Wet Eucalypt

VEGETATION TYPE 38

Regional Ecosystem: 12.8.1

New England Blackbutt/White Mahogany/Tallowwood (*Eucalyptus campanulata/E. acmenoides/E. microcorys*) Tall Open Forest on Cainozoic Igneous



COMMUNITY STRUCTURE

This vegetation type is a tall open forest with a canopy typically 17-38m in height and cover of 60-70%. It is characterised by New England Blackbutt (*Eucalyptus campanulata*) as one of the dominant trees, together with Turpentine (*Syncarpia glomulifera*) and other eucalypts (particularly E. *acmenoides, E. microcorys*). Mountain wattle (*Acacia orites*), Forest She-oak (*Allocasuarina torulosa*) and Tree Daviesia (*Daviesia arborea*) are often conspicuous in a sparse sub-canopy layer, and also as shrubs together with a diversity of other smaller trees.



The shrub layer is sparse to mid-dense depending on the time since the last fire. It often includes *Schizomeria ovata, Elaeocarpus reticulatus, Acacia melanoxylon, Austrobuxus swainii, Cryptocarya erythroxylon, Cyathea australis, Dodonaea spp.* and *Polyscias sambucifolia* as young trees or shrubs. The groundcover layer is diverse and is often dominated by ferns (particularly *Calochlaena dubia, Dicranopteris linearis* and *Pteridium esculentum*). Vines are common, including *Smilax australis* and *Cissus hypoglauca*.



Characteristic plant species

Approximately 124 native plants species have been recorded for this vegetation type. Characteristic plant species for this vegetation type are listed below. Dominant (most numerous) species are shaded.



Indicates species is a preferred koala food tree*



Indicates species is a Glossy Black-Cockatoo feed tree species



Indicates species is a City-wide significant species

* It is noted that in addition to preferred food trees, koalas utilise a range of eucalypt and non-eucalypt tree species for supplemental feeding and other uses such as shelter. These other species are also important and necessary features of koala habitat.

CANOPY

Upper layer of vegetation exposed to sunlight which creates a canopy that shades lower layers



New England Blackbutt Eucalyptus campanulata







White Mahogany Eucalyptus acmenoides

Pink Bloodwood Corymbia intermedia



Tallowwood Eucalyptus microcorys



Turpentine Syncarpia glomulifera



Broad-leaved White

Eucalyptus carnea

Mahogany



Red Mahogany Eucalyptus resinifera



SUB-CANOPY

Tree layer below canopy



Forest She-Oak Allocasuarina torulosa



Mountain Wattle Acacia orites



Tree Daviesia Daviesia arborea



Pink Bloodwood Corymbia intermedia





Bolly Gum Litsea reticulata



SHRUB LAYER

Middle layer of vegetation usually made up of small trees and woody shrubs



Blueberry Ash Elaeocarpus reticulatus



Pink Cherry Austrobuxus swainii



Crabapple Schizomeria ovata



Elderberry Panax Polyscias sambucifolia



Pigeonberry Ash Cryptocarya erythroxylon



Rough Treefern Cyathea australis



Blackwood Acacia melanoxylon



Forest Hop Bush Dodonaea triquetra



Mountain Wattle Acacia orites



Corkwood Duboisia myoporoides



Two-veined Hickory Acacia binervata



GROUND LAYER AND VINES

Lowest layer of vegetation. Plant types can include grasses; graminoids (non-woody plants with a grass-like morphology); ferns; forbs (non-woody, broad-leaved, flowering plants) and vines which may extend upwards into the canopy.



Gristle Fern Blechnum cartilagineum FERN



Common Ground Fern Calochlaena dubia FERN

Photo needed

Broad-leaved Grass Tree Xanthorrhoea latifolia subsp.maxima GRASS TREE



Forked Fern Dicranopteris linearis va. linearis FERN



Wiry Panic Entolasia stricta GRASS

Photo needed

Prickly Shield Fern Arachniodes aristata FERN



Prickly Rasp Fern Doodia aspera FERN



Bracken Fern Pteridium esculentum FERN



Barbed-wire Vine Smilax australis VINE





Giant Water Vine Cissus hypoglauca VINE





City-wide significant plant species



The City of Gold Coast recognises species which are locally significant as City-wide significant (CWS) species. These species are important because they may be threatened, restricted to the Gold Coast, or at the edge of their geographic range. In addition to characteristic species identified above as CWS species, the following CWS plant species may also be present in this vegetation type.





Palm Lily Cordyline congesta SHRUB

Solanum shirleyanum sнкив



OCCURRENCE

Native plants occur in vegetation communities, which are consistently associated with a particular soil type, landform (shape of the land, e.g. hills or plains) aspect (position on a slope in relation to the sun) and climate.

This vegetation type is the most common tall open forest on the Springbrook and Lamington plateaus within the Gold Coast, where it occupies moderate to high altitude (300m+ above sea level) areas of these plateaus. It occurs on basalt- and rhyolite-derived sandy to loamy soils. It adjoins rainforest (VT29b, 29c, 29d) on richer basalt-derived soil, and VT41 (Flooded Gum/Sydney Blue Gum tall open forest on Cainozoic Igneous Rocks) in more sheltered gullies. It also transitions into VT1d (Broad-leaved White Mahogany/Queensland Stringybark/Tallowwood) on more exposed areas and drier rhyolitic soils. It is restricted to elevated areas in Springbrook and Numinbah within the Gold Coast.

Historic distribution of Vegetation Type 38



* Metasediment rocks

The most common underlying geology on the Gold Coast is metasediment rocks. Metasediment rocks are a type of metamorphic rock (rock transformed by heat and pressure). Originally these rocks were sedimentary rocks which were formed on the ocean floor through the deposition and solidification of sediment. These sedimentary rocks were subsequently buried underneath other rocks and subjected to high pressures and temperatures, causing the rock to recrystallize. This recrystallization process is known as metamorphosis, hence the term metamorphic rocks. About 300 million years ago these metamorphic rocks were pushed upward by geologic processes, creating much of the ranges, hills and lowlands on the Gold Coast.



2017 EXTENT AND CONSERVATION STATUS

Gold Coast

The current extent* of this vegetation type on the Gold Coast is 877 hectares.

1 HECTARE (HA) = 2.46 ACRES ≅ THE SIZE OF AN INTERNATIONAL RUGBY FIELD



* Extent as mapped in 2017. Includes remnant vegetation only. Does not include disturbed remnant or regrowth.

Queensland

The conservation status of vegetation in Queensland is specified under the *Vegetation Management Act 1999*, which lists this regional ecosystem (RE 12.8.1) as being 'Least Concern'.

LIKELIHOOD OF BECOMING EXTINCT (in QLD) due to biodiversity loss/degradation



USEFUL RESOURCES

City of Gold Coast website: Environmental weeds and invasive plants.

Find out more about regional ecosystems at the Queensland Government Regional Ecosystems webpage.

CREDITS

Content – ngh Environmental and Jason Searle. Vegetation Type Photo – Lui Weber © Unless otherwise noted all other photos – Glenn Leiper ©

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THREATS

This vegetation type occurs on moderately fertile soils in high rainfall areas, and is subject to some level of weed invasion, particularly Lantana, and to a lesser extent Privet and other weeds that grow well in temperate environments. The vegetation is common on flatter areas of the Springbrook plateau and is subject to clearing and disturbance from fire. It responds best to low frequency, moderate intensity fires. Weed and fire management are key to the healthy management of this vegetation type.

About common threats

Clearing

Native vegetation is protected by Federal, State and local legislation. However, with increasing population growth in the region, Southeast Queensland is experiencing large amounts of vegetation clearing, particularly in areas designated for urban development. Protecting native vegetation on your property is one of the most beneficial things you can do to protect wildlife and the natural environment.

Weeds

Environmental weeds are the second biggest threat to our natural environment after land clearing. Environmental weeds (introduced plants that have naturalised and are invading our bushland) degrade our natural environment by:

- out competing native plant species for available nutrients and light
- taking over and transforming native landscapes often leading to local plant or animal extinctions and loss of biodiversity
- reducing the availability of food and other resources for many native animals whilst sometimes benefiting pest animals
- increasing the risk of destructive wildfire
- often being toxic to people and animals.

Fire

Very broadly, vegetation types are either adapted to fire or fire sensitive. Fire can become a threat if:

- it extends into vegetation types which should not be burnt e.g. rainforest,
- the frequency and/or intensity of the fire is too high,
- the area burnt is too large.

Grazing

The grazing of animals like cattle, horses, goats and feral animals such as deer can cause trampling or loss of diversity of seedlings and compact soil, preventing natural regeneration.

Collecting

Unethical and illegal collection of plant specimens in the wild poses a serious threat to some species, particularly orchids, grass trees and epiphytes.

Climate change

Changes in temperature and rainfall can have significant effects on our city's vegetation. For example, without consistent rainfall, areas become drier, potentially resulting in higher fire frequency and/or intensity, which some plants and vegetation communities won't be able to tolerate. Plants (and animals) need available space to migrate as conditions change, with high altitude species at the greatest risk as there is nowhere suitable for them to go. Warmer conditions may also provide the right habitat for a greater variety of weeds. As sea levels rise, salt water moves further upstream and vegetation also becomes inundated.

