m tall). The mid-dense sub-canopy layer (2-6m tall) is dominated by *Leucopogon yorkensis*. This species is also frequent in the very sparse to sparse shrub layer (0.5-2m tall), together with *Alyxia spicata* (chain fruit), *Asteromyrtus brassii* and *Styphelia ruscifolia*. Epiphytic orchids and ant plants are frequent on the trunks of the trees and shrubs. The ground layer is very sparse and dominated by the graminoids, *Cleistochloa* spp., *Schoenus sparteus* and *Arthrostylis aphylla*. Occurs on plains and low rises. Not a Wetland. (BVG1M: 28c).

**Short description:** *Neofabricia myrtifolia* and *Asteromyrtus brassii* low open forest on plains and low rises

**Supplementary descriptions:** Neldner and Clarkson (in prep), 140

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.10.13: Jardine River catchment's and Harmer Creek.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.10.14

**Description:** *Allocasuarina littoralis* low woodland commonly with *Acacia crassicaarpa* and occasionally *A. flavescens* and *Banksia dentata*. A sparse shrublayer can occur with canopy species, *Acacia* spp. and often heath species such as *Styphelia ruscifolia*, *Neoroepera banksii*, *Hibbertia* spp. and *Lithomyrtus retusa*. The sparse ground layer can include *Schoenus sparteus*, *Lomandra* spp., *Digitaria* spp. and *Triodia microstachya*. Occurs on sandstone plateaus and hill crests. Not a Wetland. (BVG1M: 28c).

**Short description:** *Allocasuarina littoralis* +/- *Acacia crassicaarpa* low woodland on sandstone plateaus

**Supplementary descriptions:** Neldner and Clarkson (in prep), 141

**Subregions:** 2

**Protected areas:** Cape Melville NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.10.14: A variant (vegetation unit 141A) occurs on the crests and upper slopes of the high mountains west of Lockhart River. It forms an open heath (1.3-2.0m tall) dominated by *Allocasuarina littoralis*, *Asteromyrtus lysicephala*, *Shonia tristigma*, *Choriceras tricornis* and *Hibbertia banksii* forma *banksii*. A sparse low shrub layer (0.5-1m tall) is also present, with *C. tricornis*, *Neofabricia myrtifolia* and *Hibbertia* spp. dominating this layer.

**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 3.10.15

**Description:** *Eucalyptus chlorophylla* (shiny-leaved box) low open woodland to low woodland. A very sparse sub-canopy often contains scattered *Melaleuca foliolosa*, *M. viridiflora* (broad-leaved teatree) or *Hakea persiehana*. The very sparse shrub layer contains a range of species including canopy species. The mid-dense grassy ground layer is often dominated by *Themeda triandra* (kangaroo grass) and/or *Heteropogon* spp. (spear grass). Occurs on sandstone hillslopes. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

3.10.15a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.15. *Eucalyptus chlorophylla* (shiny-leaved box) trees dominate the very sparse to sparse canopy (6-10m tall). *Melaleuca viridiflora* (broad-leaved teatree) and *M. foliolosa* (scale-leaved teatree) frequently occur as scattered sub-canopy trees (4-8m tall). Scattered shrubs (0.5-2m tall) are frequently present. The sparse ground layer is usually dominated by the perennial grasses *Themeda triandra* (kangaroo grass), *Heteropogon triticeus* (giant speargrass) and *H. contortus* (black speargrass). Occurs on sandstone hillslopes. Not a Wetland. (BVG1M: 9b).

3.10.15b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.15. *Eucalyptus chlorophylla* (shiny-leaved box) dominates the very sparse to sparse canopy. Other *Eucalyptus* spp. are occasionally present in the canopy. Scattered *Hakea persiehana* (bootlace oak), *Melaleuca viridiflora* (broad-leaved teatree) and *Erythrophleum chlorostachys* (Cooktown ironwood) are sometimes present as sub-canopy trees. A shrub layer is rarely formed but scattered *Dolichandrone alternifolia* (lemonwood), *Grewia savannicola* (dog's balls) and *M. viridiflora* shrubs up to 2m tall may be present. The ground layer is sparse to dense and dominated by the grasses *Heteropogon contortus* (black speargrass), *Sarga plumosum* (plume sorghum), *Themeda arguens*, *T. triandra* (kangaroo grass) and *Dichanthium sericeum* subsp. *sericeum* (Queensland bluegrass). Occurs on sandstone hills. Not a Wetland. (BVG1M: 9b).

**Short description:** *Eucalyptus chlorophylla* low open woodland on sandstone hillslopes

**Supplementary descriptions:**

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

**Protected areas:** Muundhi (Jack River) NP (CYPAL), Olkola NP (CYPAL), Alwal NP (CYPAL), Cape Melville NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.10.15: South of bioregion.  
3.10.15a: South of bioregion.  
3.10.15b: south eastern bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 25000 ha; Remnant 2021 24000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.10.16

**Description:** Low open woodland to woodland of *Melaleuca stenostachya* (fibre-barked teatree). A tall shrubland of *M. citrolens* (scrub teatree) may occur in some areas. Occurs on sandstone ranges & footslopes. Not a Wetland. (BVG1M: 21b).

Vegetation communities in this regional ecosystem include:

3.10.16a: *Melaleuca stenostachya* (fibre-barked teatree) low woodland to low open woodland +/- *Grevillea glauca* (clothes-peg *Grevillea*). A very sparse subcanopy can contain *Petalostigma banksii* (smooth-leaved quinine). Scattered *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia* spp. often occur as emergents. The sparse to very sparse shrublayer often includes *Jacksonia thesioides* (broombush), *P. banksii*, *Hovea parvicalyx* and *Acacia* spp. The mid-dense to sparse ground layer often contains *Schoenus sparteus*, *Panicum* spp., *Schizachyrium* spp. On some exposed windswept ridges the community is reduced to an open shrubland of *M. stenostachya* with scattered *Xanthorrhoea johnsonii*. Occurs on sandstone ranges. Not a Wetland. (BVG1M: 21b).

3.10.16b: *Melaleuca citrolens* (scrub teatree) low woodland commonly with *M. foliolosa* (scale-leaved teatree). A sparse low shrub layer is usually present and can contain canopy species, *Calytrix leptophylla*, *Acacia umbellata* and *Petalostigma banksii* (smooth leaved quinine). The ground layer is short and very sparse, with *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Fimbristylis* spp. being the most commonly encountered species. Occurs on sandstone plateaus. Not a Wetland. (BVG1M: 21b).

3.10.16c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.16b. Tall shrubs of *Melaleuca citrolens* (scrub teatree) usually with *M. foliolosa* (scale-leaved teatree) dominate the very sparse to sparse canopy. A sparse low shrub layer is usually present. The ground layer is short and very sparse, with *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Fimbristylis* spp. being the most commonly encountered species. Bare areas are common. Occurs on sandstone footslopes. Not a Wetland. (BVG1M: 21b).

3.10.16x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.10.16. *Melaleuca viridiflora* (broad-leaved teatree) together with *Neofabricia myrtifolia* (yellow teatree), *Allocasuarina littoralis* (black sheoak), *Asteromyrtus brassii* and sometimes *Acacia brassii* (Brass's wattle) dominate the sparse canopy (4-12m tall). *Corymbia nesophila* (Melville Island bloodwood) and less frequently *Eucalyptus tetrodonta* (Darwin stringybark) are present as emergent trees (9-16m tall). The same species dominate the sparse low tree layer (2-5m tall). A sparse shrub layer (0.5-3m tall) is present, with *Acacia calyculata*, *Persoonia falcata* (geebung), *Hibbertia banksii* forma *banksii*, *Melaleuca viridiflora*, *Asteromyrtus lysicephala* (back to front bush) and *Choriceras tricornis* (Cape Choriceras) occurring at the highest densities. The ground layer is sparse, and frequently dominated by *Xanthorrhoea johnsonii* (grass tree). Commonly encountered graminoids include *Eriachne* spp. (wanderrie grasses), *Schoenus sparteus* and *Cleistochloa* spp. Occurs on sandstone ranges & footslopes. Not a Wetland. (BVG1M: 28c).

3.10.16x2: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.3.49. *Melaleuca viridiflora* (broad-leaved teatree) dominates the very sparse canopy (5-12m tall). Scattered emergent trees of *Corymbia clarksoniana* (Clarkson's bloodwood) (7-14m tall) are frequently present. Other *Corymbia* spp. and *Eucalyptus* spp. occur occasionally as emergent trees, with *C. polycarpa* replacing *C. clarksoniana* on the Mitchell fan. A sparse to very sparse low tree layer (2-8m tall) dominated by *Petalostigma banksii* (smooth-leaved quinine) is usually present. A very sparse shrub layer (usually <0.5m) dominated by *M. viridiflora* and *P. banksii* juveniles is present at most sites. The ground layer is sparse to mid-dense and dominated by grasses. *Schizachyrium fragile* (firegrass), *Sarga plumosum* (plume sorghum), *Eriachne* spp. (wanderrie grasses) and *Eremochloa bimaclulata* (poverty grass) are the common dominants in this layer. Occurs on sandstone plateaus. Not a Wetland. (BVG1M: 21a).

3.10.16x3: *Melaleuca foliolosa* +/- *M. viridiflora* low woodland to shrubland. *Melaleuca foliolosa* (scale-leaved teatree) dominates the canopy with *M. viridiflora* (broad-leaved paperbark) commonly occurring. *M. viridiflora* may occasionally be dominant. On hillslopes and plateaus of sandstone islands. Not a Wetland. (BVG1M: 21b).

**Short description:** *Melaleuca stenostachya* +/- *M. citrolens* low open woodland on sandstone ranges

### Supplementary descriptions:

**Subregions:** 5, 6, (1), (2), (4), (9.3), (8), (2.4), (9)

**Protected areas:** Muundhi (Jack River) NP (CYPAL), Cape Melville NP (CYPAL), Oikola NP (CYPAL), Biniirr NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Bromley (Ampulin) NP (CYPAL), Alwal NP (CYPAL), Juunju Daarra Nhirrpan NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Flinders Group NP (CYPAL), Ngaynggarr NP (CYPAL), Palmer Goldfield RR, Wuthathi (Shelburne Bay) NP (CYPAL), Marpa National Park (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

<b>Special values:</b>	3.10.16: The near threatened plant species <i>Homoranthus tropicus</i> occurs in this regional ecosystem. It is potential habitat for the vulnerable plant species <i>Hardenbergia</i> sp. (Mt Mulligan J.R.Clarkson 5775).
<b>Comments:</b>	3.10.16: The. Southern and south-east of the bioregion. 3.10.16a: Occurs on sandstone ranges around the Laura Basin in the south-east of the bioregion. 3.10.16b: Previously mapped as 3.10.16c. Bare areas are common. Laura sandstones in the south of the bioregion. 3.10.16c: Laura sandstone in the south of the bioregion. 3.10.16x1: Lockhart River. 3.10.16x2: Central and northern Peninsula. 3.10.16x3: Generally occurs as narrow bands running down small gullies on steeper slopes in a mosaic with 3.10.19x3 on Stanley island. Areas of this community may occur below mappable scales. This community occurs as a <i>Melaleuca viridiflora</i> dominated shrubland on Rongahu Island. Restricted to the sandstone islands in Princess Charlotte Bay (Stanley Island and Rongahu Island).
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 81000 ha; Remnant 2021 81000 ha
<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 3.10.17

<b>Description:</b>	[RE not in use] <sup>2</sup> : This regional ecosystem is now mapped as 3.7.6x1. <i>Neofabricia myrtifolia</i> (yellow teatree) dominates the very sparse shrub layer (3-4m tall). <i>Jacksonia thesioides</i> , <i>Lithomyrtus retusa</i> , <i>Acacia brassii</i> and <i>Grevillea pteridifolia</i> (toothbrush grevillea) are frequent subdominant shrubs. <i>Leucopogon lavarackii</i> occurs frequently as a low shrub (0.5m tall). The ground is mainly bare, with only occasional graminoids present. Occurs on sandstone breakaways. Not a Wetland. (BVG1M: 29a).
<b>Short description:</b>	<i>Neofabricia myrtifolia</i> and <i>Acacia calyculata</i> tall open shrubland on sandstone breakaways
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 166
<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>	3.10.17: This RE has moved to 3.7.6x1. Janet Range area.
<b>Estimated extent:</b> <sup>1</sup>	
<b>VM class:</b>	Of concern
<b>Biodiversity status:</b>	Of concern
<b>Biodiversity status notes:</b>	

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## Regional ecosystem 3.10.18

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.5.19. *Asteromyrtus lysicephala* (back to front bush), *Neofabricia myrtifolia* (yellow teatree), *Choriceras tricornis* (Cape Choriceras) and *Jacksonia thesioides* occur consistently at high stem densities in the shrub layer (0.5-3m tall). A variety of other shrubs may be present and locally abundant. Scattered emergent shrubs and trees (1.5-10m tall) are often present, with *Allocasuarina littoralis* (black sheoak) and *Grevillea pteridifolia* (toothbrush grevillea) usually occurring at high densities. A sparse, low shrub layer (0.5-1.8m tall) is often present. The ground layer is short and open, with *Schoenus sparteus* the most consistent and abundant graminoids. Associated with undulating plains and slopes of sandstone plateaus. Not a Wetland. (BVG1M: 29a).

**Short description:** *Asteromyrtus lysicephala* +/- *Jacksonia thesioides* open heath on undulating plains and slopes

**Supplementary descriptions:** Neldner and Clarkson (in prep), 171

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.10.18: A variant (vegetation unit 171A) is often seen in areas that appear to have been subject to very frequent fires. It has the appearance of a very sparse low open woodland with scattered *Grevillea glauca* (bushman's clothes pegs) and *Banksia dentata* (swamp banksia) trees 3-4 metres tall. Scattered shrubs (0.5-1.5m tall) are present but are very sparse. The ground layer is sparse and dominated by *Schoenus sparteus*. This RE has moved to 3.5.19x1. North-east.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.10.19

**Description:** Mixed species dwarf open heath often with *Asteromyrtus lysicephala*, *Jacksonia thesioides* and *Xanthorrhoea johnsonii*. A *Schizachyrium pachyarthron* and *Lomandra longifolia* closed tussock grassland may sometimes occur. Occurs on exposed plateaus and headlands of a variety of geology types, including sandstone. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.10.19a: *Asteromyrtus lysicephala*, *Jacksonia thesioides* and *Xanthorrhoea johnsonii* dwarf open heath to dwarf open shrubland commonly with *Allocasuarina littoralis*, *Choriceras tricornis*, *Gompholobium nitidum*, *Leucopogon* spp. and *Neofabricia myrtifolia*. Emergent *Banksia dentata* or *Xanthorrhoea* sp. can be present. The sparse to mid-dense ground layer is usually dominated by *Schoenus sparteus* and occasionally *Cleistochloa* spp. with a range of sedges and hydrophilic forbs present. Occurs on exposed plateaus of a variety of geology types, including sandstone. Not a Wetland. (BVG1M: 29a).

3.10.19b: *Schizachyrium pachyarthron* and *Lomandra longifolia* closed tussock grassland commonly with *Heteropogon triticeus*, *Themeda triandra* and *Eragrostis spartinoidea*. Occurs on exposed headlands of a variety of geology types, including sandstone. Not a Wetland. (BVG1M: 29a).

3.10.19c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.19x1. This unit consists of bare rock pavements with small areas of sparse herblands composed of ephemeral herbs where a little soil accumulates. In the crevices between the rocks or in depressions where a moderate depth of soil has accumulated, a tall shrubland may develop. This is usually dominated by deciduous species. Occurs on bare rock pavements on sandstone hills where a little soil accumulates. Occurs on bare rock pavements on sandstone hills where a little soil accumulates. Not a Wetland. (BVG1M: 29b).

3.10.19x1: This unit consists of bare rock pavements with small areas of sparse herblands composed of ephemeral herbs where a little soil accumulates. In the crevices between the rocks or in depressions where a moderate depth of soil has accumulated, a tall shrubland may develop. This is usually dominated by deciduous species. Occurs on bare rock pavements on sandstone hills where a little soil accumulates. Not a Wetland. (BVG1M: 29b).

3.10.19x2: Mixed low tussock grasslands dominated by a mix of *Thaumastochloa* spp., *Heteropogon triticeus* (Giant spear grass), *Schizachyrium* spp. (fire grass) and *Chrysopogon filipes* (native vetiver). Other grasses present may include *Cleistochloa subjuncea*. The hardy low perennial *Microstachya chamaelea* and a mix of forbs and shrub seedlings may be present. Occurs on exposed headlands of sandstone islands. Not a Wetland. (BVG1M: 32b).

3.10.19x3: *Triodia microstachya* (porcupine grass) grassland with *Heteropogon triticeus* (giant spear grass) and shrubs of *Acacia humifusa*, *Hibbertia banksii* (rusty guinea flower), *Parinari nonda* (nonda plum) or *Corymbia stockeri* (gum-topped bloodwood). The shrub species may form an emergent layer along with *Livistona muelleri*. Rocky and bouldery sandstone hills. Not a Wetland. (BVG1M: 32b).

**Short description:** *Asteromyrtus lysicephala* and *Neofabricia myrtifolia* dwarf open heath or *Schizachyrium pachyarthron* closed tussock grassland on sandstone plateaus and headlands

**Supplementary descriptions:**

**Subregions:** 5, 2, (6), (4), (9)

**Protected areas:** Muundhi (Jack River) NP (CYPAL), Cape Melville NP (CYPAL), Juunju Daarra Nhirrpan NP (CYPAL), Biniirr NP (CYPAL), Flinders Group NP (CYPAL), Rinyirru (Lakefield) NP (CYPAL), Marpa National Park (CYPAL), Melsonby (Gaarraay) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.10.19: Potential habitat for NCA listed species: *Lepturus geminatus*.

<b>Comments:</b>	<p>3.10.19: The vegetation communities are distinguished by their geographical location. In sheltered positions, e.g. between rocks, the shrubs may reach 1m in height. North-east.</p> <p>3.10.19a: North-east.</p> <p>3.10.19b: Occurs on headlands on the east coast of the Peninsula.</p> <p>3.10.19c: Clack Island, Flinders Group.</p> <p>3.10.19x1: Was previously mapped as 3.10.19c. Clack Island, Flinders Group.</p> <p>3.10.19x2: These grasslands have a similar species composition to grasslands on granite and rhyolite headlands and islands further north on the CYP coast. Restricted to sandstone islands of Princess Charlotte Bay.</p> <p>3.10.19x3: This community may form a mosaic with 3.10.16x3 with 3.10.16x3 in the steeper gullies of hill slopes and 3.10.19x3 on the rocky and bouldery ridgelines between. Is restricted to the sandstone islands of the Flinders Island group, Princess Charlotte Bay. <i>Passiflora foetida</i> was present at visited sites, but not abundant.</p>
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 11000 ha; Remnant 2021 11000 ha
<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 3.10.20

**Description:** Sedgeland, fernland and closed heathlands associated with springs on sandstone tablelands. RE defunct. Palustrine. (BVG1M: 34c).

Vegetation communities in this regional ecosystem include:

3.10.20a: *Gahnia sieberiana* and *Asteromyrtus lysicephala* shrubland to open sedgeland *Banksia robur*. Emergent *Melaleuca quinquenervia* and *Pandanus* spp. usually occur. A mid-dense groundlayer is often dominated by *Balioskion tetraphyllum* and a range of other sedges. Associated with drainage swamps on elevated sandstone plateaus. Palustrine. (BVG1M: 34c).

3.10.20b: *Sticherus* spp. (shield ferns) closed fernland but also including *Gleichenia* spp. (coral ferns) and *Lindsaea* spp. (necklace ferns). Other species that may occur include *Bromheadia pulchra*, *Dendrobium lobbii*, *Isachne confusa* and *Balioskion tetraphyllum*. Scattered *Asteromyrtus* spp., *Dillenia alata* (red beech) or *Neofabricia myrtifolia* often occur as emergent shrubs or low trees. Occurs in spring-fed, sheltered gorges in the sandstone ranges of the northern Cape York Peninsula. Palustrine. (BVG1M: 34e).

**Short description:** Sedgeland, fernland and closed heathlands associated with springs on sandstone tablelands

**Supplementary descriptions:**

**Subregions:** 5, 2, (7)

**Protected areas:** Cape Melville NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Palustrine

**Special values:** 3.10.20: Potential habitat for NCA listed species: *Dallwatsonia felliana*, *Spathoglottis plicata*.  
3.10.20a: High diversity of sedges. In sheltered gorges, closed fernlands dominated by *Sticherus* sp. with *Gleichenia* sp. and *Lindsaea* sp. occur.

**Comments:** 3.10.20: This RE is a point coverage included in the Spring database. Vegetation communities associated with these springs may not be mappable at 1:100 000 scale. This RE may also include communities associated with springs found on land zone 5 and 7.  
3.10.20a: These swamps receive fairly continuous seepage from the surrounding sandstone areas throughout the year. Vegetation communities associated with these springs may not be mappable at 1:100 000 scale. This RE may also include communities associated with springs found on land zone 5 and 7. Occurs on sandstone tablelands to the west and south of Cape Flattery.  
3.10.20b: Vegetation communities associated with these springs may not be mappable at 1:100 000 scale. This RE may also include communities associated with springs found on land zone 5 and 7. Occurs in sheltered gorges in sandstone ranges of the Richardson Uplands.

**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 3.10.21

**Description:** *Corymbia nesophila* (Melville Island bloodwood) woodland to open forest of commonly with *Eucalyptus crebra* (narrow-leaved ironbark) and *E. tetradonta* (Darwin stringybark). There is usually a very sparse to sparse sub-canopy tree layer. The shrub layer ranges from very sparse to mid-dense (dependant on fire regime). Occurs on sandstone plateaus and slopes. Not a Wetland. (BVG1M: 14c).

Vegetation communities in this regional ecosystem include:

3.10.21a: [RE not in use]<sup>2</sup>: This vegetation community is mapped as 3.10.21. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse canopy. *Eucalyptus crebra* (narrow-leaved ironbark) or *E. tetradonta* (Darwin stringybark) may be present as a subdominant canopy tree. A number of other *Eucalyptus* spp. or *Corymbia* spp. may form minor components of the canopy. *E. brassiana* (Cape York red gum) may occur as a codominant canopy species in some areas. The very sparse sub-canopy tree layer is dominated by *C. nesophila*, *Acacia flavescens* (powder puff wattle), *Lophostemon suaveolens* (swamp mahogany) and *Grevillea glauca* (bushman's clothes peg). The shrub layer is very sparse. *Acacia flavescens*, *Erythrophleum chlorostachys* (Cooktown ironwood), *C. nesophila* and *Persoonia falcata* (geebung) are the most frequently encountered species. The ground layer varies from sparse to mid-dense. The dominant grasses are *Themeda triandra* (kangaroo grass), *Eriachne pallescens* (wanderrie grass), *Aristida* spp. (three-awned speargrass) and *Heteropogon triticeus* (giant speargrass). Common forbs include *Spermacoce* spp., *Cyanthillium cinereum* and *Flemingia parviflora* (flamingia). Occurs on sandstone plateaus. Not a Wetland. (BVG1M: 14c).

3.10.21b: [RE not in use]<sup>2</sup>: This vegetation community is mapped as 3.10.21. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse canopy. *Eucalyptus crebra* (narrow-leaved ironbark) may be present as a subdominant canopy tree. A number of other *Eucalyptus* spp. or *Corymbia* spp. may form minor components of the canopy. *E. brassiana* (Cape York red gum) occurs as a codominant canopy species at a number of sites. The very sparse sub-canopy tree layer is dominated by *C. nesophila*, *Acacia flavescens* (powder puff wattle), *Lophostemon suaveolens* (swamp mahogany) and *Grevillea glauca* (bushman's clothes peg). The shrub layer is very sparse. *A. flavescens*, *Erythrophleum chlorostachys* (Cooktown ironwood), *C. nesophila* and *Persoonia falcata* (geebung) are the most frequently encountered species. The ground layer varies from sparse to mid-dense. The dominant grasses are *Themeda triandra* (kangaroo grass), *Eriachne pallescens* (wanderrie grass), *Aristida* spp. (three-awned speargrass) and *Heteropogon triticeus* (giant speargrass). Common forbs include *Spermacoce* spp., *Cyanthillium cinereum* and *Flemingia parviflora* (flamingia). Occurs on sandstone slopes. Not a Wetland. (BVG1M: 14c).

3.10.21c: [RE not in use]<sup>2</sup>: This vegetation community is mapped as 3.10.6a. *Eucalyptus tetradonta* (Darwin stringybark) and either *Corymbia nesophila* (Melville Island bloodwood) or *C. stockeri* subsp. *peninsularis* (gum-topped bloodwood) usually co dominate to form the canopy (13-28m tall). *E. leptophleba* (Molloy red box) and sometimes *C. clarksoniana* (Clarkson's bloodwood) occur as scattered canopy or sub-canopy trees. *Erythrophleum chlorostachys* (Cooktown ironwood) and *C. confertiflora* (cabbage gum) frequently form a very sparse to sparse sub-canopy layer (12-18m tall). *Acacia rothii* (Roth's wattle), *Melaleuca viridiflora* (broad-leaved teatree), *Grevillea glauca* (bushman's clothes peg) and *Petalostigma* spp. (quinine) are also abundant in the sub-canopy layer but usually reach only 3-8m in height. A very sparse to mid-dense shrub layer (0.5-2m tall) dominated by shrubs and shrubby trees is always present. The ground layer is sparse to mid-dense and dominated by the grasses *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Heteropogon triticeus* (giant speargrass) and *Thaumatococcus* spp. frequent dominants. Occurs on sandstone slopes and plateaus. Not a Wetland. (BVG1M: 14a).

**Short description:** *Corymbia nesophila* +/- *Eucalyptus crebra* or *E. tetradonta* woodland to open forest on sandstone plateaus and slopes

### Supplementary descriptions:

**Subregions:** 2, 5

**Protected areas:** Cape Melville NP (CYPAL), Biniirr NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

### Special values:

**Comments:** 3.10.21: South-east of bioregion.  
3.10.21a: South-east of bioregion.  
3.10.21b: Restricted to sandstone slopes particularly. Southern Peninsula.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

## Regional ecosystem 3.11.1

**Description:** Evergreen to semi-deciduous mesophyll / notophyll vine forest composed of a mixture of deciduous and evergreen trees. *Aleurites moluccanus* (candlenut), *Argyrodendron polyandrum* (brown tulip oak), *Diospyros hebecarpa*, *Donella lanceolata*, *Dysoxylum oppositifolium* (pink mahogany), *Elaeocarpus arnhemicus* are frequent evergreen trees. Stem densities may be high in some areas. Frequent deciduous canopy trees include *Berrya javanica*, *Canarium australium* (scrub turpentine) and *Brachychiton velutinosus* (brush kurrajong). These trees may occur as emergents up to 45 metres tall in places. The mid-dense sub-canopy tree layers composed of a variety of species with *Cryptocarya cunninghamii*, *Rinorea bengalensis* forma *bengalensis* and *Strychnos minor* occurring often. The palm *Ptychosperma elegans* (solitaire palm) is sometimes present in the sub-canopy. A very sparse shrub/low tree layer is usually present and *Tritaxis australiensis* (Shipton's glory), *Aglaia euryanthera*, *C. hypospodia*, *Glycosmis trifoliata*, *Atractocarpus sessilis* (native gardenia), *Cleistanthus hylandii*, *Ixora timorensis* (black berry tree) and *Rinorea bengalensis* forma *bengalensis* occur frequently. Climbing palms, such as *Calamus caryotoides* (fish-tail lawyer cane) and *C. australis* (hairy mary) and vines such as *Flagellaria indica* (supplejack) and *Austrosteenisia blackii* (bloodvine), are commonly encountered. Epiphytes are sparse. *Asplenium australasicum* (bird's nest fern) is the most commonly encountered species. The ground layer is very sparse and composed mainly of seedlings. Occurs on coastal ranges. Not a Wetland. (BVG1M: 2d).

Vegetation communities in this regional ecosystem include:

3.11.1x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.11.1. Evergreen to semi-deciduous mesophyll / notophyll vine forest composed of a mixture of deciduous and evergreen trees. *Aleurites moluccanus* (candlenut), *Argyrodendron polyandrum* (brown tulip oak), *Diospyros hebecarpa*, *Donella lanceolata*, *Dysoxylum oppositifolium* (pink mahogany), *Elaeocarpus arnhemicus* are frequent evergreen trees. Stem densities may be high in some areas. Frequent deciduous canopy trees include *Berrya javanica*, *Canarium australium* (scrub turpentine) and *Brachychiton velutinosus* (brush kurrajong). These trees may occur as emergents up to 45 metres tall in places. The mid-dense sub-canopy tree layers composed of a variety of species with *Cryptocarya cunninghamii*, *Rinorea bengalensis* forma *bengalensis* and *Strychnos minor* occurring often. The palm *Ptychosperma elegans* (solitaire palm) is sometimes present in the sub-canopy. A very sparse shrub/low tree layer is usually present and *Tritaxis australiensis* (Shipton's glory), *Aglaia euryanthera*, *C. hypospodia*, *Glycosmis trifoliata*, *Atractocarpus sessilis* (native gardenia), *Cleistanthus hylandii*, *Ixora timorensis* (black berry tree) and *Rinorea bengalensis* forma *bengalensis* occur frequently. Climbing palms, such as *Calamus caryotoides* (fish-tail lawyer cane) and *C. australis* (hairy mary) and vines such as *Flagellaria indica* (supplejack) and *Austrosteenisia blackii* (bloodvine), are commonly encountered. Epiphytes are sparse. *Asplenium australasicum* (bird's nest fern) is the most commonly encountered species. The ground layer is very sparse and composed mainly of seedlings. Occurs on metamorphic slopes. Not a Wetland. (BVG1M: 5d).

3.11.1x1a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.1. The dense, even canopy (15-35m tall) is composed of a mixture of deciduous and evergreen trees. *Acacia midgleyi* (brown salwood) A. *polystachya* (a wattle), *Buchanania arborescens* (native mango), *Aleurites moluccanus* (candlenut), *Argyrodendron polyandrum* (brown tulip oak), *Diospyros hebecarpa*, *Dysoxylum oppositifolium* (pink mahogany), *Endiandra longipedicellata* (buff walnut) and *Grevillea baileyana* (Findlay's silky oak) are frequent evergreen trees. Stem densities may be high in some areas. Frequent deciduous canopy trees include *Berrya javanica*, *Canarium australium* (scrub turpentine) and *Brachychiton velutinosus* (brush kurrajong). These trees may occur as emergents up to 45 metres tall in places. The mid-dense sub-canopy tree layer (5-20m tall) is composed of a variety of species with *Chionanthus ramiflorus* (native olive), *Endiandra glauca* (coach walnut), *Rinorea bengalensis* forma *bengalensis* and *Strychnos minor* occurring often. The palm *Ptychosperma elegans* (solitaire palm) is sometimes present in the sub-canopy. A very sparse shrub/low tree layer (0.5-8m tall) is usually present. *Tritaxis australiensis* (Shipton's glory), *Tabernaemontana orientalis*, *Wilkiea rigidifolia*, *Micromelum minutum* (cluster berry), *Atractocarpus sessilis* (native gardenia), *Cleistanthus hylandii*, *Glycosmis trifoliata*, *Ixora timorensis* (black berry tree) and *Rinorea bengalensis* forma *bengalensis* occur frequently. Climbing palms, such as *Calamus caryotoides* (fish-tail lawyer cane) and *C. australis* (hairy mary) and vines such as *Flagellaria indica* (supplejack) and *Austrosteenisia blackii* (bloodvine), are commonly encountered. Epiphytes are sparse. *Asplenium australasicum* (bird's nest fern) is the most commonly encountered species. The ground layer is very sparse and composed mainly of seedlings. Occurs on metamorphic slopes. Not a Wetland. (BVG1M: 5d).

3.11.1x1b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.1. Deciduous and evergreen trees form a dense, more or less even canopy (20-35m tall). The deciduous trees with prominent buttressed trunks *Ficus albipila* var. *albipila* (fig) and *Tetrameles nudiflora* are common as emergents and can reach 45m tall. Frequent deciduous canopy trees include *Nauclea orientalis* (Leichhardt tree), *Bombax ceiba* (kapok), *Semecarpus australiensis* (tar tree), *Terminalia sericocarpa* (sovereignwood) and *Wrightia laevis* (white

cheesewood). *Castanospermum australe* (black bean) is a very common component of the canopy occurring at high stem densities in some areas. Other commonly encountered, evergreen, canopy trees include *Aleurites moluccanus* (candlenut), *Alstonia scholaris* (milky pine), *Argyrodendron polyandrum* (brown tulip oak), *Beilschmiedia obtusifolia* (black walnut), *Buchanania arborescens* (native mango), *Cryptocarya hypospodia* (northern laurel), *C. triplinervis* var. *riparia* (brown laurel), *Syzygium bamagense* (Bamaga satinash), *Ganophyllum falcatum* (scaly ash), *Calophyllum australianum* (calophyllum) and *Endiandra longipedicellata* (buff walnut). The sparse to mid-dense sub-canopy tree layer (15-25m tall) is composed of a variety of species including *Myristica globosa* subsp. *muelleri*, *Pisonia umbellifera* (cabbage wood), *Toeckia daemelianum* (Cape tamarind), *Mallotus* spp. and *Garcinia* spp. The palms *Caryota albertii*, *Ptychosperma elegans* (solitaire palm) and *Archontophoenix tuckeri* are often present. A very sparse shrub/low tree layer (1-12m tall) is usually present with *Cleistanthus apodus* (weeping cleistanthus), *Glycosmis trifoliata*, *Atractocarpus sessilis* (false gardenia), *Leea novoguineensis* (bandicoot berry), *Lunasia amara* var. *amara*, *Diospyros laurina* and *Ixora timorensis* (black berry tree) occurring frequently. Thin wiry vines such as *Flagellaria indica* (supplejack) are common. Climbing palms such as *Calamus australis* (hairy mary), *C. caryotoides* (fish-tail lawyer cane) and *C. warburgii* (wait a while) may be present. Epiphytes are sparse. The ground layer is very sparse and composed mainly of seedlings. Occurs on metamorphic slopes. Not a Wetland. (BVG1M: 2d).

<b>Short description:</b>	Evergreen to semi-deciduous mesophyll / notophyll vine forest on metamorphic slopes and plateaus on Iron and Mcllwraith Ranges
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 6; Tracey (1982), 4
<b>Subregions:</b>	1, (6)
<b>Protected areas:</b>	Kutini-Payamu (Iron Range) NP (CYPAL), KULLA (Mcllwraith Range) NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.11.1: Potential habitat for NCA listed species: <i>Cadetia wariana</i> , <i>Donella lanceolata</i> , <i>Eulophia pelorica</i> , <i>Hydriastele costata</i> , <i>Phlegmariurus phlegmarioides</i> , <i>Planchonella xylocarpa</i> , <i>Syzygium aqueum</i> .
<b>Comments:</b>	3.11.1: Was formerly mapped as 3.11.1x1. Cape Weymouth to Mcllwraith Range. 3.11.1x1: Cape Weymouth to Mcllwraith Range. 3.11.1x1a: Cape Weymouth to Mcllwraith Range. 3.11.1x1b: Lockhart River.
<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>	Subject to mining pressure and inappropriate fire regimes.

## Regional ecosystem 3.11.2

**Description:** Semi-deciduous mesophyll vine forest composed of a mixture of deciduous and evergreen trees. Frequent deciduous trees include *Bombax ceiba* (kapok), *Ficus* spp., *Falcata toona* (red siris), *Semecarpus australiensis* and *Terminalia sericocarpa* (Damsonwood). Some of these trees may be emergents up to 40 metres tall. Frequent evergreen canopy trees include *Alstonia scholaris* (milky pine), *Argyrodendron polyandrum* (brown tulip oak), *Beilschmiedia obtusifolia* (walnut), *Dysoxylum arborescens*, *Buchanania arborescens* (satinwood), *Cryptocarya mackinnoniana*, *Blepharocarya involucrigera* (rose butternut) and *Flindersia bourjotiana* (silver ash). The sparse to mid-dense sub-canopy tree layer is composed of a variety of species with the palm *Ptychosperma elegans* usually present. *Chionanthus ramiflorus*, *Mallotus* spp., *Calophyllum* sil, *Cryptocarya* spp. And *Diospyros hebecarpa* are frequent sub-canopy trees. A sparse to mid-dense shrub/low tree layer is usually present with *Glycosmis trifoliata*, *Aidia racemosa*, *Cyclophyllum coprosmoides*, *Micromelum minutum* and *Wilkiea rigidifolia* occurring frequently. Robust woody lianas such as *Entada phaseoloides* and thin wiry lianas are common. Climbing palms such as *Calamus australis* and *C. aruensis* frequently occur in the wettest sites. Epiphytes are only abundant in sheltered wet sites. The ground layer is very sparse, and composed mainly of seedlings. Occurs on metamorphic slopes. Not a Wetland. (BVG1M: 2d).

Vegetation communities in this regional ecosystem include:

3.11.2a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.2. The dense, more or less even canopy (18-32m tall) is composed of a mixture of deciduous and evergreen trees. Frequent deciduous trees include *Bombax ceiba* (kapok), *Ficus nodosa*, *F. racemosa* var. *racemosa*, *Nauclea orientalis* (Leichhardt tree), *Falcata toona* (red siris), *Semecarpus australiensis* and *Terminalia sericocarpa* (Damsonwood). Some of these trees may be emergents up to 40 metres tall. Frequent evergreen canopy trees include *Alstonia scholaris* (milky pine), *Argyrodendron polyandrum* (brown tulip oak), *Beilschmiedia obtusifolia* (walnut), *Dysoxylum arborescens*, *Buchanania arborescens* (satinwood), *Cryptocarya hypospodia*, *C. rhodosperma*, *Blepharocarya involucrigera* (rose butternut) and *Flindersia bourjotiana* (silver ash). The sparse to mid-dense sub-canopy tree layer (15-25m tall) is composed of a variety of species with the palm *Ptychosperma elegans* usually present. *Beilschmiedia obtusifolia*, *Myristica globosa* subsp. *muelleri*, *Calophyllum* sil, *Cryptocarya mackinnoniana*, *C. vulgaris* and *Diospyros hebecarpa* are frequent sub-canopy trees. A sparse to mid-dense shrub/low tree layer (1-12m tall) is usually present with *Brucea javanica*, *Mackinlaya confusa*, *Mallotus philippensis*, *Micromelum minutum* and *Myristica globosa* subsp. *muelleri* occurring frequently. Robust woody lianas such as *Entada phaseoloides* and thin wiry lianas are common. Climbing palms such as *Calamus australis* and *C. aruensis* frequently occur in the wettest sites. Epiphytes are only abundant in sheltered wet sites. The ground layer is very sparse, and composed mainly of seedlings. Occurs on metamorphic slopes. Not a Wetland. (BVG1M: 2d).

3.11.2b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.105c (mainland) and 3.3.38c (Torres Strait). A tall semi-deciduous notophyll/microphyll vine thicket. The canopy varies from 18 to 30m with occasional emergents of *Falcata toona* (red siris), *Bombax ceiba* (kapok) and *Canarium australianum* (scrub turpentine) up to 33m tall. *Buchanania arborescens* (native mango), *Millettia pinnata* (millettia), *Barringtonia calypttrata* (cornbeef wood), *Carallia brachiata* (corkwood), *Elaeocarpus arnhemicus* (Arnhem land quandang), *Mallotus philippensis* (red camala) and *Pleiogynium timorense* (Burdekin plum) are frequent dominant trees. *Miliusa traceyi*, *Drypetes deplanchei* (yellow tulip) *Memecylon pauciflorum*, *Aidia racemosa* (wild randia) and *Arytera bifoliolata* (Cape coogara) occur commonly in the sparse shrub layer (0.5-4m tall). The ground layer is very sparse with a thick layer of leaf litter. Occurs on metamorphic slopes below sandstone cap on hills. Not a Wetland. (BVG1M: 7b).

<b>Short description:</b>	Semi-deciduous mesophyll vine forest on metamorphic ranges in the south
<b>Supplementary descriptions:</b>	Stanton & Fell (2005) 39, 35
<b>Subregions:</b>	2, 5, (1)
<b>Protected areas:</b>	Biniirr NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Cape Melville NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.11.2: The vulnerable species <i>Arenga australasica</i> has been recorded in this ecosystem. 3.11.2a: The vulnerable species <i>Arenga australasica</i> has been recorded in this ecosystem.
<b>Comments:</b>	3.11.2: Mount Stuckey and Mount Altamoui area. 3.11.2a: Mount Stuckey area. 3.11.2b: This vegetation community has moved to 3.10.5c. The areas in Torres Strait have moved to 3.3.38c. Mainly in the Laura Basin.
<b>Estimated extent:</b> <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 3.11.3

**Description:** Simple evergreen notophyll vine forest dominated mainly by *Acacia polystachya* (a wattle), *A. midgleyi* (brown salwood) or *Blepharocarya involucrigera* (rose butternut). *Canarium australianum* (scrub turpentine), *Grevillea baileyana* (Findlay's silky oak) *Lophostemon suaveolens* (swamp mahogany), *Argyrodendron polyandrum* (brown tulip oak) and *Buchanania arborescens* (native mango) are often present and subdominant in the canopy. *Acacia* spp. form a sparse emergent layer in places. The sub-canopy layer consists of a variety of evergreen species with *Cryptocarya cunninghamii* (coconut laurel), *C. vulgaris* (northern laurel), *Dysoxylum acutangulum*, *Endiandra glauca* (coach walnut) and *Chionanthus ramiflorus* (native olive) the most frequent trees. A sparse, low tree layer is usually present with *Atractocarpus sessilis* (native gardenia), *Diploglottis macrantha*, *Tabernaemontana orientalis*, *Cryptocarya claudiana*, *Wilkia rigidifolia* and *Cupaniopsis flagelliformis* (brown tuckeroo) frequently present in this layer. Scattered slender vines such as *Flagellaria indica* (supplejack) and *Tetracera nordtiana* var. *nordtiana*, are frequent. The climbing palms, *Calamus caryotoides* (fish-tail lawyer vine) and *C. australis* (hairy mary) are often present, and form dense thickets in disturbed areas. Epiphytes such as *Drynaria quercifolia* are relatively scarce. A very sparse ground layer is composed of seedling trees, graminoids and ferns. Occurs on exposed metamorphic and granitic slopes. Not a Wetland. (BVG1M: 5d).

Vegetation communities in this regional ecosystem include:

3.11.3x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.7. *Eucalyptus brassiana* (Cape York red gum) and *Corymbia clarksoniana* (Clarkson's bloodwood) are consistently present and co dominate the mid-dense canopy (10-15m tall). A number of other *Eucalyptus* spp. and *Corymbia* spp. may be present. The ironbarks *E. crebra* (narrow-leaved ironbark), *E. cullenii* (Cullen's ironbark) and *E. drepanophylla* (grey ironbark) are often common on exposed ridges. The sparse to mid-dense sub-canopy tree layer (6-10m tall) is dominated by *Allocasuarina littoralis* (black sheoak), *Corymbia clarksoniana* and *Melaleuca nervosa* (woodland paperbark). The shrub layer (0.5-3m tall) is usually sparse and frequently includes *Alyxia spicata* (chain fruit), *Breynia cernua* (dwarf's apple), *C. clarksoniana*, *Flueggea virosa* subsp. *melanthesoides* and *Planchonia careya* (cocky apple). This layer may be locally dominated by *Dodonaea polyandra* (hop bush) or *Xanthorrhoea johnsonii* (grass tree). The ground layer is very sparse and usually dominated by *Imperata cylindrica* (blady grass) and *Heteropogon triticeus* (giant speargrass). Occurs on metamorphic ranges. Not a Wetland. (BVG1M: 9c).

**Short description:** Simple evergreen notophyll vine forest on exposed metamorphic and granitic slopes

**Supplementary descriptions:** Neldner and Clarkson (in prep), 26; Tracey (1982), 12a, 12b

**Subregions:** 1, 2, (6), (7.9), (5)

**Protected areas:** Kutini-Payamu (Iron Range) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Mount Cook NP, Ngalba-bulal NP (CYPAL), Endeavour River NP, Annan River (Yuku Baja-Muliku) RR, Biniirr NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.11.3: The vulnerable plant species *Lasjia claudiensis* and *Cadetia wariana*, and near threatened species *Acmena mackinnoniana*, *Margaritaria indica* and *Planchonella xylocarpa* occur in this ecosystem. High numbers of endemic plant species. Large numbers of near threatened butterfly species.

**Comments:** 3.11.3: Iron Range and also near Cooktown. Probable mixed forest community produced by irregular fires or cyclonic damage.

**Estimated extent:**<sup>1</sup> Pre-clearing 18000 ha; Remnant 2021 18000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.11.4

**Description:** *Corymbia nesophila* (Melville Island bloodwood) open forest usually with *C. intermedia* (pink bloodwood). A number of other Eucalypts may form minor components of the canopy. The very sparse to mid-dense sub-canopy tree layer is dominated by *Acacia flavescens* (powder puff wattle), *A. crassicaarpa* (spoon tree), *Lophostemon suaveolens* (swamp mahogany), *C. nesophila*, *Erythrophleum chlorostachys* (Cooktown ironwood) and *Allocasuarina littoralis* (black sheoak). Scattered *Planchonia careya* and *Alphitonia pomaderroides* low trees form a sparse layer. The shrub layer varies from very sparse to mid-dense. *Acacia crassicaarpa*, *A. flavescens*, *Erythrophleum chlorostachys*, *C. nesophila*, *Alphitonia pomaderroides* (soapbush) and *Planchonia careya* (cocky apple) are the most commonly encountered dominant species in this layer. *Themeda triandra* (kangaroo grass), *Eriachne trisetata*, *Imperata cylindrica* (blady grass) and *Heteropogon triticeus* (giant speargrass) are frequent dominant species in the very sparse to mid-dense ground layer. Occurs on hills and ranges. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* +/- *Eucalyptus* spp. open forest on wetter ranges in south-east

**Supplementary descriptions:** Neldner and Clarkson (in prep), 41, 41A, 41B; Tracey (1982), 16j

**Subregions:** 2, (9.3), (7.9)

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

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.11.4: South-east of Cape York Peninsula bioregion and adjacent Wet Tropics bioregion.

**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 3.11.5

**Description:** *Corymbia clarksoniana* (Clarkson's bloodwood) open forest often with *C. tessellaris* (Moreton Bay ash) and *Acacia polystachya* subdominant. *C. novoguineensis* and *C. intermedia* (pink bloodwood) dominated at sites where *C. clarksoniana* was absent. The very sparse to mid-dense sub-canopy tree layer is dominated by *Acacia flavescens* (powder puff wattle), *A. polystachya*, *A. crassicaarpa* (spoon tree) and *Mallotus* spp. The shrub layer (0.2-2m tall) varies from very sparse to dense with *Antidesma ghaesembilla*, *Flueggea virosa* subsp. *melanthesoides* and *Planchonia careya* (cocky apple) the most frequent dominant species. This layer may be dense in places and dominated by pioneer closed forest species. The ground layer varies from very sparse to dense with dominant species include *Imperata cylindrica* (blady grass), *Panicum trichoides* and *Flemingia parviflora*. Occurs on coastal metamorphic ranges. Not a Wetland. (BVG1M: 9c).

**Short description:** *Corymbia clarksoniana* +/- *C. tessellaris* open forest on metamorphic coastal ranges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 37-11, 44-11.

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

**Protected areas:** Kutini-Payamu (Iron Range) NP (CYPAL), Cape Melville NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Annan River (Yuku Baja-Muliku) RR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.11.5: 3.11.6c is amalgamated into this RE. Veg management status and biodiversity status under review. Lockhart River.

**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 3.11.6

**Description:** *Eucalyptus platyphylla* (poplar gum) woodland. This species may be completely leafless at the end of the dry season. Scattered trees of *Corymbia clarksoniana* (Clarkson's bloodwood), *C. nesophila* (Melville Island bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) are often present in the canopy. A few sub-canopy trees may be present. Isolated low shrubs of *Melaleuca viridiflora* (broad-leaved teatree), *Planchonia careya* (cocky apple) and *Eucalyptus* spp. or *Corymbia* spp. may be present but rarely form a conspicuous layer. The ground layer is mid-dense to dense and dominated by grass species predominantly *Heteropogon contortus* (black speargrass) and *Themeda triandra* (kangaroo grass). Occurs on metamorphic hills. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

3.11.6a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped in as 7.11.21a. *Eucalyptus platyphylla* (poplar gum) dominates the mid-dense canopy (15-20m tall). *E. leptophleba* (Molloy red box) is usually codominant, and *Corymbia intermedia* (pink bloodwood), *C. tessellaris* (Moreton Bay ash) and *Erythrophleum chlorostachys* (Cooktown ironwood) occur frequently. A mid-dense sub-canopy layer (4-13m tall) is usually present with *Planchonia careya* (cocky apple) and *Acacia flavescens* (powder puff wattle) often present in this layer. A mid-dense shrub layer (0.5-4m tall) is present, and frequently contains rainforest pioneer species. The ground layer is mid-dense and dominated by the grasses, *Themeda triandra* (kangaroo grass), *Imperata cylindrica* (blady grass) and *Arundinella setosa* (cockatoo grass). Occurs on slopes and crests of metamorphic hills. Not a Wetland. (BVG1M: 9b).

3.11.6b: [RE not in use]<sup>2</sup>: This vegetation unit is now mapped as 3.11.6. *Eucalyptus platyphylla* (poplar gum) woodland. This species may be completely leafless at the end of the dry season. Scattered trees of *Corymbia clarksoniana* (Clarkson's bloodwood), *C. nesophila* (Melville Island bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood) are often present in the canopy. A few sub-canopy trees may be present. Isolated low shrubs of *Melaleuca viridiflora* (broad-leaved teatree), *Planchonia careya* (cocky apple) and *Eucalyptus* spp. or *Corymbia* spp. may be present but rarely form a conspicuous layer. The ground layer is mid-dense to dense and dominated by grass species predominantly *Heteropogon contortus* (black speargrass) and *Themeda triandra* (kangaroo grass). Occurs on slopes of metamorphic hills. Not a Wetland. (BVG1M: 9b).

3.11.6c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.5. *Corymbia tessellaris* (Moreton Bay ash) dominates the sparse to mid-dense canopy (7-26m tall), usually with *C. clarksoniana* (Clarkson's bloodwood) codominant. *Acacia crassicaarpa* (spoon tree), *Lophostemon suaveolens* (swamp mahogany) and other *Eucalyptus* spp. or *Corymbia* spp. may be present as subdominant trees. A very sparse to mid-dense sub-canopy tree layer (3-15m tall) is dominated by *Acacia flavescens* (powderpuff wattle), *A. crassicaarpa*, *C. tessellaris* and *Parinari nonda* (nonda). At some sites either *Melaleuca viridiflora* (broad-leaved teatree) or *M. dealbata* (silver-leaved paperbark) forms a conspicuous sub-canopy layer. The shrub layer (0.5-5m tall) varies from very sparse to sparse. *Antidesma ghaesembilla* (black currant), *Flueggea virosa* subsp. *melanthesoides* (white currant), *Canarium australium* (scrub turpentine) and *Acacia leptocarpa* (wattle) are the most commonly encountered species in this layer. The ground layer is very sparse to dense, with *Imperata cylindrica* (blady grass), *Heteropogon triticeus* (giant speargrass), *Scleria* spp. and *Mnesithea rottboellioides* (northern cane grass) frequent dominant species. Occurs on metamorphic hills & slopes. Not a Wetland. (BVG1M: 9c).

**Short description:** *Eucalyptus platyphylla* +/- *E. leptophleba* +/- *Corymbia nesophila* open forest to woodland on hill slopes

### Supplementary descriptions:

**Subregions:** 2, (5), (7.9)

**Protected areas:** Annan River (Yuku Baja-Muliku) NP, Juunju Daarrba Nhirrpan NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Endeavour River NP, Mount Cook NP, Keatings Lagoon CP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

### Special values:

**Comments:** 3.11.6: South-east of Cape York Peninsula bioregion and adjacent to the Wet Tropics bioregion.  
3.11.6a: Moved to the Wet Tropics Bioregion. South-east of Cape York Peninsula bioregion and adjacent Wet Tropics bioregion.  
3.11.6b: In south-east of bioregion.  
3.11.6c: Altanmoui Range and south of Lockhardt River.

**Estimated extent:**<sup>1</sup> Pre-clearing 7000 ha; Remnant 2021 6000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

### Biodiversity status notes:

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### Regional ecosystem 3.11.7

<b>Description:</b>	Eucalyptus cullenii (Cullen's ironbark) woodland to low woodland commonly with Corymbia clarksoniana (Clarkson's bloodwood). Other Eucalyptus spp. and Corymbia spp. may be present in the canopy and are occasionally subdominant. Erythrophleum chlorostachys is also common in the both the canopy and very sparse subcanopy. The very sparse shrub layer is characterised by the presence of Dolichandrone alternifolia (lemonwood) and scattered canopy species. The ground layer is sparse to mid-dense and dominated by the grasses, Heteropogon contortus (black speargrass), H. triticeus (giant speargrass) and Sarga plumosum (plume sorghum). Occurs on low hills and rises on metamorphic rocks. Not a Wetland. (BVG1M: 13a).
<b>Short description:</b>	Eucalyptus cullenii and Corymbia clarksoniana woodland on low metamorphic hills and rises
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 69, Fox & Wilson (2004); m90-11c.
<b>Subregions:</b>	1, 2, 5, (6), (7.9), (2.6), (9.3), (7), (2.4), (4), (8)
<b>Protected areas:</b>	Olkola NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Oyala Thumotang NP (CYPAL), Cape Melville NP (CYPAL), Lama Lama NP (CYPAL), Biniirr NP (CYPAL), Ngalba-bulal NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, KULLA (McIlwraith Range) RR, Olkola (Kurrumbila) RR 2, Palmer Goldfield RR, Annan River (Yuku Baja-Muliku) RR
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.11.7: Potential habitat for NCA listed species: Cycas tuckeri.
<b>Comments:</b>	3.11.7: 3.11.8 and 3.12.16b were amalgamated into this RE. Coen-Yamba Inlier and hills surrounding the Laura Basin.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 236000 ha; Remnant 2021 236000 ha
<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 3.11.8

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.11.7. *Eucalyptus cullenii* (Cullen's ironbark) dominates the sparse to mid-dense canopy (6-24m tall). *Corymbia clarksoniana* (Clarkson's ironbark) is usually present as a subdominant canopy species. Other *Eucalyptus* spp. or *Corymbia* spp. may be present in the canopy and are occasionally subdominant. *Dendrolobium umbellatum* (horse bush), *Erythrophleum chlorostachys* (Cooktown ironwood) and *Acacia disparrima* subsp. *calidestris* (black wattle) are frequent species in the very sparse to mid-dense sub-canopy layer (2-8m tall). The sparse shrub layer (0.2-3m tall) is dominated by the same species. The ground layer is sparse to dense and dominated by the grasses *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass), *Themeda triandra* (kangaroo grass) and *Sarga plumosum* (plume sorghum). Occurs on metamorphic ranges. Not a Wetland. (BVG1M: 13a).

Vegetation communities in this regional ecosystem include:

3.11.8x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.11.20. The canopy is dominated by *Dendrolobium arbuscula* (Chillagoe Pea) forming a closed forest 6 to 8 m tall with *Terminalia subacroptera*, *Croton arnhemicus* (Hard Cascarilla), *Diospyros geminata* (Scaly Ebony), *Elaeodendron melanocarpum* (Black Olive Plum), *Strychnos lucida* (Strychnine Bush) and *Wrightia pubescens* subsp. *penicillata* (Chertie) common. There are scattered or clumped emergents (making up more than 5%) of *Ficus virens* (White Fig), *Ficus obliqua* (Small-leaved Fig), *Ficus rubiginosa* forma *glabrescens* (Rusty Fig), *Gyrocarpus americanus* subsp. *Sphenopteris* (Helicopter Tree), *Bombax ceiba* (Silk Cotton Tree), *Garuga floribunda* var. *floribunda*, *Mimusops elengi* (Red Coondoo) and *Ficus drupacea* (Hairy Fig). *Dendrobium bigibbum* (Cooktown Orchid) is a common epiphyte throughout with the vines *Cayratia cardiophylla*, *Cissus adnata* and *Cissus reniformis* being common. The shrublayer is dominated by *Eugenia reinwardtiana* (Beach Cherry) with *Denhamia fasciculiflora*, *Graptophyllum excelsum* (Scarlet Fuchsia), *Gossia sankowskyorum* (Lignum), *Phyllanthus novae-hollandiae*, *Tabernaemontana orientalis* (Iodine Bush), *Turraea pubescens* (Native Witch-hazel) and *Ziziphus oenoplia* (Wine Jujube). The ground layer is mostly bare ground and litter with *Proiphys amboinensis* (Cardwell Lily), *Plumbago zeylanica* (Wild Plumbago), *Commelina ensifolia* (Wandering Jew), *Scleromitron polycladum* and occasionally *Dendrocnide moroides* (Gympy Gympy) common. Occurs on karst outcrops. Not a Wetland. (BVG1M: 7b).

3.11.8x2: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.11.21. The uneven sparse to mid-dense canopy (5-12m tall) is composed of a variety of mainly dry season deciduous species. *Cochlospermum gillivraei* (kapok), *Canarium australianum* (scrub turpentine), *Terminalia muelleri* (Mueller's damson) and *Acacia polystachya* (a wattle) frequently dominate this layer. *Eucalyptus crebra* (narrow-leaved ironbark) and *Welchiodendron longivalve* (yellow box-penda) are often present as part of the canopy or as emergents (12-15m tall). A very sparse sub-canopy layer (3-7m tall) is sometimes present. The sparse to mid-dense shrub layer (0.5-6m tall) is composed of a variety of species. Vines are frequent in both the shrub and tree layers. The ground layer is usually sparse, with grasses making up the majority of the cover. Occurs on metamorphic hillslopes. Not a Wetland. (BVG1M: 7b).

**Short description:** *Eucalyptus cullenii* +/- *Corymbia clarksoniana* woodland on metamorphic ranges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 70. Fox & Wilson (2004); w59-11c.

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.11.8: Potential habitat for NCA listed species: *Habenaria rumphii*.

**Comments:** 3.11.8x1: Occurs on limestone karst, with plants growing between or around exposed limestone with limited soil in between. Includes areas where bare rock is dominant with scattered trees. Areas on metamorphic hills and slopes may have a different suite of species. Limited extent predominantly on and adjacent to Kings Plain station in the south of the bioregion.  
3.11.8x2: Small patches scattered across the central and southern bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:** 3.11.8x1 - A rare ecosystem threatened by mining

## Regional ecosystem 3.11.9

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.11.11. *Eucalyptus cullenii* (Cullen's ironbark) dominates the sparse canopy (9-18m tall). *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is usually present as a subdominant species. Other *Eucalyptus* spp. and *Erythrophleum chlorostachys* (Cooktown ironwood) may be present in the canopy and are occasionally subdominant. *Planchonia careya* (cocky apple), *Eucalyptus cullenii*, *C. stockeri* subsp. *peninsularis*, *Acacia rothii* (Roth's wattle) and *Melaleuca viridiflora* (broad-leaved teatree) are frequent species in the very sparse to sparse sub-canopy layer (2-13m tall). The shrub layer (0.3-2m tall) is very sparse to mid-dense and dominated by a variety of species. The grasses *Themeda triandra* (kangaroo grass), *Sarga plumosum* (plume sorghum), *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass) and *Schizachyrium* spp. (fire grass) dominate the very sparse to mid-dense, ground layer. Occurs mainly on metamorphic hills. Not a Wetland. (BVG1M: 13a).

**Short description:** *Eucalyptus cullenii* and *Corymbia stockeri* subsp. *peninsularis* woodland on metamorphic hills

**Supplementary descriptions:** Neldner and Clarkson (in prep), 71

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.11.9: Habitat for the near threatened species *Acacia armitii*.

**Comments:** 3.11.9: Also Einasleigh Uplands bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.11.10

**Description:** Woodland of *Corymbia hylandii* (Hylands bloodwood), usually with *Eucalyptus tetrodonta* (Darwin stringybark). Occasional species include *E. cullenii* (Cullen's ironbark ironbark) and *E. platyphylla* (poplar gum). A sparse sub-canopy of canopy species +/- *Melaleuca stenostachya* (fibre-barked tea-tree) can occur. The shrub layer is very sparse to sparse and usually dominated by canopy species. The sparse grassy groundlayer is usually dominated by *Themeda triandra* (Kangaroo grass). Occurs on metamorphic hills and headlands. Not a Wetland. (BVG1M: 14d).

Vegetation communities in this regional ecosystem include:

3.11.10a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.11. *Corymbia stockeri* (gum-topped bloodwood) and *Eucalyptus tetrodonta* (Darwin stringybark) are the dominant species in the sparse canopy (10-15m tall). *Eucalyptus chlorophylla* (shiny-leaved box) and *E. cullenii* (Cullen's ironbark) are frequently present as subdominant trees. The very sparse to sparse shrub layer (0.1-3m tall) is composed of a variety of species that may dominate at different sites, *Corymbia stockeri*, *E. tetrodonta*, *Melaleuca stenostachya* (fibre-barked teatree) and *Petalostigma banksii* (smooth-leaved quinine) the most frequent dominants. The ground layer is sparse to mid-dense, and dominated by the grasses, *Triodia microstachya* (spinifex), *Eriachne* spp. (wanderrie grass), *Aristida* spp. (three-awned speargrass), *Schizachyrium* spp. (fire grass), *Heteropogon triticeus* (giant spear grass) and *Digitaria* spp. Occurs on metamorphic hills. Not a Wetland. (BVG1M: 14d).

3.11.10b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.10.6x4. *Corymbia stockeri* and *Eucalyptus crebra* form an even but discontinuous canopy (6-8m tall). *E. brassiana* (Cape York redgum) is usually present but generally occurs at low densities. *Eucalyptus mediocris* (mahogany) occurred in the canopy at Cape Bedford. There are two very sparse layers of shrubs and young trees; one 2-4m tall dominated by young *Eucalyptus* spp. And the other 0.5-1m tall dominated by *Acacia calyculata*, *Dodonaea lanceolata* var. *subsessilifolia*, *Erythrophleum chlorostachys* (Cooktown ironwood), *Jacksonia thesioides* and *Xanthorrhoea johnsonii* (grass-tree). The ground layer is very sparse and dominated by graminoids. Most of the soil surface is covered with leaf litter or exposed rock. RE is defunct. Not a Wetland. (BVG1M: 14d).

**Short description:** *Corymbia hylandii* +/- *Eucalyptus tetrodonta* woodland on metamorphic hills

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.11.10: Includes areas previously mapped as 3.11.10a. Central Peninsula and south from Cape Melville. 3.11.10a: Central Peninsula.

3.11.10b: Now mapped as 3.10.6x4. The height of the canopy is frequently determined by exposure to prevailing south-easterly winds. In very rocky areas, a dwarf open heath of *Allocasuarina littoralis*, *Grevillea pteridifolia*, *Hibbertia oblongata* and *Jacksonia thesioides* forms, while in deeper gullies, *Eucalyptus brassiana* and *Acacia leptocarpa* become prominent. In sheltered, more mesic positions, particularly gullies, *Erythrophleum chlorostachys* forms a prominent component of the canopy. *Lophostemon suaveolens* and *Allocasuarina littoralis* may also be present in the canopy, and *Corymbia tessellaris* is sometimes present as an emergent tree (10m tall). A denser shrub layer (2-4m tall, 20% PFC) is frequently present. *Buchanania arborescens*, *Canarium australianum* and *Schefflera actinophylla* occur in some gullies. Occurs on Melville Range and coastal headlands in south of bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.11.11

**Description:** *Eucalyptus tetrodonta* (Darwin stringybark) woodland to open forest usually with *Corymbia stockeri* (gum-topped bloodwood). *Eucalyptus cullenii* (Cullen's ironbark) can also be codominant, particularly on the upper slopes of rises. *Erythrophleum chlorostachys* (Cooktown iron wood) and *Corymbia nesophila* (Melville Island bloodwood) also commonly occur. A range of other *Eucalyptus* spp. and *Corymbia* spp. can also be present in the canopy. The very sparse to sparse sub-canopy layer usually contains canopy species with *Melaleuca stenostachya* (fibre-barked teatree) and *M. viridiflora* (broad-leaved teatree) occasionally present. A sparse

shrub layer usually contains *E. tetradonta*, *Erythrophleum chlorostachys* and *Petalostigma banksii* (smooth-leaved quinine). The ground layer is sparse to mid-dense and dominated by *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum) and *Heteropogon triticeus* (giant speargrass). Occurs on hills and erosional surfaces. Not a Wetland. (BVG1M: 14d).

Vegetation communities in this regional ecosystem include:

3.11.11x1a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.11. *Eucalyptus tetradonta* (Darwin stringybark) predominates forming a sparse to mid-dense canopy (14-26m tall). *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant in the canopy. *C. tessellaris* (Moreton Bay ash) and *Lophostemon suaveolens* (swamp mahogany) are also frequently present in the canopy. The very sparse to sparse sub-canopy tree layer (3-15m tall) is dominated by *Acacia flavescens* (powderpuff wattle), *Parinari nonda* (nonda plum), *Grevillea parallela* (silver oak), *Erythrophleum chlorostachys* (Cooktown ironwood) and *Melaleuca viridiflora* (broad-leaved teatree). *Livistona muelleri* (dwarf fan palm) is common in the sub-canopy tree layer and dominated this layer at one site. The very sparse shrub layer (0.5-2m tall) is composed of a variety of young trees and shrubby regrowth. The ground layer is usually sparse to mid-dense and frequently dominated by *Heteropogon triticeus* (giant speargrass), *Mnesithea rottboellioides* (northern cane grass), *Dianella* spp., *Imperata cylindrica* (blady grass) and *Sarga plumosum* (plume sorghum). Occurs on metamorphic ranges. Not a Wetland. (BVG1M: 14d).

3.11.11x1b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.11. *Eucalyptus megasepala* predominates forming a sparse canopy (12-28m tall). *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) is also frequently present in both the canopy and the very sparse to sparse sub-canopy tree layer (3-14m tall). *Grevillea glauca* (bushman's clothes peg), *Erythroxylum ellipticum* (matchwood), *Alphitonia pomaderroides* (soapwood), *Eucalyptus megasepala* and *Melaleuca nervosa* (woodland paperbark) are other common sub-canopy trees. A very sparse to sparse shrub layer (0.3-2.5m tall) is composed of a variety of young trees and shrubby regrowth. The ground layer is usually very sparse to mid-dense and dominated by grasses, usually *Schizachyrium* spp. (firegrass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panic), *Aristida* spp. (three-awn speargrass), *Alloteropsis semialata* (cockatoo grass) and *Thaumatococcus* spp. Occurs on metamorphic hills. Not a Wetland. (BVG1M: 14d).

3.11.11x1c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.11. *Eucalyptus tetradonta* (Darwin stringybark) and *Corymbia nesophila* (Melville Island bloodwood) dominate the very sparse to mid-dense canopy (10-28m tall). In most situations both species are present and codominant, however, *C. nesophila* may be dominant or occasionally absent. *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is sometimes present in the canopy. A very sparse to sparse sub-canopy tree layer (8-20m tall) is present with *Erythrophleum chlorostachys* (Cooktown ironwood), just below the canopy, *Grevillea glauca* (bushman's clothes peg), *Parinari nonda* (nonda plum) and *Acacia rothii* (Roth's wattle) the most frequent species. A very sparse low tree layer (2-8m tall) is sometimes present. The shrub layer (0.3-2.5m tall) is dominated mainly by species that also occur in the tree layers and is sparse to mid-dense. The shrub layer of recently burnt areas is usually mid-dense. The ground layer is sparse to mid-dense and dominated by *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Thaumatococcus* spp. and *Eriachne* spp. (wanderrie grass). Occurs on metamorphic undulating rises and low hills. Not a Wetland. (BVG1M: 14d).

3.11.11x1d: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.11. *Eucalyptus tetradonta* (Darwin stringybark) predominates, forming a distinct but discontinuous sparse canopy (17-26m tall). *Corymbia nesophila* (Melville Island bloodwood) and *C. clarksoniana* (Clarkson's bloodwood) may be subdominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) may occur just below the canopy, occasionally forming a mid-dense layer. sub-canopy trees (4-15m tall) are sometimes present. A sparse low shrub layer (0.5-2m tall) composed of young trees and shrubby regrowth is often present. The ground layer can be very sparse to mid-dense and is dominated by grasses. The primary species in this layer are *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panics), *Alloteropsis semialata* (cockatoo grass) and *Thaumatococcus* spp. Occurs on metamorphic rises and low hills. Not a Wetland. (BVG1M: 14d).

3.11.11x1e: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.11. *Eucalyptus tetradonta* (Darwin stringybark) predominates forming a distinct but discontinuous sparse to mid-dense canopy (12-20m tall). *Corymbia nesophila* (Melville Island bloodwood) occurs as a subdominant canopy species. *Melaleuca* spp. (teatree), *Acacia* spp. (wattle) and *Lophostemon suaveolens* (swamp mahogany) form a sparse sub-canopy layer (6-12m tall). A sparse low shrub layer (0.5-3m tall) dominated by *Canarium australicum* (scrub turpentine), *Erythrophleum chlorostachys* (Cooktown ironwood) and *Eucalyptus* spp. and *Corymbia* spp. are usually present. The ground layer is usually sparse and dominated by the grasses *Imperata cylindrica* (blady grass), *Mnesithea rottboellioides* (northern cane grass) and *Alloteropsis semialata* (cockatoo grass) and the mat rush, *Lomandra* spp. Occurs on metamorphic low hills. Not a Wetland. (BVG1M: 14d).

3.11.11x2: *Eucalyptus similis* (yellow jacket) and *Corymbia nesophila* (Melville Island bloodwood) woodland. Scattered trees of *E. tetradonta* (Darwin stringybark) and *C. stockeri* subsp. *stockeri* (gum-topped bloodwood)



may be present in the canopy. The very sparse to sparse sub-canopy layer is dominated by *Eucalyptus* spp. and *Corymbia* spp. A sparse shrub layer is usually present where species also occurring in the canopy layers are dominant. The ground layer is sparse to mid-dense and dominated by grasses. Occurs on lower slopes and pediments of central metamorphic ranges. Not a Wetland. (BVG1M: 14c).

3.11.11x3: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.11. *Eucalyptus tetrodonta* (Darwin stringybark) dominates the sparse canopy (12-22m tall). *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is always present and *Erythrophleum chlorostachys* (Cooktown ironwood) is often present as subdominant canopy trees. *Corymbia nesophila* (Melville Island bloodwood) is occasionally present and may be dominant in places. *Adenanthera abrosperma* (bead tree), *E. chlorostachys* and *Grevillea glauca* (bushman's clothes peg) are the most frequently encountered trees in the very sparse sub-canopy layer (4-12m tall). A very sparse to sparse shrub layer (0.2-2m tall) is present. *Xanthorrhoea johnsonii* (grass tree), or less frequently, *Bossiaea armitii* dominates this layer. *Corymbia stockeri* subsp. *peninsularis*, *Eucalyptus tetrodonta*, *Planchonia careya* (cocky apple) and *Acacia rothii* (Roth's wattle) are other commonly encountered shrubs. The ground layer is sparse to mid-dense and dominated by grasses such as *Thaumastochloa* spp., *Heteropogon triticeus* (giant speargrass) and *Schizachyrium fragile* (fire grass) and the sedge *Schoenus sparteus*. Occurs on metamorphic hills. Not a Wetland. (BVG1M: 14d).

<b>Short description:</b>	<i>Eucalyptus tetrodonta</i> +/- <i>Corymbia stockeri</i> woodland on hills and erosional surfaces
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 77-11, Fox & Wilson (2004); m79-11c, w60-11c.
<b>Subregions:</b>	1, 2, (5), (6), (4), (7), (8), (2.6), (2.4), (9.3)
<b>Protected areas:</b>	Olkola NP (CYPAL), Cape Melville NP (CYPAL), Oyala Thumotang NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Alwal NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Lama Lama NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Biniirr NP (CYPAL), KULLA (McIlwraith Range) RR, Olkola (Kurrumbila) RR 2
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.11.11: Habitat for the near threatened species <i>Acacia ommatosperma</i> and vulnerable species <i>Stemona angusta</i> . 3.11.11x2: Northern outlying populations of <i>Eucalyptus similis</i> , which is extensive in the Desert Uplands bioregion.
<b>Comments:</b>	3.11.11: RE's 3.11.9, 3.11.10a, 3.11.1x1 and 3.11.11x3 were amalgamated into this RE. Widespread on Coen-Yamba Inlier. 3.11.11x1a: Ranges near Lockhart River. 3.11.11x1b: Coleman Plateau. 3.11.11x1d: South of the bioregion. 3.11.11x1e: West of Lockhart River. 3.11.11x2: Previously mapped as 3.10.8. Restricted to low hills north west of Musgrave Roadhouse in the central peninsula. 3.11.11x3: Coen Inlier.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 378000 ha; Remnant 2021 378000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

### Regional ecosystem 3.11.12

**Description:** Eucalyptus leptophleba (Molloy red box) woodland usually with E. platyphylla (poplar gum). Scattered Corymbia tessellaris (Moreton Bay ash) are also often present in the canopy. The very sparse sub-canopy Melaleuca spp. and Eucalyptus spp. The very sparse shrub layer with canopy species and Planchonia careya (cocky apple) frequently present. The dense grassy ground layer can include dominants of Heteropogon contortus (black speargrass), H. triticeus (giant speargrass), Mnesithea rottboellioides (northern canegrass) and Themeda triandra (kangaroo grass). Occurs on rolling metamorphic hills. Not a Wetland. (BVG1M: 9b).

**Short description:** Eucalyptus leptophleba +/- E. platyphylla woodland on rolling metamorphic hills

**Supplementary descriptions:** Neldner and Clarkson (in prep), 81

**Subregions:** 2, (5), (7.9)

**Protected areas:** Annan River (Yuku Baja-Muliku) NP, Annan River (Yuku Baja-Muliku) RR, Ngalba-bulal NP (CYPAL), Endeavour River NP, Keatings Lagoon CP, Mount Cook NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.11.12: Potential habitat for NCA listed species: Acacia guymeri.

**Comments:** 3.11.12: South-east of bioregion. Alien forbs such as Crotalaria goreensis\* (Gamba pea) and Stachytarpheta jamaicensis\* (snakeweed), and grasses such as Themeda quadrivalvis\* (grader grass) occur at high densities this community.

**Estimated extent:**<sup>1</sup> Pre-clearing 24000 ha; Remnant 2021 23000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.11.13

**Description:** Corymbia nesophila (Melville Island bloodwood) woodland to open forest commonly with Eucalyptus platyphylla (poplar gum) and E. brassiana (Cape York red gum). A number of other Eucalyptus spp. or Corymbia spp. such as C. tessellaris (Moreton Bay ash), E. cullenii (Cullen's ironbark) and E. leptophleba (Molloy box) may form minor components of the canopy. The very sparse to sparse sub-canopy contains canopy species and commonly Melaleuca viridiflora (broad-leaved teatree) and Grevillea glauca (Bushman's clothespeg). The very sparse shrub layer commonly contains C. nesophila Persoonia falcata (geebung), Coelospermum reticulatum, Acacia flavescens (powder puff wattle) and Erythrophleum chlorostachys (Cooktown ironwood). Themeda triandra (kangaroo grass), Mnesithea rottboellioides (northern cane grass) and Heteropogon triticeus (giant spear grass) are frequent dominant species in the sparse to mid-dense ground layer. Mainly occurs on metamorphic hills and ranges. Not a Wetland. (BVG1M: 14c).

**Short description:** Corymbia nesophila +/- E. brassiana woodland on metamorphic hills and ranges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 82b

**Subregions:** 2, 9.3, 5, (1), (7.9)

**Protected areas:** Biniirr NP (CYPAL), Annan River (Yuku Baja-Muliku) NP, Ngalba-bulal NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Endeavour River NP, Cape Melville NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Keatings Lagoon CP, Mount Cook NP

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.11.13: In the south-east.

**Estimated extent:**<sup>1</sup> Pre-clearing 62000 ha; Remnant 2021 62000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.11.14

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 9.11.3c. *Eucalyptus staigeriana* (lemon-scented ironbark) dominates the sparse canopy (8-12m tall). *Corymbia ellipsoidea* is frequently a subdominant canopy tree. Occasional *E. tetradonta* (Darwin stringybark), *E. crebra* (narrow-leaved ironbark), *C. confertiflora* (broad-leaved Moreton Bay ash) and *Erythrophleum chlorostachys* (Cooktown ironwood) are present in the canopy. The shrub layer (0.5m tall) is very sparse, with *Coelospermum reticulatum* (medicine bush), *Erythrophleum chlorostachys* and *Eucalyptus* spp. The most frequent shrubs. The ground layer is sparse, and dominated by *Heteropogon triticeus* (giant speargrass) and *Themeda triandra* (kangaroo grass), with *Schizachyrium* spp. A subdominant grass. Occurs on metamorphic ranges. Not a Wetland. (BVG1M: 13a).

**Short description:** *Eucalyptus staigeriana* woodland on metamorphic ranges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 90

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.11.14: *Eucalyptus staigeriana* is a relatively restricted species.

**Comments:** 3.11.14: This RE doesn't occur in Cape York Peninsula bioregion. It occurs in Einasleigh Uplands bioregion as RE 9.11.3c.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.11.15

**Description:** *Eucalyptus leptophleba* (Molloy red box) open woodland to woodland usually with *Corymbia dallachiana* (Dallachy's gum) and/or *C. clarksoniana* (Clarkson's bloodwood) with scattered *E. cullenii* (Cullen's ironbark) and *Erythrophleum chlorostachys* (Cooktown ironwood) occasionally present. A very sparse sub-canopy tree layer is usually present with scattered canopy species. *Dendrolobium umbellatum*, *Planchonia careya* (cocky apple), *Antidesma ghaesembilla* (black currant) *Acacia flavescens* and *Grewia savannicola* (dog's balls) can all be present in a very sparse shrub layer. The ground layer is mid-dense to dense and dominated by a variety of grasses including *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum) and *Themeda triandra* (kangaroo grass). Occurs on metamorphic hills and ranges. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

3.11.15a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.15. *Eucalyptus leptophleba* (Molloy red box) open woodland to woodland usually with *Corymbia dallachiana* (Dallachy's gum) and/or *C. clarksoniana* (Clarkson's bloodwood) with scattered *E. cullenii* (Cullen's ironbark) and *Erythrophleum chlorostachys* (Cooktown ironwood) occasionally present. A very sparse sub-canopy tree layer is usually present with scattered canopy species. *Dendrolobium umbellatum*, *Planchonia careya* (cocky apple), *Antidesma ghaesembilla* (black currant) *Acacia flavescens* and *Grewia savannicola* (dog's balls) can all be present in a very sparse shrub layer. The ground layer is mid-dense to dense and dominated by a variety of grasses including *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum) and *Themeda triandra* (kangaroo grass). Occurs on metamorphic hills and ranges. Not a Wetland. (BVG1M: 9b).

3.11.15b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.15. *Corymbia clarksoniana* (Clarkson's bloodwood) dominates the sparse canopy (8-25m tall). *Erythrophleum chlorostachys* (Cooktown ironwood) is a frequent subdominant tree. *Eucalyptus tetrodonta* (Darwin stringybark), *E. leptophleba* (Molloy red box) and *E. chlorophylla* (shiny-leaved box) are also sometimes present as subdominant trees. The sub-canopy (6-10m tall) is dominated by *Melaleuca viridiflora* (broad-leaved teatree) and often includes *M. nervosa* (paperbark) and *Grevillea glauca* (bushman's clothes peg). The very sparse to sparse shrub layer (0.3-3m tall) is dominated by *M. viridiflora*, *M. nervosa*, *C. clarksoniana*, *Acacia leptocarpa* (a wattle) and *Alphitonia pomaderroides* (soapwood). The ground layer is sparse to mid-dense. *Sarga plumosum* (plume sorghum), *Themeda triandra* (kangaroo grass), *Eriachne trisetata* (wanderrie grass) and *Heteropogon triticeus* (giant speargrass) are the primary grasses. RE is defunct. Not a Wetland. (BVG1M: 9b).

**Short description:** *Eucalyptus leptophleba* +/- *Corymbia dallachiana* open woodland on metamorphic hills

### Supplementary descriptions:

**Subregions:** 1, (7), (6)

**Protected areas:** Oyala Thumotang NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), KULLA (McIlwraith Range) RR

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:** 3.11.15: Potential habitat for NCA listed species: *Cycas tuckeri*.

**Comments:** 3.11.15: Coen Inlier.

3.11.15a: *Eucalyptus chlorophylla* (shiny-leaved box) is sometimes present with *E. leptophleba* and occasionally replaces it as the dominant canopy tree. Coen Inlier.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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### Regional ecosystem 3.11.16

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 9.11.25. Eucalyptus tardecidens low woodland on metamorphic plateaus. RE defunct. Not a Wetland. (BVG1M: 19d).

**Short description:** Eucalyptus tardecidens low woodland on metamorphic plateaus

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.11.16: This RE doesn't occur in Cape York Bioregion. It only occurs in the Einasleigh Uplands bioregion as RE 9.11.25.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.11.17

**Description:** *Eucalyptus chlorophylla* (shiny-leaved box) woodland to low open woodland commonly with *Melaleuca viridiflora* (broad-leaved teatree), *Corymbia clarksoniana* (Clarkson's bloodwood) and *Erythrophleum chlorostachys* (Cooktown ironwood). *M. viridiflora* and *M. foliolosa* (scale-leaved teatree) occasionally occur as scattered sub-canopy trees. Scattered shrubs of canopy species and *Acacia* spp. are frequently present. The sparse ground layer is usually dominated by *Themeda triandra* (kangaroo grass), *Heteropogon triticeus* (giant speargrass) and *H. contortus* (black speargrass). Occurs on metamorphic hillslopes and low rises. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

3.11.17a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.17. *Eucalyptus chlorophylla* (shiny-leaved box) trees dominate the very sparse to sparse canopy (6-10m tall). *Melaleuca viridiflora* (broad-leaved teatree) and *M. foliolosa* (scale-leaved teatree) frequently occur as scattered sub-canopy trees (4-8m tall). Scattered shrubs (0.5-2m tall) are frequently present. The sparse ground layer is usually dominated by the perennial grasses *Themeda triandra* (kangaroo grass), *Heteropogon triticeus* (giant speargrass) and *H. contortus* (black speargrass). Occurs on metamorphic hillslopes. Not a Wetland. (BVG1M: 9b).

3.11.17b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.17. *Eucalyptus chlorophylla* (shiny-leaved box) dominates the very sparse to sparse canopy (8-25m tall). Other *Eucalyptus* spp. are occasionally present in the canopy. Scattered *Hakea persiehana* (bootlace oak), *Melaleuca viridiflora* (broad-leaved teatree) and *Erythrophleum chlorostachys* (Cooktown ironwood) are sometimes present as sub-canopy trees (4-12m tall). A shrub layer is rarely formed but scattered *Dolichandrone alternifolia*, *Grewia savannicola* (dog's balls) and *Melaleuca viridiflora* shrubs 0.5-2m tall may be present. The ground layer is sparse to dense and dominated by the grasses *Heteropogon contortus* (black speargrass), *Sarga plumosum* (plume sorghum), *Themeda arguens*, *T. triandra* (kangaroo grass) and *Dichanthium sericeum* subsp. *sericeum* (Queensland bluegrass). Occurs on remnant metamorphic low rises. Not a Wetland. (BVG1M: 9b).

3.11.17x1: [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.11.18. *Melaleuca viridiflora* (broad-leaved teatree) dominates the very sparse canopy (5-12m tall). Scattered emergent trees of *Corymbia clarksoniana* (Clarkson's bloodwood) (7-14m tall) are frequently present. Other *Corymbia* spp. and *Eucalyptus* spp. occur occasionally as emergent trees, with *C. polycarpa* (long-fruited bloodwood) replacing *C. clarksoniana* on the Mitchell fan. A sparse to very sparse low tree layer (2-8m tall) dominated by *Petalostigma banksii* (smooth-leaved quinine) is usually present. A very sparse shrub layer (usually <0.5m) dominated by *M. viridiflora* and *P. banksii* juveniles is present at most sites. The ground layer is sparse to mid-dense and dominated by grasses. *Schizachyrium fragile* (firegrass), *Sarga plumosum* (plume sorghum), *Eriachne* spp. (wanderrie grasses) and *Eremochloa bimaculata* (poverty grass) are the common dominants in this layer. Occurs on metamorphic hillslopes and rises. Not a Wetland. (BVG1M: 21a).

**Short description:** *Eucalyptus chlorophylla* +/- *Melaleuca viridiflora* woodland to open woodland on metamorphic slopes

**Supplementary descriptions:**

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

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Cape Melville NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Alwal NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Olkola NP (CYPAL), KULLA (McIlwraith Range) RR, Biniirr NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.11.17: South of bioregion.

3.11.17a: South of bioregion.

**Estimated extent:**<sup>1</sup> Pre-clearing 20000 ha; Remnant 2021 20000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.11.18

**Description:** *Melaleuca stenostachya* (fibre-barked teatree) and/or *Melaleuca viridiflora* (broad-leaved teatree) low open woodland to low woodland occasionally with *Corymbia* spp. *M. citrolens* (scrub teatree) may also dominate in some areas. Scattered emergent *Corymbia* spp. or *Eucalyptus* spp. occasionally occur. A very sparse sub-canopy dominated by *Petalostigma banksii* (smooth-leaved quinine) may be present. A very sparse shrub layer of may occur with scattered canopy and heath species. The sparse grassy ground layers often dominated by *Schizachyrium* spp., *Sarga plumosum* (sorghum) or *Themeda triandra* (kangaroo grass). Occurs on footslopes of metamorphic hills & ranges. Not a Wetland. (BVG1M: 21b).

Vegetation communities in this regional ecosystem include:

3.11.18a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.18. *Melaleuca stenostachya* (fibre-barked teatree) trees dominate the sparse canopy (7-10m tall). *Melaleuca viridiflora* (broad-leaved teatree) is a frequent canopy tree and may be dominant in some areas. *M. citrolens* (scrub teatree) may also dominate in some areas. Scattered emergent *Corymbia stockeri* (gum-topped bloodwood) trees (12-13m tall) may be present. A sparse shrub layer (0.5-1.5m tall) may be present. The ground layer is dominated by the graminoids *Schoenus sparteus*, *Arundinella setosa* (reed grass) and *Eriachne pallescens* (wanderrie grass). Occurs on footslopes of metamorphic hills. Not a Wetland. (BVG1M: 21b).

3.11.18b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.18. *Melaleuca viridiflora* (broad-leaved paperbark), together with *Neofabricia myrtifolia* (yellow teatree), *Allocasuarina littoralis* (black sheoak), *Asteromyrtus brassii* and sometimes *Acacia brassii* (Brass's wattle) dominate the sparse canopy (4-12m tall). *Corymbia nesophila* (Melville Island bloodwood) and less frequently *Eucalyptus tetradonta* (Darwin stringybark) are present as emergent trees (9-16m tall). The same species dominate the sparse low tree layer (2-5m tall). A sparse shrub layer (0.5-3m tall) is present, with *Acacia calyculata*, *Persoonia falcata* (geebung), *Hibbertia banksii* forma *banksii*, *Melaleuca viridiflora*, *Asteromyrtus lysicephala* (back to front bush) and *Choriceras tricornis* (Cape Choriceras) occurring at the highest densities. The ground layer is sparse, and frequently dominated by *Xanthorrhoea johnsonii* (grass tree). Commonly encountered graminoids include *Eriachne* spp. (wanderrie grasses), *Schoenus sparteus* and *Cleistochloa* spp. Occurs on metamorphic ranges. Not a Wetland. (BVG1M: 28c).

3.11.18c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.46. *Melaleuca stenostachya* (fibre-barked teatree) trees dominate the sparse canopy (7-10m tall). *Melaleuca viridiflora* (broad-leaved teatree) is a frequent canopy tree. Scattered emergent *Corymbia stockeri* (gum-topped bloodwood) trees (12-13m tall) are often present. A sparse shrub layer (0.5-1.5m tall) may be present. The ground layer is dominated by the graminoids *Schoenus sparteus*, *Arundinella setosa* (reed grass) and *Eriachne pallescens* (wanderrie grass). Occurs on low hills. Not a Wetland. (BVG1M: 21b).

3.11.18x1: *Melaleuca viridiflora* (broad-leaved teatree) low open woodland to low woodland occasionally with *Eucalyptus platyphylla*. Emergent *Eucalyptus platyphylla* or *Corymbia dallachiana* may occasionally occur. A sub-canopy of *Melaleuca viridiflora* (broad-leaved teatree) may be present. A very sparse shrub layer of *Grevillea parallela*, *Melaleuca viridiflora* and *Santalum lanceolatum* may occur. The dense grassy ground layers is often dominated by *Themeda triandra* (kangaroo grass). Occurs on footslopes of metamorphic ranges and undulating rises. Not a Wetland. (BVG1M: 28c).

**Short description:** *Melaleuca stenostachya* and / or *M. viridiflora* +/- *M. citrolens* low open woodland on metamorphic footslopes

**Supplementary descriptions:**

**Subregions:** 1, 2, 5, (9.3), (8), (6), (4), (7), (2.4)

**Protected areas:** Cape Melville NP (CYPAL), Olkola NP (CYPAL), Oyala Thumotang NP (CYPAL), Juunju Daarrba Nhirrpan NP (CYPAL), Alwal NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Olkola (Kurrumbila) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.11.18: South-east of the bioregion.  
3.11.18a: South-east of the bioregion and Lockhart River area.  
3.11.18b: Lockhart River area.  
3.11.18c: South-east.  
3.11.18x1: South of bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.11.19

**Description:** Themeda spp. and/or Heteropogon contortus (black spear grass) closed tussock grassland with occasional scattered emergent shrubs or dwarf open heathland of Asteromyrtus lysicephala (back to front bush), Grevillea pteridifolia (toothbrush grevillea) and Neofabricia myrtifolia (yellow teatree). These communities are often very wind-sheared. Occurs on exposed plateaus and headlands. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.11.19a: Themeda triandra (kangaroo grass) and/or T. arguens and/or Heteropogon contortus (black spear grass) closed tussock grassland which varies in height depending on exposure to the prevailing winds. Heteropogon contortus (black spear grass), Cassytha filiformis and Zornia muriculata are frequently present, but contribute only a small proportion of the biomass. Scattered shrubs may be present, but are generally windsheared and do not emerge much above the ground layer. Restricted to rocky headlands and islands. Not a Wetland. (BVG1M: 29a).

3.11.19b: Asteromyrtus lysicephala (back to front bush), Neofabricia myrtifolia (yellow teatree), Grevillea pteridifolia (golden Grevillea) and Melaleuca viridiflora (broad-leaved teatree) dwarf open heath, with Styphelia ruscifolia locally dominant. Although in many areas, the canopy has a PFC of greater than 70%, the large amount of outcropping rock reduces the overall PFC to about 50%. The ground layer is very sparse and dominated by graminoids. Schoenus sparteus is the most frequent graminoid. Occurs on exposed plateaus and headlands. Not a Wetland. (BVG1M: 29a).

**Short description:** Themeda triandra closed tussock grassland or Asteromyrtus lysicephala, Neofabricia myrtifolia, Grevillea pteridifolia dwarf open heathlands on headlands and islands

**Supplementary descriptions:**

**Subregions:** 2, (7.9)

**Protected areas:** Cape Melville NP (CYPAL), Annan River (Yuku Baja-Muliku) RR, Annan River (Yuku Baja-Muliku) NP, Archer Point CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.11.19: Headlands on the east coast of the south east of the bioregion.  
3.11.19b: The plants making up the sparse to mid-dense, even canopy are severely windsheared. In sheltered positions, (e.g. between rocks), the shrubs may reach 1m in height. A variety of species make up the canopy and the dominance may vary with locality. This vegetation community may also occur on sandstone lithologies on exposed headlands & plateaus (3.10.19). Headlands on the east coast of the south east of the bioregion.

**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 3.11.20

**Description:** Deciduous vine thicket dominated by *Croton arnhemicus* (hard cascarilla), *Diospyros geminata* (scaly ebony), *Dendrolobium arbuscula* (chillagoe pea) and *Elaeodendron melanocarpum* (black olive plum) with *Terminalia subacroptera*, *Mimusops elengi* and *Dinosperma erythrococtum* common. There are scattered or clumped emergents of *Ficus virens* var. *virens* (white fig), *Ficus obliqua* (small-leaved fig), *Ficus rubiginosa* forma *glabrescens* (rusty fig), *Gyrocarpus americanus* subsp. *sphenopterus* (helicopter tree), *Bombax ceiba* (silk cotton tree), *Garuga floribunda* var. *floribunda*, *Mimusops elengi* (red coondoo) and *Ficus drupacea* (hairy fig). *Dendrobium bigibbum* (Cooktown orchid) is a common epiphyte throughout with the vines *Cayratia cardiophylla*, *Cissus adnata* and *Cissus reniformis* being common. The very sparse to mid-dense shrublayer is dominated by *Eugenia reinwardtiana* (beach cherry) with *Denhamia fasciculiflora*, *Graptophyllum excelsum* (scarlet Fuchsia), *Gossia sankowskyorum* (lignum), *Phyllanthus novae-hollandiae*, *Tabernaemontana orientalis* (iodine bush), *Turraea pubescens* (native witch-hazel) *Drynaria* spp. and *Ziziphus oenopolia* (wine jujube). The ground layer is mostly bare ground and litter with *Proiphys amboinensis* (Cardwell lily), *Plumbago zeylanica* (wild Plumbago), *Commelina ensifolia* (wandering Jew), *Scleromitron polycladum* and occasionally *Dendrocnide moroides* (*Gympi Gympi*) common. Occurs on karst outcrops. Not a Wetland. (BVG1M: 7b).

**Short description:** Deciduous vine thicket on karst outcrops

**Supplementary descriptions:** Neldner and Clarkson (in prep), 126b.

**Subregions:** 2

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 3.11.20: Potential habitat for NCA listed species: *Dendrobium bigibbum*, *Hardenbergia* sp. (Mt Mulligan J.R.Clarkson 5775).

**Comments:** 3.11.20: Occurs on limestone karst, with plants growing between or around exposed limestone with limited soil in between. Includes areas where bare rock is dominant with scattered trees. Areas on metamorphic hills and slopes may have a different suite of species. Limited extent predominantly on and adjacent to Kings Plain station in the south of the bioregion.

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

**VM class:** Of concern

**Biodiversity status:** Endangered

**Biodiversity status notes:** A rare ecosystem threatened by mining

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### Regional ecosystem 3.11.21

**Description:** Deciduous vine thicket often dominated by *Euroschinus falcatus* (pink poplar), and *Dinosperma erythroccum* (tingletongue), *Chionanthus ramiflorus* (native olive) and *Psydrax odorata* (shiny-leaved Canthium). These species can also occur as emergents along with *Acacia disparrima* and *A. polystachya*. The sparse shrublayer contains a range of vine thicket species. Occurs on metamorphic hillslopes. Occurs on metamorphic hillslopes. Not a Wetland. (BVG1M: 7b).

**Short description:** Deciduous vine thicket on metamorphic slopes

**Supplementary descriptions:** Neldner and Clarkson (in prep), 126-11, Stanton & Fell (2005) 37

**Subregions:** 1, 2, (6)

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Cape Melville NP (CYPAL), Oyala Thumotang NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.11.21: Potential habitat for NCA listed species: *Dockrillia wassellii*.

**Comments:** 3.11.21: Similar vine thickets that exist specifically on limestone karsts are in RE 3.11.20. Small patches scattered across the central and southern bioregion.

**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 3.12.1

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. Semi-deciduous mesophyll to notophyll vine forest commonly including *Aleurites moluccanus* (candlenut), *Argyrodendron polyandrum* (brown tulip oak), *Alstonia scholaris* (milky pine), *Garuga floribunda* var. *floribunda*, *Bombax ceiba* and *Canarium australianum* (scrub turpentine). There is a sparse to mid-dense sub-canopy tree layer and a very sparse shrub/low tree layer usually present. Occurs on granite slopes. Not a Wetland. (BVG1M: 2b).

Vegetation communities in this regional ecosystem include:

3.12.1a: [RE not in use]<sup>2</sup>: This regional ecosystem is no longer mapped. The dense, uneven canopy (18-23m tall) is composed of a mixture of deciduous and evergreen trees. *Aleurites moluccanus* (candlenut), *Argyrodendron polyandrum* (brown tulip oak), *Acacia polystachya*, *Alstonia scholaris* (milky pine), *Arytera divaricata* and *Cleistanthus peninsularis* are frequent evergreen components of the canopy, occurring at high stem densities in some areas. Frequent deciduous canopy trees include *Garuga floribunda* var. *floribunda*, *Bombax ceiba*, *Canarium australianum* (scrub turpentine), *Miliusa horsfieldii* and *Brachychiton grandiflorus*. These trees may occur as emergents in places. The sparse to mid-dense sub-canopy tree layer (8-20m tall) is composed of a variety of species with *Cryptocarya triplinervis* var. *riparia*, *Diospyros fasciculosa*, *Aidia racemosa*, *Argyrodendron polyandrum*, *Arytera divaricata*, *Barringtonia calyptrata*, *Berrya javanica* and *Bosistoa medicinalis* occurring most frequently. The palm *Ptychosperma macarthurii* is sometimes present in the sub-canopy. A very sparse shrub/low tree layer (1-8m tall) is usually present with *Tritaxis australiensis*, *Alectryon tomentosus*, *Buchanania arborescens* (native mango), *Eugenia reinwardtiana*, *Ficus opposita*, *Leea novoguineensis*, *Phaleria octandra*, *Arytera bifoliolata* and *Atalaya australiana* occurring frequently. Climbers, particularly thin wiry vines such as *Parsonsia velutina*, are relatively frequent. Epiphytes are sparse. The ground layer is very sparse, and composed mainly of seedlings. Occurs on granite slopes. Not a Wetland. (BVG1M: 2b).

3.12.1b: [RE not in use]<sup>2</sup>: This vegetation community is not mapped. The dense, uneven canopy (18-23m tall) is composed of a mixture of deciduous and evergreen trees. *Aleurites moluccanus* (candlenut), *Argyrodendron polyandrum* (brown tulip oak), *Acacia polystachya*, *Alstonia scholaris* (milky pine), *Arytera divaricata* and *Cleistanthus peninsularis* are frequent evergreen components of the canopy, occurring at high stem densities in some areas. Frequent deciduous canopy trees include *Garuga floribunda* var. *floribunda*, *Bombax ceiba*, *Canarium australianum* (scrub turpentine), *Miliusa horsfieldii* and *Brachychiton grandiflorus*. These trees may occur as emergents in places. The sparse to mid-dense sub-canopy tree layer (8-20m tall) is composed of a variety of species with *Cryptocarya triplinervis* var. *riparia*, *Diospyros fasciculosa*, *Aidia racemosa*, *Argyrodendron polyandrum* (brown tulip oak), *Arytera divaricata*, *Barringtonia calyptrata*, *Berrya javanica* and *Bosistoa medicinalis* occurring most frequently. The palm *Ptychosperma macarthurii* is sometimes present in the sub-canopy. A very sparse shrub/low tree layer (1-8m tall) is usually present with *Tritaxis australiensis*, *Alectryon tomentosus*, *Buchanania arborescens* (native mango), *Eugenia reinwardtiana*, *Ficus opposita* (sandpaper fig), *Leea novoguineensis*, *Phaleria octandra*, *Arytera bifoliolata* and *Atalaya australiana* occurring frequently. Climbers, particularly thin wiry vines such as *Parsonsia velutina*, are relatively frequent. Epiphytes are sparse. The ground layer is very sparse, and composed mainly of seedlings. Occurs on metamorphic slopes. Not a Wetland. (BVG1M: 2b).

**Short description:** Semi-deciduous mesophyll and/or notophyll vine forest on granite slopes, in the central bioregion

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.12.1: The near threatened species *Brachychiton grandiflorus* occurs in this ecosystem.

**Comments:** 3.12.1: Western slopes of the McIlwraith Range.  
3.12.1a: Western slopes of the McIlwraith Range.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

## Regional ecosystem 3.12.2

**Description:** The uneven canopy (8-15m tall) is dominated mainly by evergreen species. *Buchanania arborescens* (native mango), *Dysoxylum oppositifolium* (pink mahogany), *Acacia midgleyi* or *A. disparrima* subsp. *calidestris* (brown salwood), *A. polystachya* (a wattle) and *Sterculia quadrifida* (peanut tree) are frequent dominants. The very sparse emergent layer (17-30m tall) of *Araucaria cunninghamii* (hoop pine) is a conspicuous feature of this unit. *Polyscias elegans* (celery wood) and *Polyalthia nitidissima* (canary beech) are dominant species in the mid-dense sub-canopy (6-8m tall) layer. A sparse shrub layer (1-3m tall) is dominated by *Acronychia laevis* (hard aspen), *Atractocarpus sessilis* (false gardenia) and *Myrsine porosa* (northern muttonwood). Thin wiry vines are common and vascular epiphytes scarce. The ground layer is very sparse composed of isolated clumps of seedlings and ferns. Occurs on ridges and upper slopes of the predominantly granite. Not a Wetland. (BVG1M: 2b).

**Short description:** Araucarian notophyll vine forest on granitic ridges and mountains

**Supplementary descriptions:** Neldner and Clarkson (in prep), 15. Stanton & Fell (2005) 48

**Subregions:** 1, 2, (6)

**Protected areas:** KULLA (Mcllwraith Range) NP (CYPAL), Cape Melville NP (CYPAL), Oyala Thumotang NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.2: The vulnerable plant species *Arenga australasica*, *Paramapania parvibractea*, and *Syzygium macilwraithianum*, endangered species *Phlegmariurus carinatus*, and near threatened species *Donella lanceolata*, occur in this ecosystem. Important genetic populations of native plantation tree *Araucaria cunninghamii*.

**Comments:** 3.12.2: Altanmoui, Mcllwraith and Melville Ranges.

**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 3.12.3

**Description:** Evergreen to semi-deciduous notophyll vine forest which includes *Acacia* spp. (wattle), *Blepharocarya involucrigera* (rose butternut), *Buchanania arborescens* (native mango), *Argyrodendron polyandrum* (brown tulip oak) and *Grevillea baileyana* (Findlay's silky oak). There is a sparse to mid-dense sub-canopy layer and a very sparse shrub or low tree layer is usually present. Also sometimes occurs as a semi-deciduous mesophyll vine forest with the *Acacia* spp. absent. Occurs on granitic slopes and plateaus. Not a Wetland. (BVG1M: 2b).

Vegetation communities in this regional ecosystem include:

3.12.3a: The dense, even canopy (15-35m tall) is composed of a mixture of deciduous and evergreen trees. *Acacia midgleyi* (brown salwood) *A. polystachya* (a wattle), *Buchanania arborescens* (native mango), *Aleurites moluccanus* (candlenut), *Argyrodendron polyandrum* (brown tulip oak), *Diospyros hebecarpa*, *Dysoxylum oppositifolium* (pink mahogany), *Endiandra longipedicellata* (buff walnut) and *Grevillea baileyana* (Findlay's silky oak) are frequent evergreen trees. Stem densities may be high in some areas. Frequent deciduous canopy trees include *Berrya javanica*, *Canarium australium* (scrub turpentine) and *Brachychiton velutinosus* (brush kurrajong). These trees may occur as emergents up to 45 metres tall in places. The mid-dense sub-canopy tree layer (5-20m tall) is composed of a variety of species with *Chionanthus ramiflorus* (native olive), *Endiandra glauca* (coach walnut), *Rinorea bengalensis* forma *bengalensis* and *Strychnos minor* occurring often. The palm *Ptychosperma elegans* (solitaire palm) is sometimes present in the sub-canopy. A very sparse shrub/low tree layer (0.5-8m tall) is usually present. *Tritaxis australiensis* (Shipton's glory), *Tabernaemontana orientalis*, *Wilkia rigidifolia*, *Micromelum minutum* (cluster berry), *Atractocarpus sessilis* (native gardenia), *Cleistanthus hylandii*, *Glycosmis trifoliata*, *Ixora timorensis* (black berry tree) and *Rinorea bengalensis* forma *bengalensis* occur frequently. Climbing palms, such as *Calamus caryotoides* (fish-tail lawyer cane) and *C. australis* (hairy mary) and vines such as *Flagellaria indica* (supplejack) and *Austrosteenisia blackii* (bloodvine), are commonly encountered. Epiphytes are sparse. *Asplenium australasicum* (bird's nest fern) is the most commonly encountered species. The ground layer is very sparse and composed mainly of seedlings. Occurs on ridges and upper slopes of the predominantly granite. Not a Wetland. (BVG1M: 5d).

3.12.3b: A fairly even, closed canopy (12-35m tall) dominated mainly by *Acacia polystachya* (a wattle), *A. midgleyi* (brown salwood) or *Blepharocarya involucrigera* (rose butternut). *Canarium australium* (scrub turpentine), *Grevillea baileyana* (Findlay's silky oak) *Lophostemon suaveolens* (swamp mahogany), *Argyrodendron polyandrum* (brown tulip oak) and *Buchanania arborescens* (native mango) are often present and subdominant in the canopy. *Eucalyptus* spp. form a sparse emergent layer (20-40m tall) in places. The sub-canopy layer (10-25 metres tall) consists of a variety of evergreen species with *Cryptocarya cunninghamii* (coconut laurel), *C. vulgaris* (northern laurel), *Dysoxylum acutangulum*, *Endiandra glauca* (coach walnut) and *Chionanthus ramiflorus* (native olive) the most frequent trees. A sparse, low tree layer (0.5-10m tall) is usually present. *Atractocarpus sessilis* (native gardenia), *Diploglottis macrantha*, *Tabernaemontana orientalis*, *Cryptocarya claudiana*, *Wilkia rigidifolia* and *Cupaniopsis flagelliformis* (brown tuckeroo) are frequently present in this layer. Scattered slender vines such as *Flagellaria indica* (supplejack) and *Tetracera nordtiana* var. *nordtiana*, are frequent. The climbing palms, *Calamus caryotoides* (fish-tail lawyer vine) and *C. australis* (hairy mary) are often present, and form dense thickets in disturbed areas. Epiphytes such as *Drynaria quercifolia* are relatively scarce. A very sparse ground layer is composed of seedling trees, graminoids and ferns. Occurs on ridges and upper slopes of granite ranges. Not a Wetland. (BVG1M: 5d).

3.12.3c: Deciduous and evergreen trees form a dense, more or less even canopy (20-35m tall). The deciduous trees with prominent buttressed trunks *Ficus albigula* var. *albigula* (fig) and *Tetrameles nudiflora* are common as emergents and can reach 45m tall. Frequent deciduous canopy trees include *Nauclea orientalis* (Leichhardt tree), *Bombax ceiba* var. *leiocarpum* (kapok), *Semecarpus australiensis* (tar tree), *Terminalia sericocarpa* (sovereignwood) and *Wrightia laevis* (white cheesewood). *Castanospermum australe* (black bean) is a very common component of the canopy occurring at high stem densities in some areas. Other commonly encountered, evergreen, canopy trees include *Aleurites moluccanus* (candlenut), *Alstonia scholaris* (milky pine), *Argyrodendron polyandrum* (brown tulip oak), *Beilschmiedia obtusifolia* (black walnut), *Buchanania arborescens* (native mango), *Cryptocarya hypospodia* (northern laurel), *C. triplinervis* var. *riparia* (brown laurel), *Syzygium bamagense* (Bamaga satinash), *Ganophyllum falcatum* (scaly ash), *Calophyllum australium* (calophyllum) and *Endiandra longipedicellata* (buff walnut). The sparse to mid-dense sub-canopy tree layer (15-25m tall) is composed of a variety of species including *Myristica globosa* subsp. *muelleri*, *Pisonia umbellifera* (cabbage wood), *Toeckia daemelianum* (Cape tamarind), *Mallotus* spp. and *Garcinia* spp. The palms *Caryota albertii*, *Ptychosperma elegans* (solitaire palm) and *Archontophoenix tuckeri* are often present. A very sparse shrub/low tree layer (1-12m tall) is usually present with *Cleistanthus apodus* (weeping cleistanthus), *Glycosmis trifoliata*, *Atractocarpus sessilis* (false gardenia), *Leea novoguineensis* (bandicoot berry), *Lunasia amara* var. *amara*, *Diospyros laurina* and *Ixora timorensis* (black berry tree) occurring frequently. Thin wiry vines such as *Flagellaria indica* (supplejack) are common. Climbing palms such as *Calamus australis* (hairy mary), *C. caryotoides* (fish-tail lawyer cane) and *C. warburgii* (wait a while) may be present. Epiphytes are sparse. The ground layer is very sparse and composed mainly of seedlings. Occurs on granite slopes. Not a Wetland. (BVG1M: 2b).

<b>Short description:</b>	Notophyll vine forest on granitic slopes and plateaus
<b>Supplementary descriptions:</b>	
<b>Subregions:</b>	1, (6)
<b>Protected areas:</b>	KULLA (McIlwraith Range) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Oyala Thumotang NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.12.3: Habitat for the endangered plant species <i>Phlegmariurus carinatus</i> , vulnerable plant species <i>Aglaia argentea</i> , <i>Acriopsis emarginata</i> , <i>Amomum queenslandicum</i> , <i>Arenga australasica</i> , <i>Croton caudatus</i> , <i>Croton choristadenius</i> , <i>Dansiea grandiflora</i> , <i>Dendrobium malbrownii</i> , <i>Eulophia pelorica</i> , <i>Freycinetia marginata</i> , <i>Freycinetia percostata</i> , <i>Habenaria macraithii</i> , <i>Hydnophytum ferrugineum</i> , <i>Hypserpa polyandra</i> var. <i>polyandra</i> , <i>Lasianthus hirsutus</i> , <i>Paramapania parvibractea</i> , , <i>Phlegmariurus phlegmarioides</i> , <i>Phyllanthera grayi</i> , <i>Syzygium macilwraithianum</i> , <i>Torenia polygonoides</i> and <i>Lasjia claudiensis</i> , and near threatened plant species <i>Acmena mackinnoniana</i> , <i>Donella lanceolata</i> , <i>Croton brachypus</i> , <i>Harpullia ramiflora</i> , <i>Litsea macrophylla</i> , <i>Margaritaria indica</i> , <i>Pandanus zea</i> , <i>Planchonella xylocarpa</i> , <i>Syzygium aqueum</i> . High numbers of endemic plant species. Large numbers of near threatened and uncommon butterfly species. Many fauna reach southern limits or are restricted to this unit, e.g. <i>Eclectus</i> parrot, butterfly species.
<b>Comments:</b>	3.12.3: Iron and McIlwraith Ranges. 3.12.3a: Iron and McIlwraith Ranges. 3.12.3b: Proposed RE 3.5.4x5 was amalgamated in to this vegetation community. Lockhart River and on Iron and McIlwraith Ranges. 3.12.3c: This unit occurs in patches too small to map. Iron and McIlwraith Ranges.
<b>Estimated extent:<sup>1</sup></b>	Pre-clearing 136000 ha; Remnant 2021 136000 ha
<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 3.12.4

**Description:** Notophyll vine forest of *Welchiodendron longivalve* (yellow box-penda) and *Acacia polystachya*. In gullies within this community a variant, where these species are not dominant, often occurs. Occurs on low hills and rises on igneous hills. Not a Wetland. (BVG1M: 2c).

Vegetation communities in this regional ecosystem include:

3.12.4a: *Welchiodendron longivalve* (yellow box-penda) and *Acacia polystachya* dominate the dense uneven canopy (16-22m tall). *Buchanania arborescens* (native mango) (dominant at site 931), *Canarium australianum* (scrub turpentine), *Cryptocarya triplinervis* var. *riparia* and *Ganophyllum falcatum* are frequent canopy trees. Occasional *Bombax ceiba* and *Canarium australianum* may be present as deciduous emergents. A mixed, dense sub-canopy layer (8-15m tall) is usually present. *Dracaena angustifolia* may occur at high densities in this layer. A sparse variable shrub layer (0.5-2.5m tall) is usually present with *Breynia cernua*, *Claoxylon tenerifolium*, *Clerodendrum floribundum*, *Tritaxis australiensis*, *Diospyros compacta*, *Drypetes deplanchei* and *Halfordia kendack* and *Abrus precatorius* frequently occurring. The ground layer is very sparse and variable in composition. *Scleria* spp., *Curcuma australasica* and *Oplismenus mollis* are characteristically found in this layer. Occurs on low igneous hills and rises. Not a Wetland. (BVG1M: 2c).

3.12.4b: Evergreen mesophyll/notophyll vine forest (18-25m) with *Endiandra glauca*, *Acacia polystachya*, *Syzygium bungadinnia*, *Canarium australianum* (scrub turpentine) and *Dysoxylum oppositifolium*. A sub-canopy (10-15m) contains canopy species as well as *Chionanthus ramiflorus*, *Arytera bifoliolata* and *Cryptocarya exfoliata*. The rock talus is sparsely covered with scattered epiphytes including *Drynaria quercifolia*. Occurs in sheltered gullies on igneous slopes. Not a Wetland. (BVG1M: 2c).

3.12.4c: Semi evergreen mesophyll vine thicket associated with springs in granite ranges. The canopy may only be one crown width and dominated by *Ficus* spp. The ground layer may be dominated by ferns. Occurs around small springs in granite ranges. Palustrine. (BVG1M: 2c).

**Short description:** Notophyll vine forest of *Welchiodendron longivalve* and *Acacia polystachya* on low hills and rises on igneous hills

### Supplementary descriptions:

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

**Protected areas:** Round Island CP, Possession Island NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 3.12.4: High diversity of vascular plants, many with restricted distributions. Structure varies with exposure.  
3.12.4a: High diversity of vascular plants, many with restricted distributions. Structure varies with exposure.

**Comments:** 3.12.4: RE 3.12.20 (part) was amalgamated in to this RE. Torres Strait islands.  
3.12.4a: May also occur on metamorphic slopes around Mt. Tozer. Torres Strait islands, including Badu and Moa.  
3.12.4b: Most abundant on Mabuiag Island, with scattered occurrences on Gebar and Warral Islands, Torres Strait.  
3.12.4c: Granite ranges in the central 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 3.12.5

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now a Wet Tropics regional ecosystem. The dense, fairly uneven canopy (16-19m tall) is dominated by a variety of evergreen species. *Agathis robusta* (kauri), *Carnarvonia araliifolia*, *Litsea bindoniana*, *Macaranga subdentata*, *Cryptocarya mackinnoniana* and *Syzygium cormiflorum* are the most commonly encountered species. *Beilschmiedia obtusifolia* and *Pleioluma xerocarpa* dominate the canopy in places. Emergent *Acacia celsa* up to 22 metres tall may be present. The sub-canopy layer (8-12m tall) is mid-dense to dense, with *Gossia myrsinocarpa*, *Chionanthus ramiflorus*, *Antirhea tenuiflora* and *Pullea stutzeri* the most frequent species. The shrub/low tree layer is variable, with *Harpullia rhyticarpa*, *Helicia australasica*, *H. nortoniana*, *Atractocarpus sessilis* and *Psychotria dallachiana* the most frequent species. The climbing palm, *Calamus caryotoides* frequently occurs in disturbed areas. Palms such as *Normanbya normanbyi* are occasionally present in sheltered areas. Epiphytes including *Asplenium nidus*, *Drynaria* spp. And *Platyserium* spp., are frequent on tree trunks and boulders. Occurs on upper slopes of mountains and ranges. Not a Wetland. (BVG1M: 6b).

**Short description:** Simple evergreen notophyll vine forest on upper slopes of mountains and ranges

**Supplementary descriptions:** Neldner and Clarkson (in prep), 23; Tracey (1982), 8

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.12.5: High diversity of vascular plants, many with restricted distributions.

**Comments:** 3.12.5: More extensive in the Wet Tropics bioregion.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.12.6

**Description:** The uneven closed canopy (15-25m tall) is dominated by *Litsea fawcettiana*, *Wodyetia bifurcata* (foxtail palm), *Aleurites moluccanus* (candlenut), *Polyalthia nitidissima* and *Syzygium bamagense* (Bamaga satinash). *Canarium australianum* (scrub turpentine) and *Sterculia quadrifida* (peanut tree) are deciduous canopy elements. A sparse sub-canopy layer (8-15m tall) and sparse shrub layer (1-8m tall) is usually present and composed of variety of species. Thin vines, such as *Cissus repens* and *Parsonsia velutina* occur frequently. Scattered plants of the climbing palm *Calamus caryotoides* are present. Herbs are very sparse, with the ground being covered with leaf litter. Occurs only on the slopes and colluvial sediments of granite ranges. Not a Wetland. (BVG1M: 2c).

Vegetation communities in this regional ecosystem include:

3.12.6a: [RE not in use]<sup>2</sup>: This now mapped as 3.12.6. The uneven closed canopy (15-25m tall) is dominated by *Litsea fawcettiana*, *Wodyetia bifurcata* (foxtail palm), *Aleurites moluccanus* (candlenut), *Polyalthia nitidissima* and *Syzygium bamagense* (Bamaga satinash). *Canarium australianum* (scrub turpentine) and *Sterculia quadrifida* (peanut tree) are deciduous canopy elements. A sparse sub-canopy layer (8-15m tall) and sparse shrub layer (1-8m tall) is usually present and composed of variety of species. Thin vines, such as *Cissus repens* and *Parsonsia velutina* occur frequently. Scattered plants of the climbing palm *Calamus caryotoides* are present. Herbs are very sparse, with the ground being covered with leaf litter. Occurs only on the slopes and colluvial sediments of granite ranges. Not a Wetland. (BVG1M: 2c).

3.12.6b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.6. Semi-deciduous mesophyll / notophyll vine forest on colluvial deposits of granite hills - Melville Range area. Occurs only on the slopes and colluvial sediments of granite ranges. Not a Wetland. (BVG1M: 2c).

**Short description:** Simple evergreen notophyll vine forest +/- *Wodyetia bifurcata* on colluvium of granite ranges

### Supplementary descriptions:

**Subregions:** 2

**Protected areas:** Cape Melville NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.6: High levels of endemic plant species. Habitat for vulnerable plant species including *Wodyetia bifurcata*, *Aglaia argentea* and *Calamus warburgii*, and the near threatened plant species: *Acmena mackinnoniana*, *Litsea macrophylla*, *Margaritaria indica*, *Pandanus zea* and *Syzygium buettnerianum* occur in this ecosystem. Parts of this regional ecosystem are habitat for the very restricted *Melicope fellii* and the frog *Litoria andiirrmalin*.

**Comments:** 3.12.6: Seed of *Wodyetia bifurcata* has been pilfered by smugglers. However, seed is becoming available from horticultural specimens and risk to wild populations should diminish through time. Restricted to Melville Range.  
3.12.6a: Seed of *Wodyetia bifurcata* has been pilfered by smugglers. However, seed is becoming available from horticultural specimens and risk to wild populations should diminish through time. Restricted to Melville Range.  
3.12.6b: Seed of *Wodyetia bifurcata* has been pilfered by smugglers. However, seed is becoming available from horticultural specimens and risk to wild populations should diminish through time. This vegetation community is distinguished from 3.12.6a by being on slopes. It is habitat for *Melicope fellii* and the frog *Litoria andiirrmalin*. This vegetation unit is probably more widespread than is mapped. Melville range area.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

### Regional ecosystem 3.12.7

<b>Description:</b>	Open forest of <i>Corymbia clarksoniana</i> (Clarkson's bloodwood) and <i>Eucalyptus brassiana</i> (Cape York redgum) +/- <i>C. stockeri</i> (gum topped bloodwood) +/- <i>E. cullenii</i> (Cullen's ironbark) +/- <i>Erythrophleum chlorostachys</i> (Cooktown ironwood). A sparse to mid-dense subcanopy can contain <i>Melaleuca nervosa</i> (woodland paperbark), <i>Acacia</i> spp., <i>Allocasuarina littoralis</i> (black sheoak) as well as rainforest species such as <i>Euroschinus falcatus</i> , <i>Chionanthus ramiflorus</i> (northern olive), <i>Calophyllum sil</i> (alligator bark), <i>Buchanania arborescens</i> (satinwood) and <i>Celtis paniculata</i> . The sparse shrublayer can contain canopy species as well as <i>Alyxia spicata</i> (chain fruit), <i>Wikstroemia indica</i> and <i>Dendrolobium umbellatum</i> (horse bush). The very sparse to sparse grassy groundlayer include <i>Heteropogon</i> spp. Or <i>Imperata cylindrica</i> . Occurs on granite ranges. Not a Wetland. (BVG1M: 9c).
<b>Short description:</b>	<i>Corymbia clarksoniana</i> , <i>Eucalyptus brassiana</i> open forest on granite ranges
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 36
<b>Subregions:</b>	1, 2
<b>Protected areas:</b>	KULLA (McIlwraith Range) NP (CYPAL), Cape Melville NP (CYPAL), Oyala Thumotang NP (CYPAL), KULLA (McIlwraith Range) RR, Ngalba-bulal NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.12.7: Potential habitat for NCA listed species: <i>Argophyllum verae</i> , <i>Brachychiton grandiflorus</i> , <i>Cecarria obtusifolia</i> , <i>Dockrillia wassellii</i> .
<b>Comments:</b>	3.12.7: The <i>C.stockeri</i> is likely to be <i>C.stockeri</i> subsp. <i>stockeri</i> . Occurs on western McIlwraith Range and the Melville Range.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 11000 ha; Remnant 2021 11000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

### Regional ecosystem 3.12.8

<b>Description:</b>	Woodland to open forest of <i>Corymbia clarksoniana</i> (Clarkson's bloodwood) often with <i>C. tessellaris</i> (Moreton Bay ash) as a subdominant. <i>Corymbia dallachiana</i> (Dallachy's gum), <i>C. novoguineensis</i> or <i>C. nesophila</i> (Melville Island bloodwood) can also occur, along with <i>Welchiodendron longivalve</i> (yellow box penda), which is usually more common in the sparse subcanopy where it occurs. The shrublayer is generally sparse though mid-dense groves of <i>Cycas badensis</i> can occur. The grassy groundlayer often contains <i>Heteropogon triticeus</i> (giant spear grass) and <i>Themeda triandra</i> (kangaroo grass). Another variant of this is <i>Corymbia clarksoniana</i> (Clarkson's bloodwood) with <i>E. leptophleba</i> (molloy red box) and <i>C. nesophila</i> (Melville Island bloodwood) subdominants. <i>W longivalve</i> (yellow box penda), <i>Livistona muelleri</i> (cabbage palm), and <i>Deplanchea tetraphylla</i> are common in the subcanopy. The shrub layer contains scattered <i>Acacia simsii</i> (Sim's wattle) and <i>Coelospermum reticulatum</i> (medicine bush) while the ground layer is made up of various grasses and sedge species. Occurs on granite coastal ranges and lowlands. Not a Wetland. (BVG1M: 9c).
<b>Short description:</b>	<i>Corymbia clarksoniana</i> +/- <i>C. tessellaris</i> open forest on coastal granite ranges and lowlands
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 37, 41-12; Stanton, Fell & Gooding (2008), G5b, MG5b, R5b, GD5s, R5s, R5e.
<b>Subregions:</b>	1, 3, (6)
<b>Protected areas:</b>	KULLA (McIlwraith Range) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Oyala Thumotang NP (CYPAL)
<b>Extent in reserves:</b>	High
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	3.12.8: The near threatened plant species <i>Margaritaria indica</i> and <i>Pandanus zea</i> occur in this ecosystem.
<b>Comments:</b>	3.12.8: McIlwraith Range and Iron Range, with extensive patches on some Torres Strait islands.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 19000 ha; Remnant 2021 18000 ha
<b>VM class:</b>	Least concern
<b>Biodiversity status:</b>	No concern at present
<b>Biodiversity status notes:</b>	

### Regional ecosystem 3.12.9

<b>Description:</b>	Open forest of <i>Corymbia tessellaris</i> (Moreton Bay ash) +/- <i>Welchiodendron longivalve</i> (yellow box penda) +/- <i>E. cullenii</i> (Cullen's ironbark) +/- <i>Corymbia clarksoniana</i> . The very sparse subcanopy may contain a number of vine forest species. A very sparse shrub layer may occur. The often mid-dense grassy ground layer is usually dominated by <i>Heteropogon triticeus</i> (giant spear grass) and / or <i>Imperata cylindrica</i> (blady grass) +/- other grass species. Occurs in footslopes and gullies off granite hills. Not a Wetland. (BVG1M: 9c).
<b>Short description:</b>	<i>Corymbia tessellaris</i> +/- <i>Welchiodendron longivalve</i> +/- <i>Eucalyptus cullenii</i> open forest on footslopes of granite hills
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 44-12; Stanton, Fell & Gooding (2008), G5g, GD5g, R5g, G5o, GD5o, R5o.
<b>Subregions:</b>	1, 3, (2), (6)
<b>Protected areas:</b>	Lizard Island NP, KULLA (McIlwraith Range) NP (CYPAL)
<b>Extent in reserves:</b>	Medium
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	3.12.9: There are several variants of this RE which include an open forest of <i>Corymbia tessellaris</i> , <i>Acacia crassicaarpa</i> and <i>Lophostemon suaveolens</i> (Lizard Island), a windswept shrubland of <i>C. tessellaris</i> and <i>Jacksonia thesioides</i> (Horn Island) and an open forest of <i>C. tessellaris</i> and <i>Eucalyptus brassiana</i> . East of McIlwraith Range and inner Torres Strait islands. Where frequent burning has occurred on some Torres Strait islands the communities are more open and grassy with emergent shrubs including <i>Grevillea parallela</i> (silver oak), <i>Pandanus</i> sp. and <i>Livistona muelleri</i> or as an open woodland with a mid layer that can include <i>Livistona muelleri</i> , <i>A. leptocarpa</i> and <i>Melaleuca nervosa</i> (woodland paperbark).
<b>Estimated extent:</b> <sup>1</sup>	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>	

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## Regional ecosystem 3.12.10

**Description:** Woodland to low open woodland of *Eucalyptus cullenii* (Cullen's ironbark) +/- *Corymbia clarksoniana* (Clarkson's bloodwood) or open woodland of *E. chlorophylla* (shiny leaved box). Occurs on granites hills and footslopes. Not a Wetland. (BVG1M: 13a).

Vegetation communities in this regional ecosystem include:

3.12.10a: Woodland to low open woodland of *Eucalyptus cullenii* (Cullen's ironbark) often with *Corymbia clarksoniana* (Clarkson's bloodwood) as a subdominant. *E. tetrodonta* or *Erythrophleum chlorostachys* may also be present, along with several other *Corymbia* spp. The very sparse to mid-dense subcanopy can contain canopy species, *Melaleuca viridiflora* (broad-leaved teatree), *Brachychiton* spp., *Grevillea glauca* (clothespeg Grevillea), *Persoonia falcata* (geebung) or *Planchonia careya* (cocky apple). In more hilly situations vine thicket species such as *Dendrolobium umbellatum* (horse bush), *Canarium australianum* (mango bark), *Cochlospermum gillivraei* (kapok) and *Bridelia tomentosa* can be present. A very sparse to mid-dense shrub layer often contains juvenile canopy species, *Alphitonia pomaderroides* (soapbush) or *Dendrolobium umbellatum* (horse bush). The mostly mid-dense grassy ground layer is usually dominated by *Heteropogon* spp., *Sarga plumosum* (plume sorghum) and *Schizachyrium* spp. (fire grass). Occurs on low to steep granite hills and footslopes. Not a Wetland. (BVG1M: 13a).

3.12.10b: Open woodland of *Eucalyptus chlorophylla* (shiny leaved box) and *Corymbia dallachiana* (Dallachy's gum) +/- *C. confertiflora* (cabbage gum) +/- *Eucalyptus* spp. Scattered canopy species can occur in the very sparse subcanopy and shrub layers along with *Dendrolobium umbellatum* (horse bush), *Melaleuca viridiflora* (broad-leaved teatree) and *Persoonia falcata* (geebung). The sparse to mid-dense grassy groundlayer can include *Sarga plumosum* (plume sorghum), *Heteropogon* spp., *Schizachyrium fragile* (fire grass) and *Eriachne rara* (Wanderrie grass). Occurs on granite hills. Not a Wetland. (BVG1M: 18c).

3.12.10c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.10. *Eucalyptus cullenii* (Cullen's ironbark) and *Corymbia dallachiana* (Dallachy's gum) dominate the sparse to very sparse canopy (11-19m tall). Other *Eucalyptus* spp. may be present in the canopy and are occasionally subdominant. *Dendrolobium umbellatum* (horse bush) is the primary species in a very sparse sub-canopy layer (4-8m tall). The sparse shrub layer (0.2-1.5m tall) is characterised by the presence of *Dolichandrone alternifolia* (lemonwood), *Flueggea virosa* subsp. *Melanthesoides* (white currant) and *Grevillea mimosoides*. The ground layer is sparse to mid-dense and dominated by the grasses, *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass) and *Sarga plumosum* (plume sorghum), and the forb *Chamaecrista absus* var. *absus*. Occurs on low granite hills and rises. Not a Wetland. (BVG1M: 13a).

3.12.10x2: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.12.44. Tall shrubs of *Melaleuca citrolens* (scrub teatree) usually with *M. foliolosa* (scale-leaved teatree) dominate the very sparse to sparse canopy (3-6m tall). Scattered emergent *Excoecaria parvifolia* (gutta percha) trees up to 10m tall are present in some areas. A sparse low shrub layer is usually present. The ground layer is short and very sparse, with *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grass) and *Fimbristylis* spp. being the most commonly encountered species. Bare areas are common. Occurs on low granite hills. Not a Wetland. (BVG1M: 21b).

**Short description:** *Eucalyptus cullenii* +/- *Corymbia clarksoniana* woodland or *E. chlorophylla* woodland on granitic ranges

**Supplementary descriptions:**

**Subregions:** 1, (5), (6), (2.4), (4), (2), (2.6), (7.9), (7), (9.3)

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Olkola NP (CYPAL), Oyala Thumotang NP (CYPAL), KULLA (McIlwraith Range) RR, Melsonby (Gaarraay) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Cape Melville NP (CYPAL), Kalkajaka NP (CYPAL), Black Mountain NP, Olkola (Kurumbila) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.10: Potential habitat for NCA listed species: *Brachychiton grandiflorus*, *Cycas tuckeri*, *Dendrobium bigibbum*, *Dockrillia wassellii*, *Glossocardia orthochaeta*.

<b>Comments:</b>	3.12.10: Occurs along the length of the Great Dividing Range. Also in small patches on ranges from Cooktown to the Altamouli Range. 3.12.10a: This vegetation community is unmappable and interspersed with vegetation community 3.12.10b. Occurs along the length of the Great Dividing Range. Also in small patches on ranges from Cooktown to the Altamouli Range. 3.12.10b: This vegetation community is unmappable and interspersed with vegetation community 3.12.10a. Occurs along the length of the Great Dividing Range. Also in small patches on ranges from Cooktown to the Altamouli Range. 3.12.10c: This vegetation community is unmappable and interspersed with vegetation community 3.12.10b and 3.12.10a. South west of Hann River. 3.12.10x2: Western part of bioregion. Extends into adjacent Gulf Plains bioregion.
<b>Estimated extent:</b> <sup>1</sup>	Pre-clearing 170000 ha; Remnant 2021 170000 ha
<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 3.12.11

<b>Description:</b>	<i>Corymbia stockeri</i> (gum topped bloodwood) +/- <i>Welchiodendron longivalve</i> (yellow box penda) woodland to open forest. Canopy species occur in the very sparse to sparse subcanopy and shrublayers along with occasional <i>Livistona muelleri</i> (cabbage palm) and <i>Parinari nonda</i> (nonda plum). The sparse to mid-dense grassy groundlayer is often dominated by <i>Heteropogon triticeus</i> (giant spear grass) and/or <i>Arundinella</i> spp. Occurs on steep to rolling granite hills. Not a Wetland. (BVG1M: 14d).
<b>Short description:</b>	<i>Corymbia stockeri</i> +/- <i>Welchiodendron longivalve</i> +/- <i>C. tessellaris</i> +/- <i>Eucalyptus cullenii</i> woodland on steep to rolling granite hills
<b>Supplementary descriptions:</b>	Neldner and Clarkson (in prep), 74; Stanton, Fell & Gooding (2008), G5I, G5v, GD5I, R5I, R5m
<b>Subregions:</b>	3, 1, (4)
<b>Protected areas:</b>	Kutini-Payamu (Iron Range) NP (CYPAL), Possession Island NP
<b>Extent in reserves:</b>	Medium
<b>Wetland:</b>	Not a Wetland
<b>Special values:</b>	
<b>Comments:</b>	3.12.11: In some areas <i>Eucalyptus cullenii</i> (Cullen's ironbark) or <i>Corymbia tessellaris</i> (Moreton Bay ash) can be co-dominant. <i>C.stockeri</i> is most likely to be subsp. <i>stockeri</i> . Southern Torres Strait islands and near Lockhart River.
<b>Estimated extent:</b> <sup>1</sup>	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>	

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## Regional ecosystem 3.12.12

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.40. *Corymbia nesophila* (Melville Island bloodwood) dominates the sparse canopy (22-28m tall). *E. crebra* (narrow-leaved ironbark) is often present as a subdominant canopy tree. A number of other *Eucalyptus* spp. or *Corymbia* spp. may form minor components of the canopy. *Eucalyptus brassiana* (Cape York red gum) occurs as a codominant canopy species at a number of sites. The very sparse sub-canopy tree layer (4-8m tall) is dominated by *C. nesophila*, *Acacia flavescens* (powder puff wattle), *Lophostemon suaveolens* (swamp mahogany) and *Grevillea glauca* (bushman's clothes peg). The shrub layer (0.5-2.5m tall) is very sparse. *Acacia flavescens*, *Erythrophleum chlorostachys* (Cooktown ironwood), *C. nesophila* and *Persoonia falcata* (geebung) are the most frequently encountered species. The ground layer varies from sparse to sparse to mid-dense. The dominant grasses are *Themeda triandra* (kangaroo grass), *Eriachne pallescens* (wanderrie grass), *Aristida* spp. (three-awned speargrass) and *Heteropogon triticeus* (giant speargrass). Common forbs include *Spermacoe* spp., *Cyanthillium cinereum* and *Flemingia parviflora* (flemingia). Mainly occurs on granitic hills. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* +/- *Eucalyptus crebra* woodland on wet coastal granitic hills

**Supplementary descriptions:** Neldner and Clarkson (in prep), 82

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.12: South-east of bioregion.

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

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.12.13

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as either 3.12.8 or 3.12.40. *Corymbia nesophila* (Melville Island bloodwood) and *C. stockeri* subsp. *peninsularis* (gum topped bloodwood) dominate the sparse to mid-dense canopy (21-28m tall). The open sub-canopy usually contains *Grevillea parallela* (silver oak) and *Acacia leptocarpa* (wattle). The shrub layer is sparse and often contains *Coelospermum reticulatum* (medicine bush), though in some instances a diverse mid layer can include *Jacksonia thesioides*, *Acacia brassii*, *Livistona muelleri*, *Xylomelum scottianum*, *Melaleuca stenostachya* and *Acacia simsii*. *Themeda triandra* (kangaroo grass) often dominates the grassy ground layer. Mainly occurs on acid volcanic hills and ranges. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* and *C. stockeri* subsp. *peninsularis* woodland on acid volcanic hills

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), G5r, GD5e, R5r.

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.13: Torres Strait islands.

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

**VM class:** Least concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.12.14

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.42. Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) or *Corymbia stockeri* (gum-topped bloodwood) +/- *E. tetrodonta*. There is a sparse to very sparse sub-canopy layer and a very sparse to sparse shrub layer is generally present. Occurs on acid volcanic hills and ridges. Not a Wetland. (BVG1M: 14d).

Vegetation communities in this regional ecosystem include:

3.12.14a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.42. *Eucalyptus tetrodonta* (Darwin stringybark) dominates the sparse canopy (12-17m tall). *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is always present and *Erythrophleum chlorostachys* (Cooktown ironwood) is often present as subdominant canopy trees. *Eucalyptus cullenii* (Cullen's ironbark) is sometimes present and may be codominant at some sites. *E. tetrodonta*, *Grevillea glauca* (bushman's clothes peg) and *Melaleuca stenostachya* (fibre-barked teatree) are the most frequent trees in the very sparse sub-canopy layer (4-12m tall). A very sparse to sparse shrub layer (0.2-1.8m tall) is present. *Acacia calyculata* (a wattle) and less frequently *Xanthorrhoea johnsonii* (grass tree) dominate this layer. The ground layer is sparse to mid-dense, and dominated by the grasses, *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Schizachyrium fragile* (fire grass) and *Pseudopogonatherum contortum* (a grass) and the forbs *Spermacoce* spp. and *Crotalaria medicaginea* (trefoil rattle pod). Occurs sporadically on rises and ridges. Not a Wetland. (BVG1M: 14d).

3.12.14b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.42. *Corymbia stockeri* (gum-topped bloodwood) *Corymbia hylandii* (Hyland's bloodwood) and *E. tetrodonta* (Darwin stringybark) are the dominant species in the sparse canopy (10-15m tall). *E. chlorophylla* (shiny-leaved box) and *E. cullenii* (Cullen's ironbark) are frequently present as subdominant trees. The very sparse shrub layer is composed of a variety of species that may dominate at different sites, *Corymbia stockeri*, *E. tetrodonta* and *Petalostigma banksii* (smooth-leaved quinine) the most frequent dominants. The ground layer is sparse to mid-dense, and dominated by the grasses, *Triodia microstachya* (spinifex), *Eriachne* spp. (wanderrie grass), *Aristida* spp. (three-awned speargrass), *Schizachyrium* spp. (fire grass), *Heteropogon triticeus* (giant spear grass) and *Digitaria* spp. Occurs on acid volcanic hills. Not a Wetland. (BVG1M: 14d).

3.12.14c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.42. *Corymbia stockeri* (gum-topped bloodwood) and *Eucalyptus megasepala* usually dominate the sparse canopy (9-15m, occasionally 20m tall). *Melaleuca stenostachya* (fibre-barked teatree) usually dominates a very sparse sub-canopy tree layer (8-12m tall). *M. viridiflora* (broad-leaved teatree) is also frequently present. A sparse shrub layer (3-8m tall) is usually present. *Petalostigma banksii* (smooth-leaved quinine) and *Corymbia stockeri* frequently dominate this layer. The ground layer is sparse to mid-dense and dominated by the grasses, *Schizachyrium fragile* (fire grass), *Sarga plumosum* (plume sorghum) and *Heteropogon triticeus* (giant speargrass). Occurs on granite hills. Not a Wetland. (BVG1M: 14d).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia stockeri* subsp. *peninsularis* woodland on rises and ridges

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.14: Coen-Yamba Inlier and the Altanmoui Range.  
3.12.14a: Coen-Yamba Inlier.  
3.12.14b: Altanmoui Range.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.12.15

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as either 3.12.40 or 3.11.11. Woodland to open forest of *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia nesophila* (Melville Island bloodwood) There is a sparse sub-canopy layer and a sparse low shrub layer is usually present. Occurs on low hills on granites. Not a Wetland. (BVG1M: 14d).

Vegetation communities in this regional ecosystem include:

3.12.15a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.40. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a distinct but discontinuous sparse to mid-dense canopy (12-20m tall). *Corymbia nesophila* (Melville Island bloodwood) occurs as a subdominant canopy species. *Melaleuca* spp. (teatree), *Acacia* spp. (wattle) and *Lophostemon suaveolens* (swamp mahogany) form a sparse sub-canopy layer (6-12m tall). A sparse low shrub layer (0.5-3m tall) dominated by *Canarium australianum* (scrub turpentine), *Erythrophleum chlorostachys* (Cooktown ironwood) and *Eucalyptus* spp. and *Corymbia* spp. are usually present. The ground layer is usually sparse and dominated by the grasses *Imperata cylindrica* (blady grass), *Mnesithea rottboellioides* (northern cane grass) and *Alloterospis semialata* (cockatoo grass) and the mat rush, *Lomandra* spp. Occurs on low hills on granites. Not a Wetland. (BVG1M: 14d).

3.12.15b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.11. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a distinct but discontinuous sparse to mid-dense canopy (12-20m tall). *Corymbia nesophila* (Melville Island bloodwood) occurs as a subdominant canopy species. *Melaleuca* spp. (teatree), *Acacia* spp. (wattle) and *Lophostemon suaveolens* (swamp mahogany) form a sparse sub-canopy layer (6-12m tall). A sparse low shrub layer (0.5-3m tall) dominated by *Canarium australianum* (scrub turpentine), *Erythrophleum chlorostachys* (Cooktown ironwood) and *Eucalyptus* spp. and *Corymbia* spp. are usually present. The ground layer is usually sparse and dominated by the grasses *Imperata cylindrica* (blady grass), *Mnesithea rottboellioides* (northern cane grass) and *Alloterospis semialata* (cockatoo grass) and the mat rush, *Lomandra* spp. Occurs on metamorphic low hills. Not a Wetland. (BVG1M: 14d).

3.12.15x1a: [RE not in use]<sup>2</sup>: This proposed new vegetation community is now mapped as 3.12.42. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a sparse to mid-dense canopy (14-26m tall). *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant in the canopy. *C. tessellaris* (Moreton Bay ash) and *Lophostemon suaveolens* (swamp mahogany) are also frequently present in the canopy. The very sparse to sparse sub-canopy tree layer (3-15m tall) is dominated by *Acacia flavescens* (powderpuff wattle), *Parinari nonda* (nonda plum), *Grevillea parallela* (silver oak), *Erythrophleum chlorostachys* (Cooktown ironwood) and *Melaleuca viridiflora* (broad-leaved teatree). *Livistona muelleri* (dwarf fan palm) is common in the sub-canopy tree layer and dominated this layer at one site. The very sparse shrub layer (0.5-2m tall) is composed of a variety of young trees and shrubby regrowth. The ground layer is usually sparse to mid-dense and frequently dominated by *Heteropogon triticeus* (giant speargrass), *Mnesithea rottboellioides* (northern cane grass), *Dianella* spp., *Imperata cylindrica* (blady grass) and *Sarga plumosum* (plume sorghum). Occurs on granite ranges. Not a Wetland. (BVG1M: 14d).

3.12.15x1b: [RE not in use]<sup>2</sup>: This proposed new vegetation community is now mapped as 3.12.40. *Eucalyptus tetrodonta* (Darwin stringybark) and *Corymbia nesophila* (Melville Island bloodwood) dominate the very sparse to mid-dense canopy (10-28m tall). In most situations both species are present and codominant, however, *C. nesophila* may be dominant or occasionally absent. *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is sometimes present in the canopy. A very sparse to sparse sub-canopy tree layer (8-20m tall) is present with *Erythrophleum chlorostachys* (Cooktown ironwood), just below the canopy, *Grevillea glauca* (bushman's clothes peg), *Parinari nonda* (nonda plum) and *Acacia rothii* (Roth's wattle) the most frequent species. A very sparse low tree layer (2-8m tall) is sometimes present. The shrub layer (0.3-2.5m tall) is dominated mainly by species that also occur in the tree layers and is sparse to mid-dense. The shrub layer of recently burnt areas is usually mid-dense. The ground layer is sparse to mid-dense and dominated by grasses. *Heteropogon triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum), *Thaumastochloa* spp. and *Eriachne* spp. (wanderrie grass) frequently dominating the ground layer biomass. Occurs on granite ranges. Not a Wetland. (BVG1M: 14d).

3.12.15x1c: [RE not in use]<sup>2</sup>: This proposed new vegetation community is now mapped as 3.12.41. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a distinct but discontinuous canopy (9-25m tall). *Corymbia nesophila* (Melville Island bloodwood) is a subdominant to codominant canopy species. A very sparse to sparse sub-canopy layer (5-12m tall) is characterised by *Asteromyrtus brassii*, *Neofabricia myrtifolia* (yellow teatree), *Grevillea glauca* (bushman's clothes peg) and *Acacia rothii* (Roth's wattle). Scattered low trees (2-6m tall) are sometimes present and a very sparse to mid-dense shrub layer (0.5-2m tall) is dominated by heath shrubs such as *Jacksonia thesioides*, *Neoroepera banksii*, *Choriceras tricornis* (Cape choriceras), *Asteromyrtus lysicephala* (back to front bush) and *Acacia calyculata* (a wattle). These often occur at high densities. The ground layer is usually very sparse to mid-dense and dominated by the sedge *Schoenus sparteus* and the grasses *Heteropogon triticeus* (giant speargrass) and *Eulalia mackinlayi* (silky browntop). Occurs on granite ranges. Not a Wetland. (BVG1M: 14d).

3.12.15x2a: [RE not in use]<sup>2</sup>: This proposed new vegetation community is now mapped as 3.12.42. *Eucalyptus tetrodonta* (Darwin stringybark) predominates forming a sparse canopy (12-28m tall). *Corymbia clarksoniana* (Clarkson's bloodwood) is often present and sometimes codominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) is also frequently present in both the canopy and the very sparse to sparse sub-canopy tree layer (3-14m tall). *Grevillea glauca* (bushman's clothes peg), *Erythroxylum ellipticum* (matchwood), *Alphitonia pomaderroides* (soapwood), *Eucalyptus tetrodonta* and *Melaleuca nervosa* (woodland



paperbark) are other common sub-canopy trees. A very sparse to sparse shrub layer (0.3-2.5m tall) is composed of a variety of young trees and shrubby regrowth. The ground layer is usually very sparse to mid-dense and dominated by grasses, usually *Schizachyrium* spp. (firegrass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panic), *Aristida* spp. (three-awn speargrass), *Alloteropsis semialata* (cockatoo grass) and *Thaumastochloa* spp. Occurs on sandy soil on eroded granite. Not a Wetland. (BVG1M: 14d).

3.12.15x2b: [RE not in use]<sup>2</sup>: This proposed new vegetation community is now mapped as 3.12.42. *Eucalyptus tetrodonta* (Darwin stringybark) predominates, forming a distinct but discontinuous sparse canopy (17-26m tall). *Corymbia nesophila* (Melville Island bloodwood) and *C. clarksoniana* (Clarkson's bloodwood) may be subdominant in the canopy. *Erythrophleum chlorostachys* (Cooktown ironwood) may occur just below the canopy, occasionally forming a mid-dense layer. sub-canopy trees (4-15m tall) are sometimes present. A sparse low shrub layer (0.5-2m tall) composed of young trees and shrubby regrowth is often present. The ground layer can be very sparse to mid-dense and is dominated by grasses. The primary species in this layer are *Schizachyrium* spp. (fire grass), *Sarga plumosum* (plume sorghum), *Panicum* spp. (native panics), *Alloteropsis semialata* (cockatoo grass) and *Thaumastochloa* spp. Occurs on low granite hills. Not a Wetland. (BVG1M: 14a).

**Short description:** *Eucalyptus tetrodonta* +/- *Corymbia nesophila* woodland on low hills on granites

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:** 3.12.15: Conspicuous ground layer of *Imperata cylindrica* and *Mnesithea rottboellioides*.

**Comments:** 3.12.15: West of Lockhart River.  
3.12.15a: West of Lockhart River.  
3.12.15b: West of Lockhart River.  
3.12.15x1a: Ranges near Lockhart River.  
3.12.15x1b: Ranges near Lockhart River.  
3.12.15x1c: Ranges near Lockhart River.  
3.12.15x2b: South of the bioregion.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.16

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as either 3.12.46, 3.12.47 or 3.11.7. Woodland to low woodland of *Melaleuca viridiflora* (broad-leaved teatree) or *M. stenostachya* (fibre-barked teatree). *Eucalyptus tetrodonta* (Darwin stringybark) or *Corymbia stockeri* may be present as part of the canopy or as an emergent tree. A very sparse to sparse shrub layer with a variety of species is usually present. Associated with granitic hills. Not a Wetland. (BVG1M: 28c).

Vegetation communities in this regional ecosystem include:

3.12.16a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.47. *Melaleuca viridiflora* (broad-leaved teatree) together with *Asteromyrtus brassii*, *M. stenostachya* (teatree) and sometimes *Neofabricia myrtifolia* (yellow teatree) dominate the sparse canopy (4-11m tall). *Eucalyptus tetrodonta* (Darwin stringybark) is present as part of the canopy or as an emergent tree (8-12m tall). A sparse shrub layer (0.5-1m tall) is present where *Asteromyrtus brassii*, *Choriceras tricornis* (Cape choriceras) and *Neofabricia myrtifolia* are often common. The ground layer is sparse and frequently dominated by *Xanthorrhoea johnsonii* (grass tree). *Eriachne* spp. (wanderrie grass), *Schoenus sparteus* and *Aristida latifolia* (three-awned speargrass) are frequent components of the ground layer. Associated with granitic hills. Not a Wetland. (BVG1M: 28c).

3.12.16b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.11.7. *Melaleuca viridiflora* (broad-leaved teatree) together with *Asteromyrtus brassii*, *M. stenostachya* (teatree) and sometimes *Neofabricia myrtifolia* (yellow teatree) dominate the sparse canopy (4-11m tall). *Eucalyptus tetrodonta* (Darwin stringybark) is present as part of the canopy or as an emergent tree (8-12m tall). A sparse shrub layer (0.5-1m tall) is present where *Asteromyrtus brassii*, *Choriceras tricornis* (Cape choriceras) and *Neofabricia myrtifolia* are often common. The ground layer is sparse and frequently dominated by *Xanthorrhoea johnsonii* (grass tree). *Eriachne* spp. (wanderrie grass), *Schoenus sparteus* and *Aristida latifolia* (three-awned speargrass) are frequent components of the ground layer. Associated with metamorphic hills. Not a Wetland. (BVG1M: 28c).

3.12.16c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.46. *Melaleuca stenostachya* (teatree) dominates the sparse canopy (8-12m tall). *Acacia leptostachya* (slender wattle) is generally subdominant in both the canopy and sub-canopy layers. Scattered *Corymbia stockeri* and *Eucalyptus tetrodonta* (Darwin stringybark) trees are occasionally present and may emerge above the canopy. *A. leptostachya*, *Jacksonia thesioides*, *Lithomyrtus retusa*, *Petalostigma banksii* (smooth-leaved quinine), *Melaleuca stenostachya* and *Neofabricia sericisepala* (yellow teatree) are the most abundant shrubs in the very sparse shrub layer (0.5-2m tall). The ground layer is very sparse. The graminoids, *Eriachne* spp. (wanderrie grass), *Thaumastochloa* spp., *Schizachyrium fragile* (fire grass) and *Schoenus sparteus* making up most of the biomass. Occurs on granite ranges. Not a Wetland. (BVG1M: 24a).

**Short description:** *Melaleuca viridiflora* and *Asteromyrtus brassii* woodland on granitic hills

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.16: West of Lockhart River.  
3.12.16a: West of Lockhart River.  
3.12.16b: West of Lockhart River.  
3.12.16c: West of Lockhart River.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

## Regional ecosystem 3.12.17

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.18. *Eucalyptus leptophleba* (Molloy red box) or *Corymbia clarksoniana* (Clarkson's bloodwood) dominate the very sparse to sparse canopy. *Corymbia dallachiana* (Dallachy's gum) or *Erythrophleum chlorostachys* (Cooktown ironwood) may also be present in the canopy. A very sparse to sparse sub-canopy tree layer (4-10m tall) is usually present. A very sparse to sparse shrub layer is often present. Occurs on igneous hills and ranges. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

3.12.17a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.18a. *Eucalyptus leptophleba* (Molloy red box) dominates the very sparse to sparse canopy (11-22m tall). *Corymbia dallachiana* (Dallachy's gum) is always present in the canopy. *E. chlorophylla* (shiny-leaved box) is sometimes present with *E. leptophleba* and occasionally replaces it as the dominant canopy tree. Scattered *E. cullenii* (Cullen's ironbark) and *Erythrophleum chlorostachys* (Cooktown ironwood) trees are sometimes present. A very sparse to sparse sub-canopy tree layer (4-10m tall) is usually present where *Eucalyptus leptophleba*, *Dendrolobium umbellatum* (horse bush), *Erythroxylum ellipticum* (matchwood) and *Brachychiton garrawayae* (kurrajong) are the most commonly encountered species. *Antidesma ghaesembilla* (black currant), *Flueggea virosa* subsp. *melanthesoides* (white currant), *Planchonia careya* (cocky apple), *Alphitonia pomaderroides* (soapwood), *Dendrolobium umbellatum* and *Grewia savannicola* (dog's balls) are usually the primary species in a very sparse to sparse shrub layer (0.5-3m tall). The ground layer is mid-dense to dense and dominated by a variety of grasses including *Heteropogon contortus* (black speargrass), *H. triticeus* (giant speargrass), *Sarga plumosum* (plume sorghum) and *Themeda triandra* (kangaroo grass). Occurs on igneous hills and ranges. Not a Wetland. (BVG1M: 9b).

3.12.17b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.18a. Constituent vegetation communities 3.12.17a and 3.12.17b now amalgamated into RE 3.12.18a. Occurs on igneous hills and mountains. Not a Wetland. (BVG1M: 9c).

3.12.17x1: [RE not in use]<sup>2</sup>: This proposed new RE is now mapped as 3.10.15. *Eucalyptus chlorophylla* (shiny-leaved box) trees dominate the very sparse to sparse canopy (6-10m tall). *Melaleuca viridiflora* (broad-leaved teatree) and *M. foliolosa* (scale-leaved teatree) frequently occur as scattered sub-canopy trees (4-8m tall). Scattered shrubs (0.5-2m tall) are frequently present. The sparse ground layer is usually dominated by the perennial grasses *Themeda triandra* (kangaroo grass), *Heteropogon triticeus* (giant speargrass) and *H. contortus* (black speargrass). Occurs on granites near edge of Tertiary plateaus. Not a Wetland. (BVG1M: 9b).

**Short description:** *Eucalyptus leptophleba* or *Corymbia clarksoniana* open woodland on igneous hills and ranges

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.17: Coen Inlier.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.18

**Description:** Woodland to open woodland of *Eucalyptus leptophleba* (Molloy red box) and *Corymbia clarksoniana* (Clarkson's bloodwood) or *C. disjuncta* (cabbage gum) woodland. Occur on steep to low granite hills. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

3.12.18a: Woodland to open woodland of *Eucalyptus leptophleba* (Molloy red box) often with *Corymbia clarksoniana* (Clarkson's bloodwood) as a subdominant. *E. platyphylla* (poplar gum) may be codominant when it occurs. A very sparse to sparse subcanopy contains canopy species, *Dendrolobium umbellatum* (horse bush) or *Acacia rothii*. Similar species occur in a very sparse to sparse shrub layer with *Canarium australianum* (mango bark) or *Ficus opposita* (sandpaper fig) often occurring. The mid-dense to dense grassy groundlayer is dominated by *Heteropogon contortus* (black spear grass), *H. triticeus* (giant speargrass), and *Mnesithea rottboellioides* (northern cane grass) +/- *Sarga plumosum* (plumed sorghum) +/- *Panicum* spp. +/- *Capillipedium parviflorum* +/- *Themeda triandra* (kangaroo grass). Occurs on steep to low granite hills. Not a Wetland. (BVG1M: 9b).

3.12.18b: Woodland to low open woodland of *Corymbia disjuncta* (cabbage gum) +/- *C. clarksoniana* (Clarkson's bloodwood). Scattered *C. disjuncta*, *Dendrolobium umbellatum* (horsebush), *Erythrophleum chlorostachys* (Cooktown ironwood) and *Ptilostigma malabaricum* (lilac Bauhinia) can occur in the very sparse subcanopy and shrublayer. *Heteropogon* spp. (speargrass) +/- *Imperata cylindrica* (blady grass) dominate the dense grassy ground layer. Occurs on slopes of steep granite hills. Not a Wetland. (BVG1M: 9b).

**Short description:** *Eucalyptus leptophleba* and *Corymbia clarksoniana* woodland or *C. disjuncta* woodland on steep to low igneous hills

### Supplementary descriptions:

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

**Protected areas:** Oyala Thumotang NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), KULLA (McIlwraith Range) RR

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.18: Potential habitat for NCA listed species: *Brachychiton grandiflorus*, *Cycas tuckeri*, *Dockrillia wassellii*.

**Comments:** 3.12.18: 3.12.17 and 3.12.19a were amalgamated in to this RE. Occurs from Musgrave to Temple Bay on Coen-Yambo Inlier. Small area near Bamaga.  
3.12.18a: Central Peninsula along the Great Dividing Range.  
3.12.18b: Restricted to hills northeast of Archer River Roadhouse.

**Estimated extent:**<sup>1</sup> Pre-clearing 48000 ha; Remnant 2021 48000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.19

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.18 (part), 3.12.42 (part). Woodland of *Corymbia confertiflora* (broad-leaved carbeen) or *Eucalyptus tetradonta* (Darwin stringybark). In exposed situations the *C. confertiflora* vegetation community forms low open woodlands. A very sparse sub-canopy may be present and a very sparse shrub layer is generally present. Occurs on volcanic hills and ranges. Not a Wetland. (BVG1M: 9b).

Vegetation communities in this regional ecosystem include:

3.12.19a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.18b. *Corymbia disjuncta* (broad-leaved carbeen) dominates the sparse canopy (7-20m tall) forming woodlands, and low open woodlands in exposed situations. *C. clarksoniana* (Clarkson's bloodwood) is a frequent subdominant tree. *E. platyphylla* (poplar gum) is occasionally present in the canopy. A very sparse shrub layer (0.5-2m tall) is sometimes present, with *Flueggea virosa* subsp. *Melanthesoides* and *Grewia latifolia*. Restricted to granodiorite hills and ranges. Not a Wetland. (BVG1M: 9b).

3.12.19b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.42. *Eucalyptus tetradonta* (Darwin stringybark) dominates the sparse canopy (12-22m tall). *Corymbia stockeri* subsp. *peninsularis* (gum-topped bloodwood) is always present and *Erythrophleum chlorostachys* (Cooktown ironwood) is often present as subdominant canopy trees. *Corymbia nesophila* (Melville Island bloodwood) is occasionally present and may be dominant in places. *Adenanthera abrosperma* (bead tree), *Erythrophleum chlorostachys* and *Grevillea glauca* (bushman's clothes peg) are the most frequently encountered trees in the very sparse sub-canopy layer (4-12m tall). A very sparse to sparse shrub layer (0.2-2m tall) is present. *Xanthorrhoea johnsonii* (grass tree), or less frequently, *Bossiaea armitii* dominates this layer. *Corymbia stockeri* subsp. *peninsularis*, *Eucalyptus tetradonta*, *Planchonia careya* (cocky apple) and *Acacia rothii* (Roth's wattle) are other commonly encountered shrubs. The ground layer is sparse to mid-dense and dominated by grasses such as *Thaumastochloa* spp., *Heteropogon triticeus* (giant speargrass) and *Schizachyrium fragile* (fire grass) and the sedge *Schoenus sparteus*. Occurs on volcanic hills and ranges. Not a Wetland. (BVG1M: 14d).

**Short description:** *Corymbia confertiflora* or *Eucalyptus tetradonta* woodland volcanic hills and ranges

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.19: Central Peninsula.  
3.12.19a: Restricted to Central Peninsula.  
3.12.19b: Iron Range area.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.20

**Description:** Evergreen notophyll vine forest dominated by *Welchiodendron longivalve* (yellow box-penda) often with *Acacia polystachya*, *Canarium australianum* (scrub turpentine) or *Cochlospermum gillivraei* (kapok). Occasional *Eucalyptus* spp. may be present as emergents. A mixed, sparse sub-canopy layer is sometimes present. A variable, but generally sparse shrub layer is usually present and often includes *Dalbergia densa*, *Tabernaemontana orientalis* (banana bush), *Alyxia spicata* and juvenile *W. longivalve*. The ground layer is very sparse to sparse and composed of *Drynaria quercifolia*, a variable mix of herb and graminoid species. Occurs on headlands. Not a Wetland. (BVG1M: 2c).

**Short description:** Evergreen notophyll vine forest dominated by *Welchiodendron longivalve* on headlands

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), G14c, G14d, G14h, GD14c, GD14d, R14c, R14d

**Subregions:** 3

**Protected areas:** Possession Island NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 3.12.20: Habitat for the vulnerable species *Dendrobium x superbiens*, and *Psydrax reticulata*.

**Comments:** 3.12.20: Included in Littoral Rainforest and Coastal Vine Thickets ecological community protected under the Commonwealth's EPBC act (1999). Occurs on northern headlands and Torres Strait islands. On windswept headlands with poor soil development this community is restricted to a shrubland.

**Estimated extent:**<sup>1</sup> Pre-clearing 6000 ha; Remnant 2021 5000 ha

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.12.21

**Description:** Deciduous to semi-deciduous vine thicket to closed forest composed of a variety of mainly dry season deciduous species. Dominants can include *Acacia polystachya* (wattle), *Buchanania arborescens* (satinwood), *Sterculia quadrifida* (peanut tree) and *Cochlospermum gillivraei* (kapok). *Canarium australianum* (mango bark), *Bombax ceiba* and *Gyrocarpus americanus* (helicopter tree) are also common and can also occur as emergents. A very sparse to sparse subcanopy sometimes occurs with a range of *Terminalia* spp., *Alphitonia* spp., *Ficus* spp. and *Acacia* spp. The very sparse to mid-dense shrublayer often contains *Micromelum minutum* (lime berry), *Eugenia reinwardtiana* (Cedar Bay cherry) and *Drypetes deplanchei* (yellow tulipwood). Commonly found vines include *Flagellaria indica* (supplejack), *Abrus precatorius* (crab-eye vine) and *Trophis scandens* subsp. *Scandens* (burny vine). On some coastal areas and islands *Manilkara kauki* (Wonga plum) can also be dominant. Occurs on granite boulder slopes and on igneous slopes. Not a Wetland. (BVG1M: 7b).

Vegetation communities in this regional ecosystem include:

3.12.21a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.21. The uneven sparse to mid-dense canopy (5-12m tall) is composed of a variety of mainly dry season deciduous species. *Cochlospermum gillivraei* (kapok), *Canarium australianum* (scrub turpentine), *Terminalia muelleri* (Mueller's damson) and *Acacia polystachya* (a wattle) frequently dominate this layer. *Eucalyptus crebra* (narrow-leaved ironbark) and *Welchiodendron longivalve* (yellow box-penda) are often present as part of the canopy or as emergents (12-15m tall). A very sparse sub-canopy layer (3-7m tall) is sometimes present. The sparse to mid-dense shrub layer (0.5-6m tall) is composed of a variety of species. Vines are frequent in both the shrub and tree layers. The ground layer is usually sparse, with grasses making up the majority of the cover. Occurs on granite boulder slopes and on granite slopes. Not a Wetland. (BVG1M: 7b).

3.12.21b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.21. The uneven sparse to mid-dense canopy (5-12m tall) is composed of a variety of mainly dry season deciduous species. *Cochlospermum gillivraei* (kapok), *Canarium australianum* (scrub turpentine), *Terminalia muelleri* (Mueller's damson) and *Acacia polystachya* (a wattle) frequently dominate this layer. *Eucalyptus crebra* (narrow-leaved ironbark) and *Welchiodendron longivalve* (yellow box-penda) are often present as part of the canopy or as emergents (12-15m tall). A very sparse sub-canopy layer (3-7m tall) is sometimes present. The sparse to mid-dense shrub layer (0.5-6m tall) is composed of a variety of species. Vines are frequent in both the shrub and tree layers. The ground layer is usually sparse, with grasses making up the majority of the cover. Occurs on granite boulder slopes and on granite slopes. Not a Wetland. (BVG1M: 7b).

3.12.21x1: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.21. *Manilkara kauki* (wongai), together with *Cochlospermum gillivraei* (kapok), *Acacia polystachya* (a wattle) and *Buchanania arborescens* (native mango), are usually dominant. The canopy varies from 3-14m tall depending on exposure to the prevailing winds. *Eugenia reinwardtiana* (sweet cherry), *Ficus opposita* (sandpaper fig), *Premna serratifolia* (creek premna) and *Abrus precatorius* (gidee gidee) occur commonly in the shrub layer (1-5m tall). The ground layer is usually sparse, with grasses making up the majority of the cover. Occurs on granite slopes on rocky offshore islands. Not a Wetland. (BVG1M: 7b).

**Short description:** Deciduous to semi-deciduous vine thicket to forest on igneous slopes

**Supplementary descriptions:**

**Subregions:** 1, (5), (3), (2), (4), (6)

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Oyala Thumotang NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Cape Melville NP (CYPAL), Muundhi (Jack River) NP (CYPAL), Lizard Island NP, Melsonby (Gaarraay) NP (CYPAL), KULLA (McIlwraith Range) RR, Wuthara Island NP (CYPAL), Ma'alpiku Island NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.21: Habitat for the vulnerable plant species *Ehretia microphylla*, *Dansiea grandiflora*, *Dendrobium bigibbum*, *Dendrobium johannis* and *Leichhardtia paludicola*.  
3.12.21a: The near threatened species *Acacia fleckeri* occurs in this ecosystem.

**Comments:** 3.12.21: Vegetation community 3.12.23b was amalgamated in to this RE. On headlands, grasslands in the RE 3.12.48b may be transitioning into 3.12.21 and in this case may be dominated by *Acacia polystachya* and *Dodonaea polyandra* low woodland. Mainly on Great Dividing Range and rocky offshore islands.

3.12.21a: Mainly on Great Dividing Range and rocky offshore islands.

3.12.21b: Mainly on Great Dividing Range and rocky offshore islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 23000 ha; Remnant 2021 23000 ha

**VM class:** Least concern  
**Biodiversity status:** No concern at present  
**Biodiversity status notes:**

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## Regional ecosystem 3.12.22

**Description:** The closed canopy is dominated by *Millettia pinnata*, *Wodyetia bifurcata* (foxtail palm) and *Canarium australianum* (scrub turpentine). A mid-dense sub-canopy layer (10-12m tall) is dominated by *Wrightia laevis*, *Atalaya sericopetala* and *Millettia pinnata*. A sparse low tree layer (4-6m tall) and sparse shrub layer (0.5-1.5m tall) is usually present. *Mallotus philippensis*, *Memecylon pauciflorum* and *Euphorbia* spp. are frequent in these layers. Herbs are very sparse, with the ground being covered with leaf litter. Occurs amongst granite boulders. Not a Wetland. (BVG1M: 7b).

**Short description:** Deciduous vine thicket +/- *Wodyetia bifurcata* on granite boulders

**Supplementary descriptions:** Neldner and Clarkson (in prep), 127, Stanton & Fell (2005) 27, 51

**Subregions:** 2

**Protected areas:** Cape Melville NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.22: Habitat for vulnerable plant species *Wodyetia bifurcata* (Cape Melville only), *Acmenosperma pringlei* and *Argophyllum verae*.

**Comments:** 3.12.22: Restricted to Cape Melville.

**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 3.12.23

**Description:** *Acacia brassii* (Brass's wattle) dominates the mid-dense but frequently broken canopy (3-7m tall). *Melaleuca viridiflora* (broad-leaved paperbark) and *Welchiodendron longivalve* (yellow box-penda) are usually present as part of the canopy. Deciduous trees such as *Canarium australianum* (scrub turpentine), *Ficus opposita* (sandpaper fig) and *Margaritaria dubium-traceyi* may also be present. A sparse, variable shrub layer (0.8-1m tall) is sometimes present. The ground layer is usually very sparse, although it may be mid-dense in small patches where sufficient soil accumulates. Occurs on acid volcanics. Not a Wetland. (BVG1M: 28c).

Vegetation communities in this regional ecosystem include:

3.12.23a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.23. *Acacia brassii* (Brass's wattle) dominates the mid-dense but frequently broken canopy (3-7m tall). *Melaleuca viridiflora* (broad-leaved paperbark) and *Welchiodendron longivalve* (yellow box-penda) are usually present as part of the canopy. Deciduous trees such as *Canarium australianum* (scrub turpentine), *Ficus opposita* (sandpaper fig) and *Margaritaria dubium-traceyi* may also be present. A sparse, variable shrub layer (0.8-1m tall) is sometimes present. The ground layer is usually very sparse, although it may be mid-dense in small patches where sufficient soil accumulates. Occurs on acid volcanics. Not a Wetland. (BVG1M: 28c).

3.12.23b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.21. *Manilkara kauki* (Wongai plum) dominates the dense uneven canopy (6-15m tall). *Mimusops elengi* (tanjong), *Terminalia arenicola*, *T. muelleri* (Mueller's damson) and *Canarium australianum* (scrub turpentine) may frequently be codominant canopy trees. *Erythrina variegata* (coral tree) dominates the canopy at a few sites. *Drypetes deplanchei*, *Eugenia reinwardtiana*, *Exocarpos latifolius* and *Diospyros maritima* may be present as sub-canopy trees (2-10m tall). A variable shrub layer (1-6m tall) is usually present with *Premna serratifolia* and the vine *Abrus precatorius* frequently occurring. The ground layer is very sparse and composed of a variable mix of herb species. Restricted to hills on mainland islands in the Great Barrier Reef. Not a Wetland. (BVG1M: 2c).

**Short description:** *Acacia brassii* low open forest on igneous hills

**Supplementary descriptions:**

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 3.12.23: Potential habitat for NCA listed species: *Psydrax reticulata*.

**Comments:** 3.12.23: This includes shrublands of *Acacia* sp. on the exposed peaks of Adolphus Island. Torres Strait islands.

3.12.23a: Northern ranges and continental Torres Strait islands.

3.12.23b: This vegetation community has moved to 3.12.21x1. Great Barrier Reef Islands.

**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 3.12.24

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.39a. *Corymbia stockeri* and *Eucalyptus crebra* (narrow-leaved ironbark) form an even but discontinuous canopy (6-8m tall). *E. brassiana* (Cape York redgum) is usually present but generally occurs at low densities. *Eucalyptus mediocris* (mahogany) occurred in the canopy at Cape Bedford. There are two very sparse layers of shrubs and young trees; one 2-4m tall dominated by young *Eucalyptus* spp., and the other 0.5-1m tall dominated by *Acacia calyculata*, *Dodonaea lanceolata* var. *subsessilifolia*, *Erythrophleum chlorostachys* (Cooktown ironwood), *Jacksonia thesioides* and *Xanthorrhoea johnsonii* (grass-tree). The ground layer is very sparse and dominated by graminoids. Most of the soil surface is covered with leaf litter or exposed rock. Occurs Melville Range and headlands. Not a Wetland. (BVG1M: 13a).

**Short description:** *Corymbia stockeri* +/- *Eucalyptus crebra* low open forest on granite ranges and headlands

**Supplementary descriptions:** Neldner and Clarkson (in prep), 136

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.24: The height of the canopy is frequently determined by exposure to prevailing south-easterly winds. In very rocky areas, a dwarf open heath of *Allocasuarina littoralis*, *Grevillea pteridifolia*, *Hibbertia oblongata* and *Jacksonia thesioides* forms, while in deeper gullies, *Eucalyptus brassiana* and *Acacia leptocarpa* become prominent. In sheltered, more mesic positions, particularly gullies, *Erythrophleum chlorostachys* forms a prominent component of the canopy. *Lophostemon suaveolens* and *Allocasuarina littoralis* may also be present in the canopy, and *Corymbia tessellaris* is sometimes present as an emergent tree (10m tall). A denser shrub layer (2-4m tall, 20% PFC) is frequently present. *Buchanania arborescens*, *Canarium australium* and *Schefflera actinophylla* occur in some gullies. Occurs on Melville Range and coastal headlands in south of bioregion.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.12.25

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.39b. *Lophostemon suaveolens* (swamp mahogany) dominates the mid-dense canopy (9-11m tall). *Eucalyptus crebra* (narrow-leaved ironbark) and *Acacia flavescens* (powder puff wattle) are codominant. The shrub layer is mid-dense and ranges from 0.5 to 2.5 metres tall. *Endiandra glauca* (coach walnut) dominates this layer, with *Litsea breviumbellata* and *Myrsine variabilis* also occurring at high densities. The ground layer is very sparse, with the soil surface covered in leaf litter. Restricted to upper slopes of the Altanmoui Range. Not a Wetland. (BVG1M: 28e).

**Short description:** *Lophostemon suaveolens* and *Eucalyptus crebra* low open forest on granite

**Supplementary descriptions:** Neldner and Clarkson (in prep), 137

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.25: Occurs on the Altanmoui Range.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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## Regional ecosystem 3.12.26

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as either 3.12.45 or 3.12.47. Woodland to low open woodland of *Melaleuca viridiflora* (broad-leaved paperbark) +/- *Neofabricia myrtifolia* (yellow teatree) +/- *Asteromyrtus* spp. Emergent *Corymbia clarksoniana* (Clarkson's bloodwood) or *Corymbia nesophila* (Melville Island bloodwood) may also occur. A sparse sub-canopy layer may be present as is a very sparse to sparse shrub layer. Occurs on granite hills and ranges. Not a Wetland. (BVG1M: 28c).

Vegetation communities in this regional ecosystem include:

3.12.26a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.47. *Melaleuca viridiflora*, (broad-leaved teatree) together with *Neofabricia myrtifolia* (yellow teatree), *Allocasuarina littoralis* (black sheoak), *Asteromyrtus brassii* and sometimes *Acacia brassii* (Brass's wattle) dominate the sparse canopy (4-12m tall). *Corymbia nesophila* (Melville Island bloodwood) and less frequently *Eucalyptus tetradonta* (Darwin stringybark) are present as emergent trees (9-16m tall). The same species dominate the sparse low tree layer (2-5m tall). A sparse shrub layer (0.5-3m tall) is present, with *Acacia calyculata*, *Persoonia falcata* (geebung), *Hibbertia banksii* forma *banksii*, *Melaleuca viridiflora*, *Asteromyrtus lysicephala* (back to front bush) and *Choriceras tricornis* (Cape Choriceras) occurring at the highest densities. The ground layer is sparse, and frequently dominated by *Xanthorrhoea johnsonii* (grass tree). Commonly encountered graminoids include *Eriachne* spp. (wanderrie grasses), *Schoenus sparteus* and *Cleistochloa* spp. Occurs on granite ranges. Not a Wetland. (BVG1M: 28c).

3.12.26b: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.45. *Melaleuca viridiflora* (broad-leaved teatree) dominates the sparse canopy (5-11m tall). Emergent trees of *Corymbia clarksoniana* (Clarkson's bloodwood) (7-23m tall) are sometimes present. Scattered low trees (2-5m tall) such as *Acacia* spp. (wattles), *Asteromyrtus symphyocarpa* (liniment tree) and *Banksia dentata* (tropical banksia) may be present and a very sparse layer of shrubs (0.3-2m tall) may sometimes be present. The ground layer is sparse to dense and dominated by graminoids. *Schizachyrium* spp. (fire grass), *Scleria* spp. (milk drop sedge), *Fimbristylis* spp., *Eremochloa bimaculata* (poverty grass), *Aristida dominii* (three-awned speargrass) and *Schoenus sparteus* are some of the frequent species in this layer. Occurs on granite ranges. Not a Wetland. (BVG1M: 28c).

3.12.26c: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.45. *Melaleuca viridiflora* (broad-leaved teatree) dominates a very sparse canopy (4-14m tall) with scattered emergent *Corymbia clarksoniana* (Clarkson's bloodwood) (8-18m tall) often present. Other *Corymbia* spp. or *Eucalyptus* spp. occur very occasionally as emergent trees. A very sparse sub-canopy tree layer (2-9m tall) is present at most sites with *Melaleuca viridiflora* and *Petalostigma pubescens* (quinine) occurring at the greatest densities. A very sparse shrub layer (<0.5 m) dominated by *M. viridiflora* juveniles is present at most sites. The ground layer is sparse to mid-dense and dominated by grasses or sedges in wetter parts. *Schizachyrium* spp. (fire grass), *Aristida* spp. (three-awned spear grasses), *Eriachne* spp. (wanderrie grasses) and *Eremochloa bimaculata* (poverty grass) are common dominant species in this layer. Occurs on slopes of granite hills. Not a Wetland. (BVG1M: 28c).

3.12.26x1: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.12.47. *Asteromyrtus lysicephala* (back to front bush) and *Choriceras tricornis* dominate the sparse canopy (0.5-1.5m tall). *Jacksonia thesioides* and *Melaleuca viridiflora* (broad-leaved paperbark) are subdominant shrubs. Widely scattered *M. viridiflora* and *Grevillea* spp. emergent trees (4-6m tall) are sometimes present. The ground layer is very sparse with *Schoenus sparteus* the most frequent herb. Occurs on granite hills. Not a Wetland. (BVG1M: 29b).

3.12.26x2: [RE not in use]<sup>2</sup>: This regional ecosystem is not mapped. *Melaleuca viridiflora* (broad-leaved paperbark) together with *Asteromyrtus symphyocarpa* (liniment tree) dominate the sparse canopy (4-10m tall). *Corymbia novoguineensis* is present as part of the canopy or as an emergent tree (6-10m tall) in the Torres Strait islands. Scattered *Banksia dentata* (tropical banksia), *Livistona muelleri*, *Xylomelum scottianum* and *Acacia* spp. are present as sub-canopy trees. A sparse shrub layer (0.5-3m tall) is present, with mid-dense stands of *Asteromyrtus symphyocarpa* occurring in some areas. The ground layer is sparse to mid-dense, and dominated by *Dapsilanthus ramosus* in some areas. *Eriachne trisetata*, *Schoenus sparteus* and *Heteropogon triticeus* are consistently present graminoids. Occurs on granite hills on islands. Not a Wetland. (BVG1M: 28c).

**Short description:** *Melaleuca viridiflora* +/- *Neofabricia myrtifolia* +/- *Petalostigma pubescens* on low woodland on granitic ranges

**Supplementary descriptions:**

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.26: West of Lockhart River and on granite hills on Torres Strait islands.  
3.12.26a: West of Lockhart River.  
3.12.26b: West of Lockhart River.  
3.12.26c: Granite hills on Torres St. Islands.  
3.12.26x1: West of Lockhart River.  
3.12.26x2: Offshore islands.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.27

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.43. *Melaleuca viridiflora* (broad-leaved paperbark), together with *Welchiodendron longivalve* (yellow box-penda), dominates the sparse canopy (4-8m tall). *Acacia brassii* (Brass's wattle), *Euroschinus falcatus* var. *falcatus* and *Neofabricia myrtifolia* (yellow teatree) are other frequent low trees. A sparse shrub layer (0.5-2m tall) is present with *Alyxia spicata*, *Indigofera pratensis*, *Petalostigma pubescens* (quinine) and *Xanthorrhoea johnsonii* (grass-tree) dominant in some areas. The ground layer is sparse and dominated by graminoids. *Eulalia mackinlayi*, *Eremochloa bimaculata* and *Cleistochloa sclerachne* are locally dominant. Occurs on ridge crests. Not a Wetland. (BVG1M: 28c).

**Short description:** *Welchiodendron longivalve* and *Melaleuca viridiflora* low woodland on granite ridge crests

**Supplementary descriptions:** Neldner and Clarkson (in prep), 148

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.27: Iron Range area.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

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### Regional ecosystem 3.12.28

**Description:** Tall shrubland to open scrub of *Leptospermum purpurascens* (purple stemmed turkey bush) +/- *Melaleuca viridiflora* (broad-leaved teatree) +/- *Acacia brassii* +/- *Psydrax* spp. +/- *Shonia tristigma*. *A. brassii* and *M. viridiflora* emergents may also be present. A very sparse to sparse lower shrublayer contains similar species +/- *Leucopogon yorkensis*. The groundlayer is commonly rocky but a very sparse groundcover may include *Schizachyrium* spp., *Cleistochloa* spp. or *Schoenus sparteus*. Often occurs on or near pavements in granite hills. Not a Wetland. (BVG1M: 28c).

**Short description:** *Leptospermum purpurascens* tall shrubland on igneous hills  
**Supplementary descriptions:** Neldner and Clarkson (in prep), 163  
**Subregions:** 1, (2), (4)  
**Protected areas:** Kutini-Payamu (Iron Range) NP (CYPAL), Cape Melville NP (CYPAL)  
**Extent in reserves:** Medium  
**Wetland:** Not a Wetland  
**Special values:** 3.12.28: Habitat for *Leptospermum purpurascens* that is endemic to this bioregion, and dominates the biomass of this ecosystem.  
**Comments:** 3.12.28: Occurs on the western edge of Iron Range.  
**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 3.12.29

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.48a. *Heteropogon triticeus* (giant speargrass) and *Cymbopogon bombycinus* (lemon-scented grass) dominate the mid-dense to dense ground layer (0.3-1.0m tall), with grass inflorescences to 2m tall). *Sarga plumosum* (plume sorghum) and *Heteropogon contortus* (black speargrass) may form minor components of the grass biomass. *Themeda triandra* (kangaroo grass) is often the dominant species in more wind-exposed locations. *Cassytha filiformis*, *Evolvulus alsinoides* and *Wollastonia biflora* are the most frequent and abundant forbs. Low emergent shrubs (1-6m tall) are rarely present. The high accumulation of dry plant material covers the land surface. Occurs on granite slopes. Not a Wetland. (BVG1M: 32b).

**Short description:** *Heteropogon triticeus* +/- *Sarga plumosum* closed tussock grassland on continental islands  
**Supplementary descriptions:** Neldner and Clarkson (in prep), 182b; Stanton, Fell & Gooding (2008), G17c, GD17c, MG17c, R17c, G12a  
**Subregions:**  
**Protected areas:**  
**Extent in reserves:**  
**Wetland:** Not a Wetland  
**Special values:**  
**Comments:** 3.12.29: Restricted to the rocky continental islands off the eastern and northern coasts. Increased fire frequency could alter the composition of these restricted grasslands. On Dauan Island fire resistant *Livistona muelleri* has formed a sparse emergent layer in some areas where other vine forest species have retreated.  
**Estimated extent:**<sup>1</sup>  
**VM class:** Of concern  
**Biodiversity status:** Of concern  
**Biodiversity status notes:**

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### Regional ecosystem 3.12.30

**Description:** Closed tussock grassland of *Imperata cylindrica* (blady grass) +/- *Mnesithea rottboellioides* (northern cane grass) +/- *Heteropogon contortus* (black spear grass) +/- *Cymbopogon refractus* (barbed wire grass). Occurs on steep granite hills and crests. Not a Wetland. (BVG1M: 32b).

**Short description:** *Imperata cylindrica* +/- *Heteropogon contortus* +/- *Mnesithea rottboellioides* closed tussock grassland on steep slopes of igneous hills

**Supplementary descriptions:** Neldner and Clarkson (in prep), 182a; Stanton, Fell & Gooding (2008), G17f

**Subregions:** 1, 3, (6)

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Oyala Thumotang NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.30: In the TSI occurs in a complex with *Welchidendron longivalve* closed forest communities (3.12.4). Fire dependent system. Occurs mainly in the northern McIlwraith Range, but also near Temple Bay and on some Torres Strait Islands. Can contain the exotic grass species *Rottboellia cochinchinensis*\*.

**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 3.12.31

**Description:** [RE not in use]<sup>2</sup>: This regional ecosystem is now mapped as 3.12.48b. *Themeda triandra* (kangaroo grass) dominates the mid-dense ground layer (10-60cm tall), which varies in height depending on exposure to the prevailing winds. *Heteropogon contortus* (black speargrass), *Cassytha filiformis* and *Zornia muriculata* are frequently present, but contribute only a small proportion of the biomass. Scattered shrubs may be present, but are generally windsheared and do not emerge much above the ground layer. Restricted to rocky headlands and islands. The lithology is predominantly acid volcanic rocks, but it may also occur on metamorphics and sandstones. Not a Wetland. (BVG1M: 29a).

Vegetation communities in this regional ecosystem include:

3.12.31x1: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.12.47. The plants making up the sparse to mid-dense, even canopy (10-50cm tall) are severely windsheared. In sheltered positions, e.g. between rocks, the shrubs may reach 1m in height. A variety of species make up the canopy and the dominance may vary with locality. *Asteromyrtus lysicephala* (back to front bush), *Grevillea pteridifolia* (toothbrush grevillea), *Melaleuca viridiflora* (broad-leaved paperbark) and *Neofabricia myrtifolia* (yellow teatree) usually occur at the highest densities, with *Styphelia ruscifolia* locally dominant. Although in many areas, the canopy has a PFC of greater than 70%, the large amount of outcropping rock reduces the overall PFC to about 50%. The ground layer is very sparse and dominated by graminoids. *Schoenus sparteus* is the most frequent graminoid. Occurs on granite headlands. Not a Wetland. (BVG1M: 29a).

3.12.31x1a: [RE not in use]<sup>2</sup>: This vegetation community is now mapped as 3.12.43. Shrubland to dwarf open shrubland (0.5-1.5m) of *Melaleuca viridiflora* (broad-leaved paperbark) and *Welchiodendron longivalve* (yellow box-penda) +/- *Asteromyrtus brassii* +/- *Acacia* spp. +/- *Cochlospermum gillivraei* (kapok) +/- *Parinari nonda* (nonda plum). *Lithomyrtus retusa* is often prominent in a lower shrub layer and the sparse ground cover can contain a range of grass and sedge spp. on the infertile, skeletal soil. Occurs on rhyolite headlands on islands. Not a Wetland. (BVG1M: 29a).

3.12.31x2a: [RE not in use]<sup>2</sup>: This proposed new vegetation community now mapped as 3.12.47. A variety of dwarf shrubs (10-60cm tall) dominate this regional ecosystem, with *Acacia humifusa*, *Lithomyrtus obtusa*, *Grevillea pteridifolia* (toothbrush grevillea), *Neoroepera banksii*, *Petalostigma pubescens* (quinine) and *Jacksonia thesioides*, the most frequent. Occasional taller shrubs (1-2m) may be present in sheltered positions. The ground layer is frequently indistinct from the dwarf shrub layer. The dominant grasses are *Eremochloa bimaculata*, *Heteropogon triticeus* (giant speargrass) and *Sarga plumosum* (plume sorghum). Occurs on volcanic headlands and continental islands. Not a Wetland. (BVG1M: 29a).

3.12.31x2b: [RE not in use]<sup>2</sup>: This proposed new vegetation community now mapped as 3.7.6x2. A variety of dwarf shrubs (10-60cm tall) dominate this regional ecosystem, with *Acacia humifusa*, *Lithomyrtus obtusa*, *Grevillea pteridifolia* (toothbrush grevillea), *Neoroepera banksii*, *Petalostigma pubescens* (quinine) and *Jacksonia thesioides*, the most frequent. Occasional taller shrubs (1-2m) may be present in sheltered positions. The ground layer is frequently indistinct from the dwarf shrub layer. The dominant grasses are *Eremochloa bimaculata*, *Heteropogon triticeus* (giant speargrass) and *Sarga plumosum* (plume sorghum). Occurs on laterite headlands. Not a Wetland. (BVG1M: 29a).

**Short description:** *Themeda triandra* tussock grassland on headlands and islands on acid volcanic rocks

**Supplementary descriptions:** Neldner and Clarkson (in prep), 189, 189b

**Subregions:**

**Protected areas:**

**Extent in reserves:**

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.31: A variant (vegetation unit 189B) occurs on Lizard Island and was described by Byrnes et al. (1977). *Themeda triandra* dominates the grassland, with *Arundinella nepalensis* codominant in the valleys.  
3.12.31x1: Cape Weymouth.  
3.12.31x1a: This proposed new vegetation community now mapped as 3.12.43a.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

## Regional ecosystem 3.12.32

**Description:** Schizachyrium fragile grassland usually with Rhynchosia spp., Aristida sp., Ectrosia sp., Eriachne sp. and, Fimbristylis spp. Spermacoce sp., Chamaecrista mimosoides, Polycarpaea spirostylis are common forbs. Occasional low trees and shrubs may be present. Restricted to rocky ranges and rock pavements, usually occurring on granitic rocks, but also on sandstone. Not a Wetland. (BVG1M: 32a).

**Short description:** Schizachyrium spp. +/- Rhynchosia spp. grasslands on granite hills and rock pavements

**Supplementary descriptions:** Neldner and Clarkson (in prep), 189c

**Subregions:** 1

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.32: Restricted to granite low hills south of Coen.

**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 3.12.33

**Description:** Granite boulders covered with blue-green algae and interspersed with vine thicket. Granite boulderfields. Not a Wetland. (BVG1M: 29b).

Vegetation communities in this regional ecosystem include:

3.12.33a: The majority of this unit is covered with a mass of granite boulders up to 700 metres tall. These grey boulders are covered in a layer of black blue green algae. In places between the boulders, individual trees particularly *Ficus* spp. occur. Small patches of deciduous microphyll vine thicket occur on the lower slopes and occasional areas mid-slope. The epiphytic fern *Drynaria quercifolia* may occur on the boulders and the lower branches of the trees. *Dendrobium bigibbum* and *D. discolor* also can occur in these situations. Occurs on granite boulder fields. Not a Wetland. (BVG1M: 29b).

3.12.33b: Open vineland/deciduous shrubland/boulder slope complex. Vine thicket species include *Canarium australianum* (scrub turpentine), *Ficus microcarpa*, *Cochlospermum gillivraei* (kapok) and *Tetrameles nudiflora*. The vine *Aristolochia acuminata* can form sprawling mats and *Drynaria quercifolia*, *Asplenium* spp. and *Cynanchum viminale* subsp. *brunonianum* can occupy sheltered pockets in the ground layer. Pockets of *Pandanus* spp. dominated woodland also occur. Granite talus and boulder slopes. Not a Wetland. (BVG1M: 29b).

**Short description:** Granite boulders covered with blue-green algae and interspersed with vine thicket

**Supplementary descriptions:**

**Subregions:** 2, (3)

**Protected areas:** Cape Melville NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.33: Potential habitat for NCA listed species: *Acmenosperma pringlei*, *Hoya anulata*.  
3.12.33a: The endemic frog *Cophixalus saxatilis*, the gecko *Nactus galgajuga* (Eborac Island gecko), and endemic skink *Carlia scirtetis* are restricted to this ecosystem. Potential habitat for the vulnerable plant species *Acmenosperma pringlei*.  
3.12.33b: Habitat for *Tetrameles nudiflora*, a common PNG species and has a scattered distribution across Cape York and the Torres St islands. Potential habitat for the vulnerable plant species *Acmenosperma pringlei*.

**Comments:** 3.12.33: Occurs on Cape Melville.  
3.12.33a: Occurs at Cape Melville.  
3.12.33b: Mainly on Dauan Island in Torres Strait.

**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 3.12.34

**Description:** Bare rock pavements with small areas of sparse herblands, grasslands or shrublands where there is soil accumulation. A wide variety of species may occur and include *Acacia umbellata*, *Hoya* spp., *Rhynchosia* spp., *Cymbopogon* spp., *Triodia* spp., *Ectrosia* spp., *Fimbristylis* spp., *Cochlospermum gillivraei*, *Canarium australianum* (mango bark), *Psydrax* spp., *Terminalia* spp., and *Carissa ovata* (currant bush). Occurs on bare rock pavements on hills where a little soil accumulates and in the crevices between the rocks or in depressions where a moderate depth of soil has accumulated. Not a Wetland. (BVG1M: 29b).

Vegetation communities in this regional ecosystem include:

3.12.34a: [RE not in use]<sup>2</sup>: This vegetation community now mapped as 3.12.34. This unit consists of bare rock pavements with small areas of sparse herblands composed of ephemeral herbs where a little soil accumulates. In the crevices between the rocks or in depressions where a moderate depth of soil has accumulated, a tall shrubland may develop. This is usually dominated by deciduous species. Occurs on bare rock pavements on hills where a little soil accumulates and in the crevices between the rocks or in depressions where a moderate depth of soil has accumulated. Not a Wetland. (BVG1M: 29b).

3.12.34b: [RE not in use]<sup>2</sup>: This vegetation community now mapped as 3.10.19c. This unit consists of bare rock pavements with small areas of sparse herblands composed of ephemeral herbs where a little soil accumulates. In the crevices between the rocks or in depressions where a moderate depth of soil has accumulated, a tall shrubland may develop. This is usually dominated by deciduous species. Occurs on bare rock pavements on sandstone hills where a little soil accumulates. Not a Wetland. (BVG1M: 29b).

3.12.34c: [RE not in use]<sup>2</sup>: This vegetation community now mapped as 3.12.34. This unit consists of bare rock pavements with small areas of sparse herblands composed of ephemeral herbs where a little soil accumulates. In the crevices between the rocks or in depressions where a moderate depth of soil has accumulated, a tall shrubland usually dominated by deciduous species may develop. These may include *Cochlospermum gillivraei* (kapok), *Canarium australianum* (scrub turpentine), *Terminalia* spp., *Psydrax* spp., and *Carissa ovata*. Rock pavements associated with granite offshore islands. Not a Wetland. (BVG1M: 29b).

**Short description:** Igneous rock pavements associated with mountains and some offshore islands

**Supplementary descriptions:**

**Subregions:** 1, 3, 2, (4), (6)

**Protected areas:** KULLA (McIlwraith Range) NP (CYPAL), Cape Melville NP (CYPAL), Oyala Thumotang NP (CYPAL), Lizard Island NP, Kutini-Payamu (Iron Range) NP (CYPAL), Round Island CP, Ma'alpiku Island NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.34: Potential habitat for NCA listed species: *Acacia armitii*, *Torenia polygonoides*.

**Comments:** 3.12.34: Occurs as a complex of rock pavements (rather than boulder piles of 3.12.33) with shrubland that can include *Acacia umbellata*, *Canarium australianum*, *Psydrax* spp., *Terminalia* spp. and *Carissa ovata* growing in areas where soil accumulates. McIlwraith Range, Iron Range and Altanmoui Range. Torres Strait Islands.

3.12.34a: Iron Range and Altanmoui Range. Also upper reaches of the Archer River.

3.12.34b: Clack Island, Flinders Group.

3.12.34c: Concentrated around islands in the Torres Strait.

**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 3.12.35

**Description:** Semi-deciduous mesophyll/notophyll vine forest commonly containing *Bombax ceiba* (kapok) and *Canarium australianum* (scrub turpentine). Occurs on granite footslopes and knolls. Not a Wetland. (BVG1M: 2b).

Vegetation communities in this regional ecosystem include:

3.12.35a: Semi-deciduous notophyll vine forest (20-25m) and occasional thicket with *Bombax ceiba*, *Canarium australianum* (scrub turpentine), *Terminalia* spp. and *Acacia polystachya* +/- *Erythrina variegata* (bats wing coral tree) +/- *Buchanania arborescens* +/- *Manilkara kauki* +/- *Gyrocarpus americanus* (helicopter tree). A sub-canopy (12-18m) can contain *Chionanthus ramiflorus* (native olive), *Drypetes deplanchei* and *Atalaya sericopetala*. The mixed shrub layer can include sub-canopy species and *Diospyros* spp. Footslopes on igneous volcanic and plutonic rocks. Not a Wetland. (BVG1M: 2b).

3.12.35b: Semi deciduous vine forest (18-25m) of *Tetrameles nudiflora*, *Canarium australianum* (scrub turpentine), *Ficus* spp., *Bombax ceiba* (kapok) and *Alstonia spectabilis* (milkwood). The sub-canopy often contains *Gossia floribunda* and hemi-epiphytes including *Asplenium nidus* and *Drynaria quercifolia* are common. Occurs on igneous slopes. Not a Wetland. (BVG1M: 2b).

3.12.35c: Semi deciduous notophyll vine forest (23-35m) including *Maranthes corymbosa*, *Buchanania arborescens*, *Cryptocarya* spp., *Acacia auriculiformis*, *Syzygium forte* subsp. *forte*, *Barringtonia calypttrata*, *Bombax ceiba* and *Canarium australianum* (scrub turpentine). The sub-canopy contains canopy species +/- *Endiandra glauca*, *Polyscias elegans* (celerywood) and *Garcinia warrenii* (native mangosteen). The well developed evergreen shrub layer can include *Dracaena angustifolia*, *Drypetes deplanchei* and *Morinda citrifolia*. Occurs on footslopes on metagranite. Not a Wetland. (BVG1M: 2b).

3.12.35d: Tall semi deciduous vine forest (25-40m) with *Bombax ceiba* (kapok), *Berrya javanica*, *Antiaris toxicaria* var. *macrophylla*, *Garuga floribunda* var. *floribunda*, *Canarium australianum* (scrub turpentine) +/- *Albizia lebbek* +/- *Syzygium bamagense* +/- *Maranthes corymbosa*. The shrub layer is often very open. Occurs on diorite knolls on a broad alluvial plain. Not a Wetland. (BVG1M: 2b).

3.12.35e: Semi deciduous vine forest (10-28m) with *Alstonia actinophylla* (milkwood), *Sterculia quadrifida*, *Canarium australianum* (scrub turpentine), *Cleistanthus peninsularis*, *Terminalia subacroptera*, *Antiaris toxicaria* var. *macrophylla*, *Falcataria toona* (acacia cedar) +/- *Zanthoxylum rhetsa*. *Alstonia actinophylla* is often emergent. Occurs on diorite boulder slopes. Not a Wetland. (BVG1M: 2b).

3.12.35f: *Acacia auriculiformis* +/- *Terminalia subacroptera* +/- *Antiaris toxicaria* var. *macrophylla* +/- *Bombax ceiba* open forest or woodland (12 -23m) or occasional shrubland. The sub-canopy is relatively open. The shrub layer contains a diverse range of species. Occurs on granite hillslopes. Not a Wetland. (BVG1M: 5d).

**Short description:** Semi-deciduous mesophyll and/or notophyll vine forest on igneous slopes of the Torres Strait Sub-region

**Supplementary descriptions:**

**Subregions:** 3

**Protected areas:** Round Island CP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 3.12.35: Potential habitat for NCA listed species: *Arenga australasica*, *Cheilocostus potierae*, *Cissus aristata*, *Dischidia littoralis*, *Hoya anulata*, *Psydrax reticulata*.  
3.12.35b: Habitat for the vulnerable plant species *Dischidia littoralis*. Habitat for a wide range of epiphytic plants including *Dendrobium litorale* and *Bulbophyllum* spp. Also unusual location for *Tetrameles nudiflora* (usually on flooded lowland terraces). Potential habitat for the endangered plant species *Cheilocostus potierae*.  
3.12.35c: Potential habitat for the endangered plant species *Cheilocostus potierae* and vulnerable plant species *Cissus aristata*.

**Comments:** 3.12.35: Confined to several islands within the Torres Strait.  
 3.12.35a: Inner island group of Torres St. Islands.  
 3.12.35b: Confined to Dauan Island, Torres Strait. *Mangifera indica* (mango) common in this community.  
 3.12.35c: Restricted to Moa Island, Torres St. *Mangifera indica* (mango) often found on community margins.  
 3.12.35d: Restricted to Muralag Island, Torres St.  
 3.12.35e: Restricted to Hammond Island, Torres St.  
 3.12.35f: Generally restricted to Lama and Gebar Islands, Torres St. These *Acacia* dominant communities are probably a product of continuous historical disturbance from wind, fire and human activity. They include *Acacia polystachya* low open forest on wind-swept ridgelines often associated with the vegetation community 3.12.1x1e on Hammond Island.

**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 3.12.36

**Description:** Well-formed evergreen mesophyll/notophyll vine forest. These can be reduced to lower vine thickets on more wind exposed parts. Occurs on slopes of granite peaks. Not a Wetland. (BVG1M: 1a).

Vegetation communities in this regional ecosystem include:

3.12.36a: Evergreen mesophyll/notophyll vine forest (23-35m) dominated by *Myristica insipida*, *Dysoxylum latifolium*, *Cryptocarya cunninghamii*, *Sterculia shillinglawii* and *Calophyllum sil.* Subdominants in the canopy include *Maranthes corymbosa*, *Semecarpus australiensis*, *Mimusops elengi* (tanjong) and *Buchanania arborescens*. There is a dense and diverse sub-canopy and shrub layer. Occurs on footslopes and upper slopes of granite peaks. Not a Wetland. (BVG1M: 1a).

3.12.36b: Windswept notophyll vine thicket (6-8m) which includes *Calophyllum sil.*, *Syzygium branderhorstii*, *Diospyros hebecarpa*, *Heptapleurum actinophyllum*, *Podocarpus grayae* and *Licuala ramsayi*. The sub-canopy and shrub layers are sparse. Occurs on upper slopes on granite and rhyolite. Not a Wetland. (BVG1M: 1a).

3.12.36x3: [RE not in use]<sup>2</sup>: This proposed new regional ecosystem is now mapped as 3.12.44. Low *Melaleuca citrolens* (scrub teatree) and often also *M. viridiflora* (broad-leaved teatree) and *M. foliolosa* (scale-leaved teatree) dominate the sparse canopy layer (3-9m tall). In places, these species occur as multi-stemmed shrubs rather than single-stemmed low trees. A sparse shrub layer is sometimes present. The short, sparse ground layer is dominated by annual graminoids with *Fimbristylis* spp., *Schizachyrium* spp. (fire grass) and *Aristida* spp. (three-awned speargrass) being the most commonly encountered taxa. Occurs on slopes of granite hills. Not a Wetland. (BVG1M: 21b).

**Short description:** Evergreen to complex evergreen mesophyll to notophyll vine forest and thicket on mountain ranges of Torres Strait Islands

**Supplementary descriptions:**

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:** 3.12.36: Habitat for a number of endangered, vulnerable and near threatened species including *Cadetia wariana*, *Cheilocostus potierae*, *Dischidia littoralis* and *Psydrax reticulata*, as well as species at limits of their range.

3.12.36a: Habitat for the endangered plant species *Alectryon repandodentatus*, the vulnerable plant species *Arenga australasica*, *Dischidia littoralis* and the near threatened plant species *Sterculia shillinglawii* subsp. *shillinglawii* as well containing many species at the their geographical range in Australian.

3.12.36b: Habitat for the near threatened species *Syzygium buettnerianum*.

**Comments:** 3.12.36: Restricted to more mountainous Torres Strait islands.  
3.12.36a: Restricted to more mountainous Torres Strait islands. The exotic species *Mangifera indica* (mango) is a commonly found canopy species in the variant on Dauan Island.  
3.12.36b: Torres Strait Islands.

**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 3.12.37

**Description:** Woodland to open forest of *Eucalyptus platyphylla* (poplar gum) +/- *Corymbia stockeri* (gum topped bloodwood)+/- *C. nesophila* (Melville Island bloodwood) +/- *C. clarksoniana* (Clarkson's bloodwood). In some areas *C. tessellaris* (Moreton Bay ash) can occur as a subdominant. A shrub layer of *Welchiodendron longivalve* (yellow box penda) and *Acacia* spp. +/- *Cochlospermum gillivraei* (kapok) may occur. *Themeda triandra* (kangaroo grass) is commonly found interspersed with rock pavement and talus. Occurs on coastal headlands and footslopes of inner Torres Strait Islands. Not a Wetland. (BVG1M: 9b).

**Short description:** *Eucalyptus platyphylla* +/- *Corymbia* spp. woodland to open forest on coastal igneous headlands and footslopes

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), G5t, R5t, R5u

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.37: *C. stockeri* is likely to be subsp. *stockeri*. Restricted to Horn and Muralag Islands in the Torres Strait.

**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 3.12.38

**Description:** Low woodland of *Corymbia clarksoniana* (Clarkson's bloodwood) and/or *C. nesophila* (Melville Island bloodwood) and/or *C. stockeri* (gum topped bloodwood) +/- *Melaleuca viridiflora* (broad-leaved paperbark) +/- *Welchiodendron longivalve* (yellow box penda) +/- *Asteromyrtus brassii* +/- *Acacia leptocarpa*. A lower shrub layer can occur and often includes upper layer species +/- *Petalostigma pubescens* (quinine). This community can also occur as a tall shrubland of *Melaleuca viridiflora* +/- *C. clarksoniana* +/- *A. leptocarpa* +/- *P. pubescens* +/- *Asteromyrtus brassii* with *Corymbia* spp. emergents or a monotypic *M. viridiflora* tall shrubland. Occurs on acid volcanic hills. Not a Wetland. (BVG1M: 9c).

**Short description:** *Corymbia clarksoniana* and/or *C. nesophila* and/or *C. stockeri* low woodland on acid volcanic hills

**Supplementary descriptions:** Stanton, Fell & Gooding (2008), MG5d, R13a, R14p, R5d.

**Subregions:** 3

**Protected areas:**

**Extent in reserves:** No representation

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.38: *C. stockeri* is likely to be subsp. *stockeri*. Torres Strait Islands.

**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 3.12.39

**Description:** Low woodland to low open forest of *Eucalyptus crebra* (narrow-leaved ironbark) +/- *Corymbia hylandii* (Hyland's bloodwood) or low open forest of *Lophostemon suaveolens* (swamp mahogany) and *E. crebra*. Occurs on skeletal soils on gullies and foothills of granite hills. Not a Wetland. (BVG1M: 13a).

Vegetation communities in this regional ecosystem include:

3.12.39a: Low woodland to low open forest of *Eucalyptus crebra* (narrow-leaved ironbark) +/- *Corymbia hylandii* (Hyland's bloodwood). Deciduous vine thicket species are often scattered through the canopy and and/or a very sparse subcanopy and can include *Terminalia subacrotia*, *Cochlospermum gillivraei* (kapok), *Sterculia quadrifida* and *Bombax ceiba*. The very sparse to mid-dense shrub layer can also contain a range of deciduous vine thicket species including *Diospyros* spp., *Micromelum minutum*, *Psychotria* spp., *Manilkara kauki* and *Psydrax* spp. as well as *Grevillea parallela* and *Acacia disparrima*. The very sparse to mid-dense grassy groundlayer often includes *Arundinella setosa* and *Themeda triandra* (kangaroo grass) +/- *Cymbopogon ambiguus* +/- *Mnesithea rottboelliioides* (northern cane grass). Occurs on skeletal soils on gullies and footslopes of granite hills. Not a Wetland. (BVG1M: 13a).

3.12.39b: Low open forest of *Lophostemon suaveolens* (swamp mahogany) with *Eucalyptus crebra* (narrow-leaved ironbark) and *Acacia flavescens* (red wattle) subdominant. *A. flavescens* can be common in a sparse subcanopy. Rainforest species including *Endiandra glauca* (brown walnut), *Myrsine variabilis*, *Litsea breviumbellata* and *Rhodamnia* spp. Often occur in a mid-dense shrublayer. The very sparse groundlayer can have *Cyperus pedunculatus* and *Gahnia aspera*. Occurs on upper slopes of granite ranges. Not a Wetland. (BVG1M: 28e).

**Short description:** *Eucalyptus crebra* +/- *Corymbia hylandii* low woodland to low open forest on skeletal soils in gullies and on foothills of granite hills

### Supplementary descriptions:

**Subregions:** 2, (4)

**Protected areas:** Cape Melville NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

### Special values:

**Comments:** 3.12.39: REs 3.12.24, 3.12.25 were amalgamated in to this RE. Occurs on Cape Melville and the Altanmoui Range north of Cooktown.  
3.12.39a: Occurs on Cape Melville.  
3.12.39b: Occurs on the Altanmoui Range north of Cooktown.

**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 3.12.40

**Description:** Open forest of *Corymbia nesophila* (Melville Island bloodwood) often with *Eucalyptus tetrodonta* (Darwin stringybark) co-dominant. The very sparse to sparse subcanopy can contain canopy species +/- *Acacia crassicarpa* (spoon tree) +/- *A. flavescens* (red wattle) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *Grevillea* spp. The sparse to often mid-dense shrublayer contains juvenile canopy species +/- *Neoroepera banksii* +/- *Coelospermum reticulatum* (medicine bush) +/- *Canarium australianum* (mango bark) and a variety of other species. The sparse to mid-dense grassy groundlayer is often dominated by *Heteropogon triticeus* (giant spear grass), and / or *Mnesithea rottboellioides* (northern cane grass). In the Torres Strait *Corymbia stockeri* (gum topped bloodwood) can occur as a co-dominant. Occurs on igneous hills and rises. Not a Wetland. (BVG1M: 14c).

**Short description:** *Corymbia nesophila* +/- *Eucalyptus tetrodonta* open forest on igneous hills and rises

### Supplementary descriptions:

**Subregions:** 1, (2), (5), (6), (3), (4)

**Protected areas:** Kutini-Payamu (Iron Range) NP (CYPAL), Cape Melville NP (CYPAL), Oikola NP (CYPAL), Ngalba-bulal NP (CYPAL)

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:** 3.12.40: Potential habitat for NCA listed species: *Senegalia albizioides*, *Solanum angustum*.

**Comments:** 3.12.40: REs 3.12.12, 3.12.13, vegetation community 3.12.15a and proposed new vegetation community 3.12.15x1b were amalgamated in to this RE. Occurs from Musgrave to Temple Bay on the Coen-Yambo Inlier. Small areas west of Cooktown and on some Torres Strait Islands.

**Estimated extent:**<sup>1</sup> Pre-clearing 37000 ha; Remnant 2021 37000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.41

**Description:** Woodland to low woodland or low open forest of *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia nesophila* (Melville Island bloodwood) +/- *Asteromyrtus brassii* +/- *Melaleuca viridiflora* (broad-leaved teatree) +/- *Neofabricia myrtifolia*. *C. nesophila* and *E. tetrodonta* can also be present as emergents. Heath species are often prominent in the sparse sub-canopy and shrub layers along with *Xanthorrhoea johnsonii* (grass tree), *Choriceras tricornis* (Cape choriceras), *Hibbertia* spp. and *Helicteres semiglabra*. The predominantly sparse grassy layer contains *Schoenus sparteus*, *Eulalia mackinlayi* +/- *Eremochloa bimaculata* +/- *Lomandra* spp. Occurs on the crests of low igneous hills and rises. Not a Wetland. (BVG1M: 14d).

**Short description:** *Eucalyptus tetrodonta* woodland +/- heath species on granite hills and rises

### Supplementary descriptions:

**Subregions:** 1, (4)

**Protected areas:** Kutini-Payamu (Iron Range) NP (CYPAL)

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.41: Vegetation communities 3.12.26a, 3.12.15a (part) and proposed new vegetation community 3.12.15x1c were amalgamated in to this RE. Occurs mainly around Iron Range but also found south of Coen and north of Bamaga.

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

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.42

**Description:** Woodland of *Eucalyptus tetrodonta* (Darwin stringybark) +/- *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *C. stockeri* (gum topped bloodwood). The very sparse to mid-dense subcanopy often includes canopy species +/- *Acacia flavescens* (red wattle) +/- *Parinari nonda* (nonda plum) +/- *Grevillea glauca* (clothespeg Grevillea). The very sparse shrublayer also includes juvenile *Eucalyptus tetrodonta* and mixed shrub species such as *Planchonia careya* (cocky apple), *Persoonia falcata* (geebung) or *Acacia flavescens*. *Schizachyrium* spp. (fire grass) and / or *Heteropogon triticeus* (giant spear grass) dominate the sparse to mid-dense grassy groundlayer +/- *Sarga plumosum* (plume sorghum) +/- *Mnesithea rottboellioides* +/- *Thaumastochloa* spp. Occurs mainly on low to undulating granite hills. Not a Wetland. (BVG1M: 14d).

**Short description:** *Eucalyptus tetrodonta* woodland on low to undulating granite hills

### Supplementary descriptions:

**Subregions:** 1, (5), (2.6), (6), (2), (4), (2.4), (8), (7)

**Protected areas:** Olkola NP (CYPAL), Alwal NP (CYPAL), Oyala Thumotang NP (CYPAL), Kutini-Payamu (Iron Range) NP (CYPAL), Cape Melville NP (CYPAL), Melsonby (Gaarraay) NP (CYPAL), Muundhi (Jack River) NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), KULLA (McIlwraith Range) RR, Olkola (Kurrumbila) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:** 3.12.42: Potential habitat for NCA listed species: *Acacia ommatosperma*.

**Comments:** 3.12.42: RE 3.12.14, proposed new RE 3.12.15x1, 3.12.15x2 and vegetation community 3.12.19b were amalgamated in to this RE. *C.stockeri* is most likely to be subsp. *stockeri*. Occurs along the length of the Coen -Yambo Inlier from Musgrave to Portlands Rds. Also on ranges from north-west of Cooktown.

**Estimated extent:**<sup>1</sup> Pre-clearing 244000 ha; Remnant 2021 244000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.43

**Description:** *Welchiodendron longivalve* (yellow box penda) low woodland commonly with *Acacia brassii*. May occur as a shrubland of *Melaleuca viridiflora* (broad-leaved teatree) and *W. longivalve* on some windswept headlands. Occurs on undulating igneous rises to steep hills. Not a Wetland. (BVG1M: 28c).

Vegetation communities in this regional ecosystem include:

3.12.43a: *Welchiodendron longivalve* (yellow box penda) low woodland to woodland commonly with *Acacia brassii*. *Eucalyptus cullenii* (Cullen's ironbark) and *E. platyphylla* (poplar gum) can occur as co-dominants. Canopy species and occasionally *Bursaria incana* and *Livistona muelleri* (cabbage palm) appear in a very sparse subcanopy. Juvenile *W. longivalve* and *Cochlospermum gillivraei* (kapok) are common in the very sparse to sparse shrublayer along with numerous heath and rainforest species. The sparse to mid-dense grassy groundlayer can include *Heteropogon triticeus* (giant spear grass), *Schizachyrium* spp. (fire grass), *Lomandra* spp. And *Schoenus sparteus*. Occurs on undulating igneous rises to steep hills. Not a Wetland. (BVG1M: 28c).

3.12.43b: *Melaleuca viridiflora* (broad-leaved teatree) and *Welchiodendron longivalve* (yellow box-penda) shrubland to dwarf open shrubland commonly with *Asteromyrtus brassii* and *Lithomyrtus retusa*. Other species that can occur include *Psydrax reticulata*, *Alyxia spicata* (chain fruit), *Acacia brassii*, *Jacksonia thesioides* (broombush), *Corymbia tessellaris* (Moreton Bay ash), *Syzygium suborbiculare* (white apple), *Acacia leptocarpa*, *A. simsii*, *Asteromyrtus symphyocarpa*, *Parinari nonda* (nonda plum), *Cochlospermum gillivraei* (kapok), *Exocarpos latifolius* or *M. stenostachya*. The groundcover is principally stunted shrubs but scattered *Dianella* spp., *Themeda triandra* (kangaroo grass), *Cassytha filiformis* (dodder), *Aristida* spp., *Schoenus* spp., *Thaumastochloa* spp. Or *Alloteropsis semialata* (cockatoo grass) can occur. Restricted to igneous headlands on infertile skeletal soils. Not a Wetland. (BVG1M: 29a).

**Short description:** *Welchiodendron longivalve*, *Acacia brassii* low woodland on igneous hills

**Supplementary descriptions:**

**Subregions:** 3, 1

**Protected areas:** Possession Island NP

**Extent in reserves:** Low

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.43: Occurs near Wolverton and Temple Bay as well as on some Torres Strait Islands. RE 3.12.27 and proposed vegetation community 3.12.31x1a were amalgamated into this RE.

3.12.43a: Occurs near Wolverton and Temple Bay as well as on some Torres Strait Islands.

3.12.43b: Occurs on most continental Torres Strait Islands.

**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 3.12.44

**Description:** Low open woodland of *Melaleuca citrolens* (scrub teatree) +/- *M. foliolosa* (scaly leaved teatree) +/- *Petalostigma banksii* (smooth-leaved quinine) +/- *Eucalyptus cullenii* (Cullen's ironbark). The very sparse to sparse shrublayer often contains *M. citrolens*, *M. viridiflora* (broad-leaved teatree) +/- *P. banksii* +/- *Carissa* spp. (currant bush). The sparse to mid-dense mixed grassy groundlayer is dominated by *Schizachyrium* spp. (fire grass) with *Aristida* spp. (three-awned speargrass), *Eriachne* spp. (wanderrie grasses) and *Rhynchosia* spp. often present. Occurs on low granite hills and rolling rises. Not a Wetland. (BVG1M: 21b).

**Short description:** *Melaleuca citrolens* low open woodland on low granite hills and rolling rises

**Supplementary descriptions:**

**Subregions:** 1, (2.4), (2.6)

**Protected areas:** Oyala Thumotang NP (CYPAL)

**Extent in reserves:** Medium

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.44: Proposed new REs 3.12.10x2 and 3.12.36x3 were amalgamated in to this RE. Occurs on granite ranges from Coen to Palmerville.

**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 3.12.45

**Description:** Low woodland to low open woodland of *Melaleuca viridiflora* (broad-leaved teatree). *Corymbia clarksoniana* (Clarkson's bloodwood), *Eucalyptus leptophleba* (Molloy red box) or *Lophostemon suaveolens* (swamp mahogany) can sometimes occur as sub-dominant. *C. clarksoniana* and *E. tetradonta* (Darwin stringybark) can be present as emergents. Scattered *M. viridiflora* and *Petalostigma banksii* (smooth-leaved quinine) can both appear in a very sparse subcanopy. *M. viridiflora* is also prominent in the very sparse to sparse shrublayer though *Acacia* spp., *Choriceras tricornis* (Cape Choriceras) and *Xanthorrhoea johnsonii* (grass tree) can also be locally dominant. The sparse to mid-dense grassy groundlayer often includes *Eremochloa bimalculata* and *Schoenus sparteus*, though *Heteropogon triticeus* (giant spear grass) and *Schizachyrium* spp. (fire grass) can also be locally dominant. Occurs on steep hills and footslopes. Not a Wetland. (BVG1M: 28c).

**Short description:** *Melaleuca viridiflora* low woodland to low open woodland on steep igneous hills and footslopes

**Supplementary descriptions:**

**Subregions:** 1, (6), (2), (8), (4)

**Protected areas:** Kutini-Payamu (Iron Range) NP (CYPAL), Oyala Thumotang NP (CYPAL), Oikola NP (CYPAL), Cape Melville NP (CYPAL), KULLA (McIlwraith Range) NP (CYPAL), Alwal NP (CYPAL), Oikola (Kurrumbilla) RR 2

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.45: Vegetation communities 3.12.16b, 3.12.26b, 3.12.26c were amalgamated in to this RE. Occurs along the length of the Great Dividing Range from the Hann River up to Portlands Rds.

**Estimated extent:<sup>1</sup>** Pre-clearing 14000 ha; Remnant 2021 14000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.46

**Description:** Shrubland to tall shrubland dominated by *Melaleuca stenostachya* (fibre-barked teatree). Other subcanopy species that may occur include *Asteromyrtus symphyocarpa* (back to front bush), *Melaleuca viridiflora* (broad-leaved teatree), *A. brassii* and *Jacksonia thesioides*. *Eucalyptus tetradonta* (Darwin stringybark), *Corymbia stockeri* (gum topped bloodwood), *E. cullenii* (Cullen's ironbark) and *Welchiodendron longivalve* (yellow box penda) can also be present in a taller shrubland canopy with *E. tetradonta* and *C. stockeri* as emergents. Areas of bare rock or rubble areas are usually common with clumps of grassy ground cover. Occurs on igneous headlands and hills. Not a Wetland. (BVG1M: 28c).

**Short description:** *Melaleuca stenostachya* shrubland on exposed igneous headlands and hills

**Supplementary descriptions:**

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

**Protected areas:** Alwal NP (CYPAL), Oikola NP (CYPAL), Possession Island NP, Round Island CP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.46: This RE was previously mapped as 3.12.16c. Occurs on granite hills between Musgrave Roadhouse and Archer River crossing as well as on some Torres Strait Islands.

**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 3.12.47

**Description:** Low woodland of *Allocasuarina littoralis* (black sheoak), *Asteromyrtus brassii*, *Jacksonia thesioides* (broombush), *Choriceras tricornis* (Cape choriceras) and *Neofabricia myrtifolia* (yellow teatree) to dwarf shrubland of *Melaleuca viridiflora* (broad-leaved teatree) and *Asteromyrtus lysicephala* (back to front bush). Occurs on slopes of rocky igneous hills. Not a Wetland. (BVG1M: 28c).

Vegetation communities in this regional ecosystem include:

3.12.47a: Low woodland to open shrubland of mixed species often including *Allocasuarina littoralis* (black sheoak), *Asteromyrtus brassii*, *Jacksonia thesioides* (broombush), *Choriceras tricornis* (Cape choriceras), *Neofabricia myrtifolia* (yellow teatree) or *Melaleuca viridiflora* (broad-leaved teatree). A sparse sub-shrub layer can include similar species, *Asteromyrtus lysicephala* (back to front bush) or *Xanthorrhoea johnsonii* (grass tree). In some instance the same species will occur as a shorter open heath with scattered *Acacia calyculata* emergents. *Schoenus sparteus* and *Cleistochloa* spp. are most common in the very sparse to sparse groundlayer with *Lomandra* spp. and *Drosera* spp. also present. Occurs on slopes of rocky igneous hills. Not a Wetland. (BVG1M: 28c).

3.12.47b: Dwarf shrubland of *Melaleuca viridiflora* (broad-leaved teatree) and *Asteromyrtus lysicephala* (back to front bush) +/- *Neofabricia myrtifolia* (yellow teatree) +/- *Grevillea pteridifolia* (golden Grevillea). Emergent *Melaleuca* spp. often occur. *Schoenus sparteus* dominates the groundlayer, with the abundance of other sedge species (*Fimbristylis* spp. and *Rhynchospora* spp.), *Drosera* spp. and *Utricularia* spp. Occurs on igneous slopes with impeded drainage. Not a Wetland. (BVG1M: 29b).

**Short description:** Mixed heath species tall shrubland to wetter dwarf shrubland on igneous hills

### Supplementary descriptions:

**Subregions:** 1, (4), (3), (2)

**Protected areas:** Kutini-Payamu (Iron Range) NP (CYPAL), Oyala Thumotang NP (CYPAL), Wuthara Island NP (CYPAL), Possession Island NP, Lizard Island NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.47: Proposed new REs 3.12.26x1, 3.12.31x1, vegetation communities 3.12.16a, 3.12.26a and proposed new vegetation community 3.12.31x2a were amalgamated in to this RE. Occurs mainly west of the Iron Range but also some areas near Coen. The structural and floristic variation in this Regional Ecosystem is due to regular burning.  
3.12.47a: Occurs mainly west of the Iron Range but also some areas near Coen.  
3.12.47b: Occurs on the Tozer Range.

**Estimated extent:**<sup>1</sup> Pre-clearing 35000 ha; Remnant 2021 35000 ha

**VM class:** Least concern

**Biodiversity status:** No concern at present

**Biodiversity status notes:**

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## Regional ecosystem 3.12.48

**Description:** Closed to open tussock grassland of *Heteropogon triticeus* (giant spear grass) +/- *Sarga plumosum* (plume sorghum) +/- *Lepturus repens* +/- *Lomandra* spp. Twining vines species such as *Cassytha filiformis*, *Evolvulus alsinoides*, and *Ipomoea brassii* can be common. Scattered emergent shrubs can occur and include *Alyxia spicata* (chain fruit), *Lithomyrtus obtusa*, *Syzygium suborbiculare* and *Grevillea glauca* (clothespeg Grevillea). Occurs on the crests of igneous hills. Not a Wetland. (BVG1M: 32b).

Vegetation communities in this regional ecosystem include:

3.12.48a: Closed to open tussock grassland of *Heteropogon triticeus* (giant spear grass) +/- *Mnesithea rottboellioides* (northern cane grass) +/- *Sarga plumosum* (plume sorghum) +/- *Aristida* spp. (three-awned speargrass) +/- *Eragrostis* spp. (lovegrass) Twining vines species such as *Cassytha filiformis*, *Evolvulus alsinoides*, and *Ipomoea brassii* can be common. Scattered emergent shrubs can occur and include *Alyxia spicata* (chain fruit), *Lithomyrtus obtusa*, *Syzygium suborbiculare* and *Grevillea glauca* (clothespeg Grevillea). Occurs on the crests of igneous hills. Not a Wetland. (BVG1M: 32b).

3.12.48b: Tussock grassland of *Themeda triandra* (kangaroo grass) +/- *Heteropogon* spp. +/- *Cassytha filiformis* +/- *Zornia muriculata*. Scattered emergent windswept shrubs of *Terminalia* spp., and *Cochlospermum gillivraei* (kapok) are sometimes present. Occurs on igneous headlands and islands. Not a Wetland. (BVG1M: 32b).

3.12.48c: Tussock grassland of *Schizachyrium fragile* (fire grass) and *Aristida* spp. (three-awned speargrass) +/- *Arundinella setosa* +/- *Eriachne* spp. (wanderer grasses) with scattered tall emergents that can include *Welchiodendron longivalve* (yellow box penda), *Melaleuca stenostachya* (fibre barked teatree) and *Petalostigma pubescens* (quinine). Occurs on rocky igneous headlands and islands. Not a Wetland. (BVG1M: 32b).

**Short description:** *Heteropogon triticeus* or *Themeda triandra* or *Schizachyrium fragile* tussock grassland on rocky igneous coastal headlands and islands

### Supplementary descriptions:

**Subregions:** 3, 2, 4, (1)

**Protected areas:** Lizard Island NP, Cape Melville NP (CYPAL), Wuthathi (Sir Charles Hardy Group) NP (CYPAL), Wuthara Island NP (CYPAL), Howick Group NP (CYPAL), Possession Island NP, Three Islands Group NP

**Extent in reserves:** High

**Wetland:** Not a Wetland

**Special values:**

**Comments:** 3.12.48: Grasslands are easily mappable but it is difficult to determine which is the dominant grass species. Found on shallower soils and often mosaics with shrubland where the soil is slightly deeper. Occurs on coastal headlands and offshore islands along the east coast of the Peninsula and in the Torres Strait.

3.12.48a: REs 3.12.29, 3.12.31 were amalgamated in to this RE. Occurs on Torres Strait Islands.

3.12.48b: A variant (vegetation unit 189B) occurs on Lizard Island and was described by Byrnes et al. (1977). *Themeda triandra* dominates the grassland, with *Arundinella nepalensis* codominant in the valleys. On headlands this RE may be transitioning into 3.12.21 and occur as a low woodland of *Acacia polystachya* and *Dodonaea polyandra*. Occurs on Torres Strait Islands and other offshore islands and headlands along the east coast.

3.12.48c: Restricted to headlands near the tip and some east coast islands.

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

**VM class:** Of concern

**Biodiversity status:** Of concern

**Biodiversity status notes:**

<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.