

# RAINFOREST

## subtropical

### VEGETATION TYPE 29f

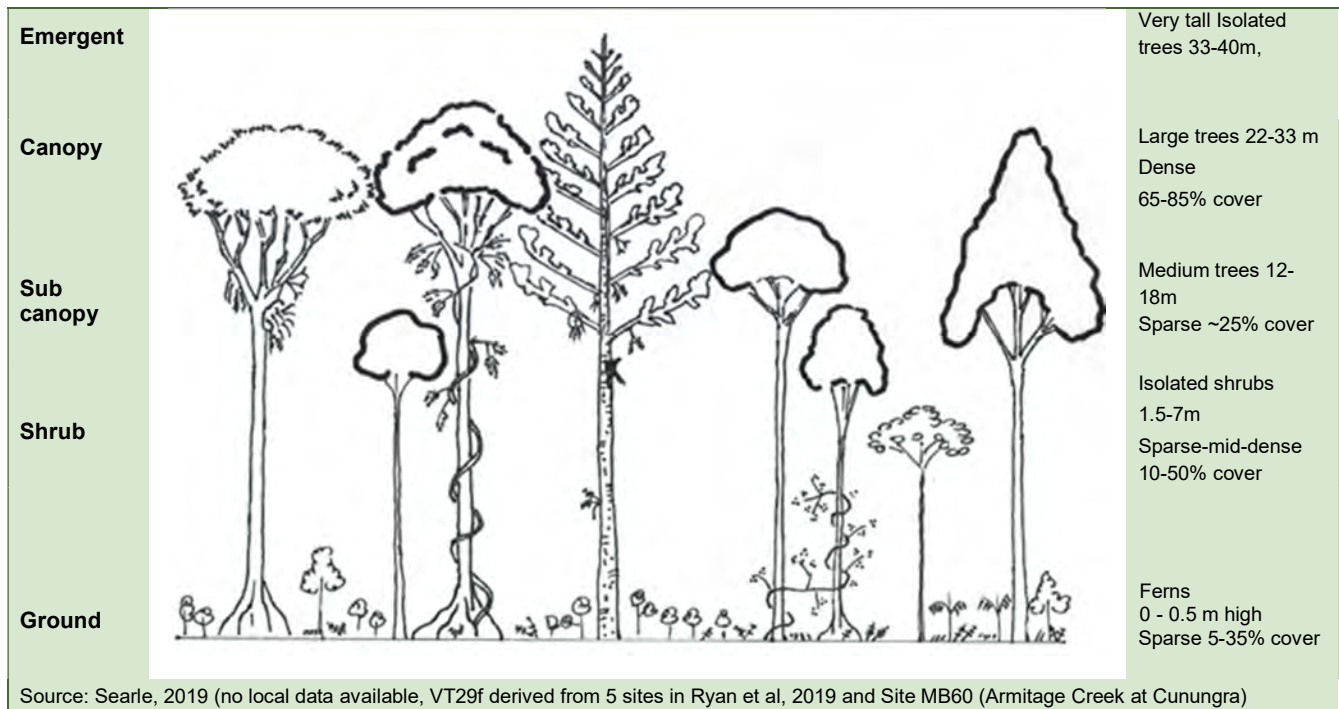
Regional Ecosystem: 12.12.16

Vine Forest on Mesozoic Igneous Rocks



### COMMUNITY STRUCTURE

Vegetation type (VT) 29f consists of a dense canopy (up to 85% cover shading understorey plants) from 22-33m high, with isolated emergent Hoop Pine or figs (*Araucaria cunninghamii*, *Ficus watkinsiana*) to 40m high. Characteristic canopy species include Yellow Carabeen (*Sloanea woollsii*), White Booyong (*Argyrodendron trifoliolatum*), Rose Marrara (*Pseudoweinmannia lachnocarpa*), Native Olive (*Olea paniculata*) and Giant Stinging Tree (*Dendrocnide excelsa*) although other canopy and smaller trees are present.



The shrub and lower tree layers are sparse to mid-dense and comprise a mix of rainforest plants (*Cleistanthus cunninghamii*, *Gossia bidwillii* and *Meiogyne stenopetala* are often dominant), whilst the ground cover is sparse and comprised mainly of ferns (*Doodia aspera*, *Lastreopsis* spp., *Pellaea nana*). Vines (particularly *Cissus antarctica*) and epiphytes are common and conspicuous.

## Characteristic plant species

Approximately **118 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



**Hoop Pine**  
*Araucaria cunninghamii*



**Strangler Fig**  
*Ficus watkinsiana*

### CANOPY

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



**Yellow Carabeen**  
*Sloanea woollsii*



**Native Olive**  
*Olea paniculata*



**White Booyong**  
*Argyrodendron trifoliolatum*



**Rose Marrara**  
*Pseudoweinmannia lachnocarpa*

# CANOPY

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



**Giant Stinging Tree**  
*Dendrocnide excelsa*



**Crow's Ash**  
*Flindersia australis*



**Satinwood**  
*Vitex lignum-vitae*



**Grey Walnut**  
*Beilschmiedia elliptica*



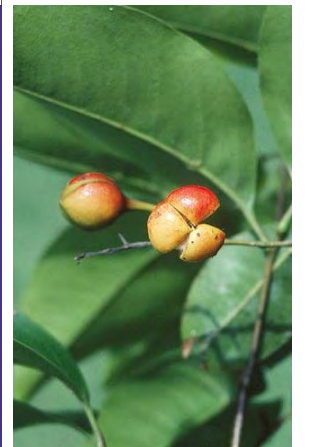
**Native Elm**  
*Aphananthe philippinensis*



**Myrtle Ebony**  
*Diospyros pentamera*



**Yellow Boxwood**  
*Planchonella pohlmiana*



**Veiny Pear-fruit**  
*Mischocarpus anodontus*

## SUB-CANOPY

Tree layer below canopy



**Python Tree**  
*Gossia bidwillii*



**Scrub Bloodwood**  
*Baloghia inophylla*



**Turnipwood**  
*Akania bidwillii*



**Yellow Tulip**  
*Drypetes deplanchei*



**Flame Tree**  
*Brachychiton acerifolius*



**Coogera**  
*Arytera divaricata*



**Foambark**  
*Jagera pseudorhus* var.  
*pseudorhus*



**Large-leaved Canthium**  
*Psydrax lamprophylla*



**Penta Ash**  
*Pentaceras australe*



**Celerywood**  
*Polyscias eelgans*



**Yellow Pear-fruit**  
*Mischocarpus pyriformis*

# SHRUB LAYER

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



**Python Tree**  
*Gossia bidwillii*



**Cleistanthus**  
*Cleistanthus cunninghamii*



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



**Walking Stick Palm**  
*Linospadix monostachya*



**Peanut Tree**  
*Sterculia quadrifida*



**Native Caper**  
*Capparis arborea*



**Native Holly**  
*Alchornea ilicifolia*



**Red Kamala**  
*Mallotus philippensis*



**Tuckeroo**  
*Cupaniopsis anacardioides*



**Smooth Psychotria**  
*Psychotria daphnoides*



**Chain Fruit**  
*Alyxia ruscifolia*



## 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).



**Prickly Rasp Fern**

*Doodia aspera*  
FERN



**Glossy Shield Fern**

*Lastreopsis marginans*  
FERN



Leaf underside

**Trim Shield Fern**

*Lastreopsis decomposita*  
FERN



Leaf underside

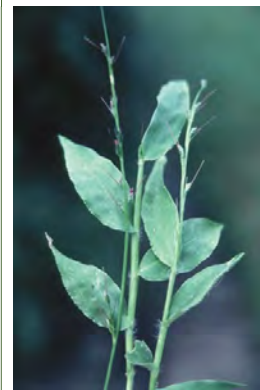
**Naked Shield Fern**

*Lastreopsis munita*  
FERN



**Sickle Fern**

*Pellaea nana*  
FERN



**Creeping Beard Grass**

*Oplismenus aemulus*  
GRASS



**Graceful Grass**

*Ottochloa gracillima*  
GRASS



City of Gold Coast ©

**Rough Maidenhair Fern**

*Adiantum hispidulum*  
FERN



**Native Ginger**

*Alpinia caerulea*  
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



**Kangaroo Vine**  
*Cissus antarctica*



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



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



**Climbing Fishbone Fern**  
*Arthropteris tenella*



**Zig-Zag Vine**  
*Melodorum leichhardtii*



**White Supplejack**  
*Ripogonum album*



**Three-leaved Water Vine**  
*Tetragium nitens*



**Blood Vine**  
*Austrosteenisia blackii*

## EPIPHYTES & LITHOPHYTES

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



**Staghorn**  
*Platynerium superbum*



**Simple Speenwort**  
*Asplenium attenuatum var. attenuatum*



**Bird's Nest Fern**  
*Asplenium australasicum*

## EPIPHYTES & LITHOPHYTES

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



**King Orchid**  
*Dendrobium speciosum* var. *hillii*



**Tree Spider Orchid**  
*Dendrobium tetragonum*



**Horseshoe Felt Fern**  
*Pyrrhosia confluens* var. *confluens*

## 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.



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



**Stinking Cryptocarya**  
*Cryptocarya foetida*



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



**Finger Lime**  
*Citrus australasica*



**Palm Lily**  
*Cordyline congesta*



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

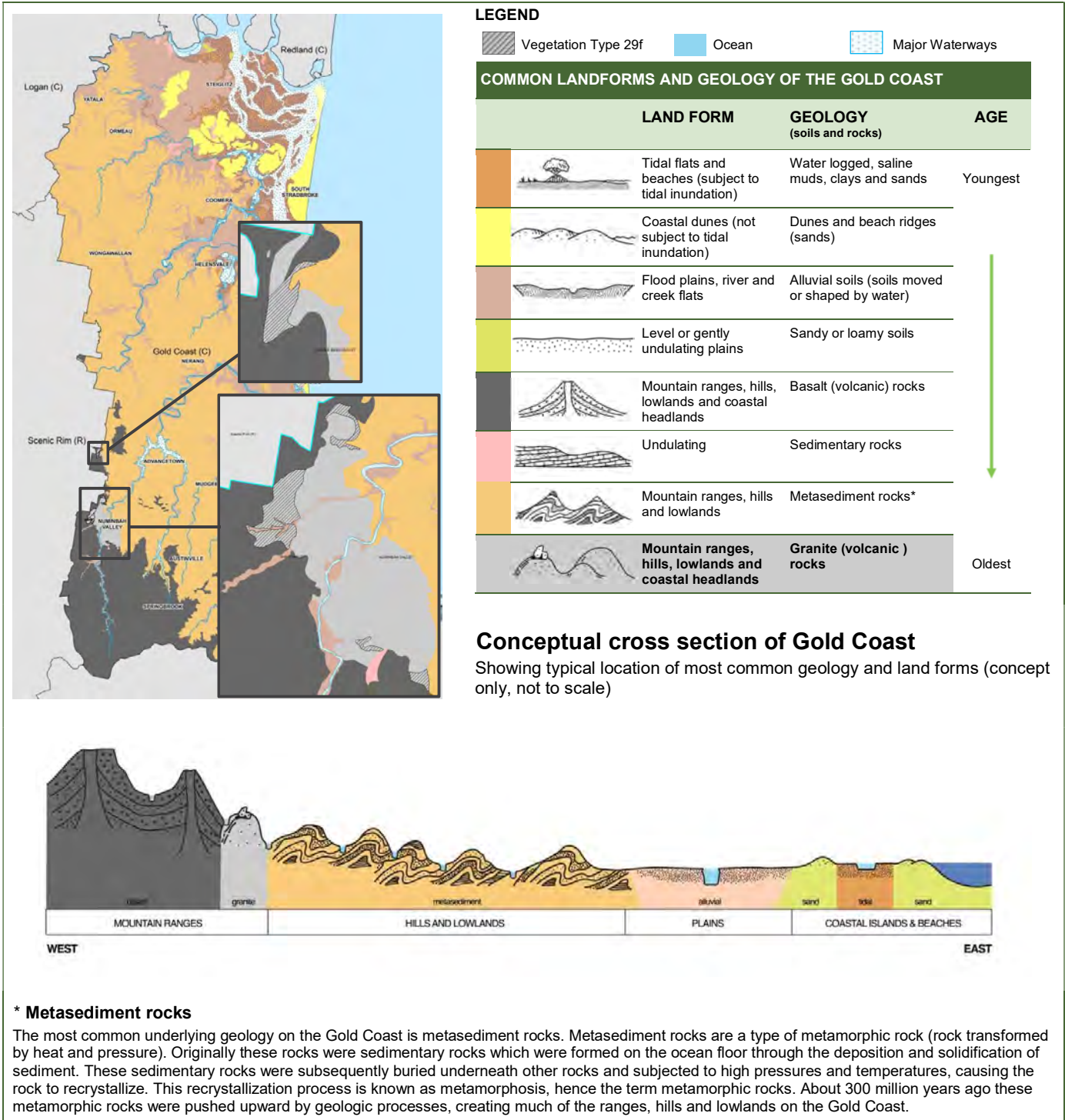


## OCCURRENCE

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.

Sub-tropical vine forest on Mesozoic Igneous Rocks is found on sheltered hillslopes on moderately fertile soils with deep leaf litter, high humic content and good moisture content. It is the main rainforest vegetation restricted to an area of land on old volcanic-derived soils called the 'Chillingham Volcanics', and within the Gold Coast is restricted to the lower (northern) Numinbah Valley and Lower Beechmont. Other areas of this vegetation type occur on similar soils in Tweed Shire.

## Historic distribution of Vegetation Type 29f



## 2017 EXTENT AND CONSERVATION STATUS

### Gold Coast

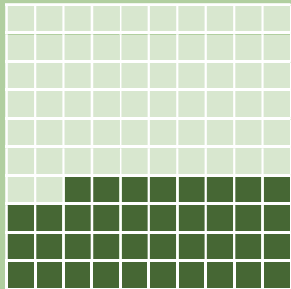
Historically one of the least common types of rainforest and vegetation types within the Gold Coast. The 2017 extent\* of this vegetation type on the Gold Coast was 46 hectares.

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

#### EXTENT (ha)

Historic  
122ha

2017\*  
46 ha  
38% of  
historical  
extent

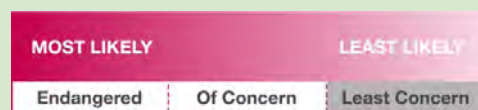


\* Extent as mapped in 2017. Includes remnant vegetation only. Does not include disturbed remnant or regrowth.

### Queensland

The conservation status of vegetation in Queensland is specified under the *Vegetation Management Act 1999*, which lists this regional ecosystem (RE 12.12.16) 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 ©

Version 3, November 2020

## THREATS

This vegetation type is sensitive to fire; particularly where it adjoins tall open forest in which eucalypts or Brush Box occur. Invasion by exotic weeds, particularly woody weeds (such as Camphor Laurel), Lantana and exotic vines (including Madeira Vine and Cat's-claw Creeper) represent the main threat to the integrity of these vegetation communities. Appropriate weed management is critical, especially near edges and clearings.

### 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.