# **EUCALYPT**

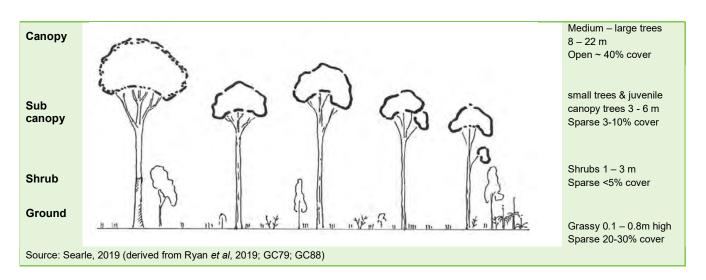
#### **VEGETATION TYPE 1d**

Regional Ecosystem: 12.8.20
Broad-leaved White Mahogany - Queensland
Stringybark - Tallowwood +/- New England
Blackbutt (*Eucalyptus carnea - E. tindaliae - E. microcorys +/- E. campanulata*) Woodland on
Cainozoic Igneous Rocks



### **COMMUNITY STRUCTURE**

Vegetation type (VT) 1d is typically an open woodland providing approximately 40% canopy cover (% shade to underlying plants). The canopy layer ranges from 8-22m high, with *Eucalyptus carnea* and *E. tindaliae* the most regularly occurring tree types, although a wide variety of other species (most notably *E. microcorys*, *E. siderophloia*, *E. resinifera* and *E campanulata*) can be present or locally dominant.



The sub-canopy and shrub layers below the canopy are usually sparse to very sparse (ca. <10% cover) and include mainly saplings of canopy species, together with Black She-oaks (*Allocasuarina littoralis*) and Tree Pea (*Daviesia arborescens*). The ground layer is open and dominated by grasses (*Themeda triandra*, *Digitaria parviflora*, *Entolasia stricta*), although the grass tree *Xanthorrhoea latifolia* is conspicuous and can be locally dominant).



# **Characteristic plant species**

Approximately **64 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

Photo needed

Photo needed



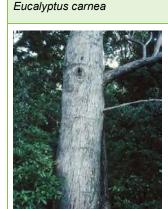
Tallowwood

Eucalyptus microcorys



Queensland White Stringybark

Eucalyptus tindaliae



**Broad-leaved White** 

Mahogany

New England Blackbutt

Eucalyptus campanulata



**Grey Ironbark** *Eucalyptus siderophloia* 



Red Stringybark/ Mahongany Eucalyptus resinifera



**Turpentine**Syncarpia glomulifera

## **SUB-CANOPY**

Tree layer below canopy



**Tree Pea**Daviesia arborea

# SHRUB LAYER

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



Black She-Oak

Allocasuarina littoralis



Two-veined Hickory

Acacia binervata



Narrow-leaved Geebung
Persoonia media

# **GROUND LAYER AND VINES**

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



Flat-leaved Grass Tree
Xanthorrhoea latifolia
OTHER



Kangaroo Grass
Themeda triandra
GRASS (TUSSOCK)

Photo needed

Small-flowered Fingergrass

Digitaria parviflora

GRASS (TUSSOCK)



Wiry Panic Entolasia stricta GRASS (TUSSOCK)

# 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.



Pink Rock Orchid

Dendrobium kingianum

ORCHID



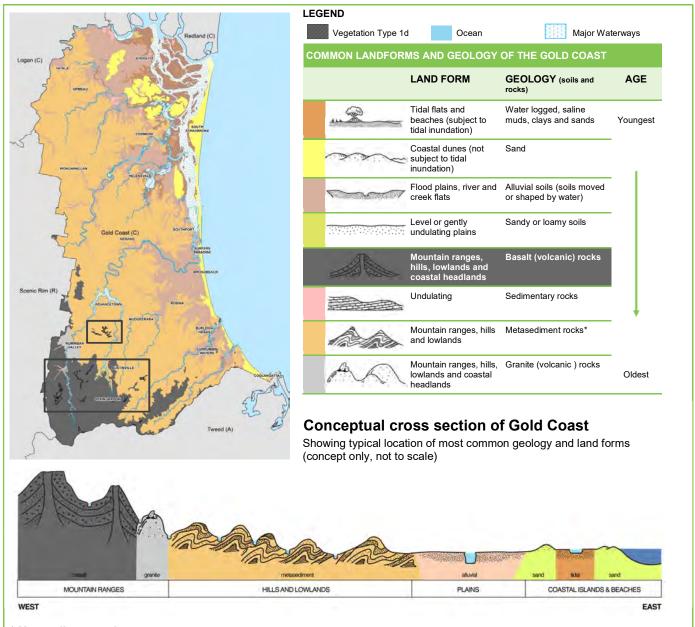
Sandalwood
Santalum obtusifolium
TREE

#### **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 occurs on dry plateaus and high slopes adjoining cliff faces and is largely restricted to the outer escarpment of the Springbrook plateau and associated ridgeline running eastwards towards Bonogin. It occurs on both eastern and western escarpment areas, and is a lower woodland in the most exposed and rocky areas.

### Historic distribution of Vegetation Type 1d



#### \* 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 370 hectares.

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



<sup>\*</sup> 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 12.8.20) as being 'Of Concern'.

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

MOST LIKELY		LEAST LIKELY
Endangered	Of Concern	Least Concern

### **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**

Broad-leaved White Mahogany/Queensland Stringybark woodland on the edges of the Springbrook plateau is an open vegetation type, the ground layer which typically forms a mosaic of grassland and more open areas with a conspicuous litter layer of leaves and bark. Too frequent fires, over-grazing or other loss of native grassy understorey can result in erosion and desiccation of the soil layer.

### Common threats to all vegetation types

#### 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.

