

# RAINFOREST

## subtropical



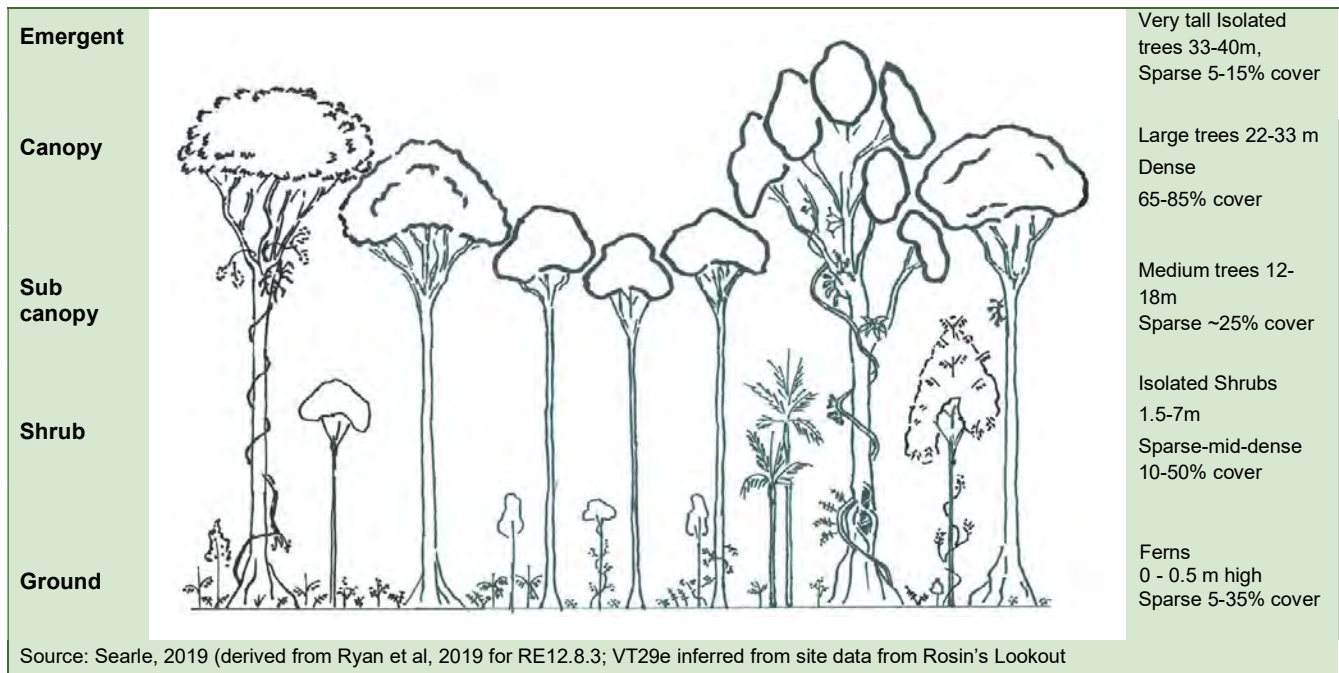
### VEGETATION TYPE 29e

Regional Ecosystem: 12.8.3

Vine Forest on Laterised Plateaus (usually <600 m altitude)

### COMMUNITY STRUCTURE

Vegetation Type (VT) 29e consists of a dense canopy (up to 85% cover shading understorey plants) from 22-33m high, with isolated emergent figs (*Ficus watkinsiana*) to 40m high. Characteristic canopy species include White Booyong (*Argyrodendron trifoliolatum*), Rose Marrara (*Pseudoweinmannia lachnocarpa*), Yellow Wood (*Flindersia xanthoxyla*) and stinging trees (*Dendrocnide spp.*), although a diversity of other canopy and smaller trees are also present. This vegetation type is similar both structurally and floristically to the more widespread and common VT29b (Sub-tropical vine forest on Cainozoic Igneous Rocks <600m).



The shrub and lower tree layers are sparse to mid-dense and comprise a diverse mix of rainforest plants, whilst the ground cover is sparse and comprised mainly of ferns (particularly *Lastreopsis spp.*). Vines and epiphytes are common and conspicuous.

# Characteristic plant species

This vegetation type supports a high proportion of the City's diversity, including a wealth of rare and threatened plant species. Approximately **288 native plants** 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.

## EMERGENT

Tallest trees, visible above the canopy



**Strangler Fig**  
*Ficus watkinsiana*



**Yellowwood**  
*Flindersia xanthoxyla*



**Rose Marrara**  
*Pseudoweinmannia lachnocarpa*

## CANOPY

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



**White Booyong**  
*Argyrodendron trifoliolatum*



**Rose Marrara**  
*Pseudoweinmannia lachnocarpa*



**Giant Stinging Tree**  
*Dendrocnide excelsa*



**Yellowwood**  
*Flindersia xanthoxyla*

# CANOPY

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



**Shiny-leaved Stinging Tree**  
*Dendrocnide photinophylla*



**Black Apple**  
*Planchonella australis*



**Brown Pine**  
*Podocarpus elatus*



**Satinwood**  
*Vitex lignum-vitae*



**Blackbean**  
*Castanospermum australe*



**Myrtle Ebony**  
*Diospyros pentamera*



**Sour Cherry Tree**  
*Syzygium corynanthum*



**Purple Cherry**  
*Syzygium crebrinerve*



**Red Carrabeen**  
*Karrabina benthamiana*  
(formerly *Geissois benthamii*)



**Guioa**  
*Guioa semiglauca*

## SUB-CANOPY

Tree layer below canopy



**Brush Bloodwood**  
*Baloghia inophylla*



**Muskwood**  
*Alangium villosum* subsp. *polyosmoides*



Jason Searle ©

**Twin-leaf Coogera**  
*Arytera distylis*



**Shiny-leaved Stinging Tree**  
*Dendrocnide photinophylla*



**Marbled Baloghia**  
*Baloghia marmorata*

## SHRUB LAYER

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



**Fissistigma**  
*Meiogyne stenopetala* subsp. *stenopetala*



Jason Searle ©

**Twin-leaf Coogera**  
*Arytera distylis*



**Actephila**  
*Actephila lindleyi*



**Cleistanthus**  
*Cleistanthus cunninghamii*

## SHRUB LAYER

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



**White Bolly Gum**  
*Neolitsea dealbata*



**Grey Bolly Gum**  
*Neolitsea australiensis*



**Walking Stick Palm**  
*Linospadix monostachya*



**Smooth Wilkiea**  
*Wilkiea austroqueenslandica*

## GROUND LAYER

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).



**Glossy Shield Fern**  
*Lastreopsis marginans*  
FERN



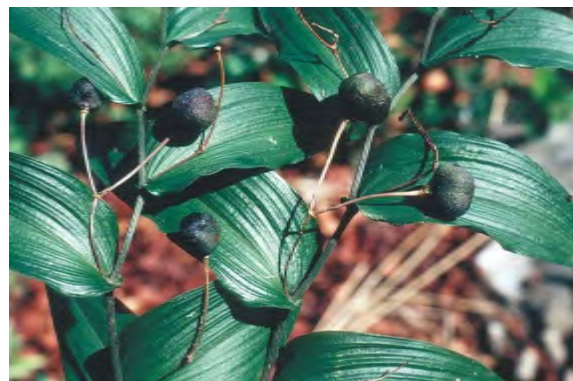
**Trim Shield Fern**  
*Lastreopsis decomposita*  
FERN



**Prickly Rasp Fern**  
*Doodia aspera*  
FERN



**Cunjevoi**  
*Alocasia brisbanensis*  
FORB



**Tripladenia**  
*Tripladenia cunninghamii*  
FORB

## VINES AND CLIMBERS

Plant species which grow from the ground but use trees or other features for support and often extend upwards into the canopy



**Whip Vine / Supplejack**  
*Flagellaria indica*



**Round-leaved Vine**  
*Legnephora moorei*



**Giant Pepper Vine**  
*Piper novae-hollandiae*



**Burny Vine**  
*Trophis scandens subsp. scandens*



**Wait-a-while/ Lawyer Vine**  
*Calamus muelleri*



**Pothos**  
*Pothos longipes*



**Climbing Fishbone Fern**  
*Arthropteris tenella*

## EPIPHYTES & LITHOPHYTES

Species that grow on the surface of other plants (epiphyte) and rocks (lithophyte)



**Hare's Foot Fern**  
*Davallia pyxidata*  
FERN



**Blotched Cane Orchid**  
*Dendrobium gracilicaule*  
ORCHID



**Elkhorn**  
*Platycerium bifurcatum*  
FERN



**Staghorn**  
*Platycerium superbum*  
FERN

## 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.



**Byron Bay Acronychia**  
*Acronychia baeuerlenii*



**Red Pearfruit**  
*Mischocarpus australis*



**Long-leaved Tuckeroo**  
*Cupaniopsis newmanii*



**Black Booyong**  
*Argyrodendron actinophyllum subsp. actinophyllum*



**Palm Lily**  
*Cordyline congesta*



**Pencil Orchid**  
*Dockrillia teretifolia*



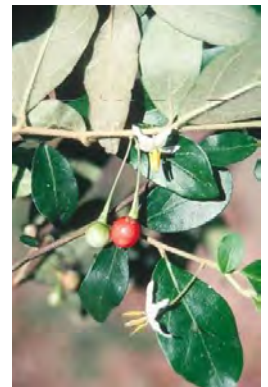
**Finger Lime**  
*Citrus australasica*



**Soft Jasmine**  
*Jasminum singuliflorum*  
(formerly *Jasminum dallachii*)



**Hoop Pine Solanum**  
*Solanum serpens*



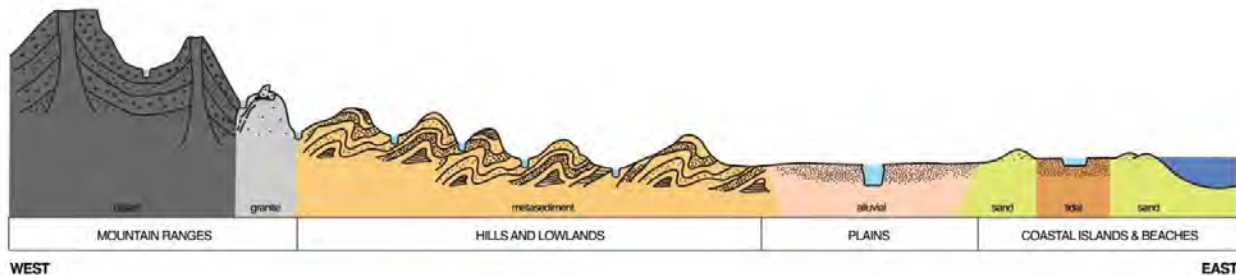
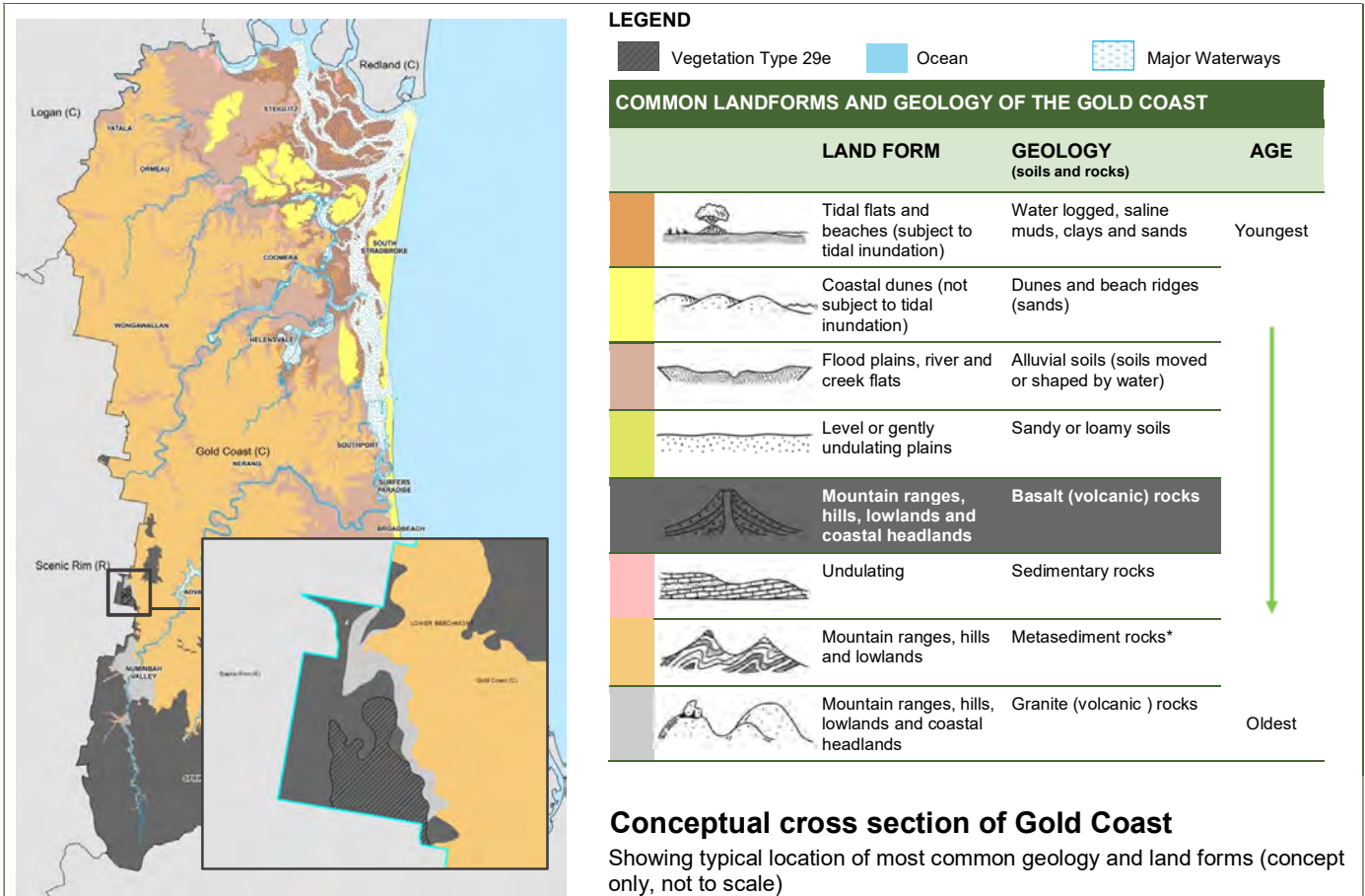
**Stragglng Nightshade**  
*Solanum shirleyanum*

## 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.

VT29e is restricted to the eastern slope of the Beechmont Plateau at Numinbah within the Gold Coast city area. Soils are lateritic, meaning they are derived from prolonged weathering of the basalt rock left behind from the Tweed Volcano, and are deep and fertile and a rich red in colour.

## Historic distribution of Vegetation Type 29e



### \* 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.

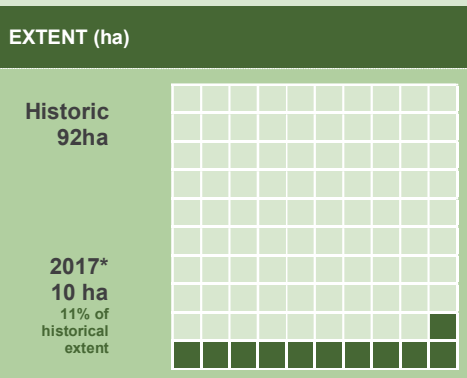


## 2017 EXTENT AND CONSERVATION STATUS

### Gold Coast

Historically, this vegetation type was one of the least common types of rainforest and vegetation types within the Gold Coast. It extent has further reduced with only 11% of its historical extent remaining.

**1 HECTARE (HA) = 2.46 ACRES  $\approx$  THE SIZE OF AN INTERNATIONAL RUGBY FIELD**

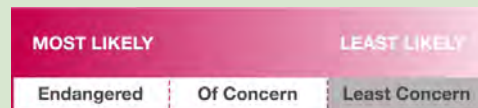


\* Extent as mapped in 2017. Includes remnant vegetation only. Does not include disturbed remnant or regrowth.

### Queensland

The conservation status of vegetation in Queensland is specified under the *Vegetation Management Act 1999*, which lists this regional ecosystem (RE 12.8.3) 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 is largely incorporated in national park and other protected areas, and relatively well protected. Wildfire and weed invasion are the main potential threats to this vegetation community.

### 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 is 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 and creek areas
- 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.