

# RAINFOREST

## subtropical

### VEGETATION TYPE 29d

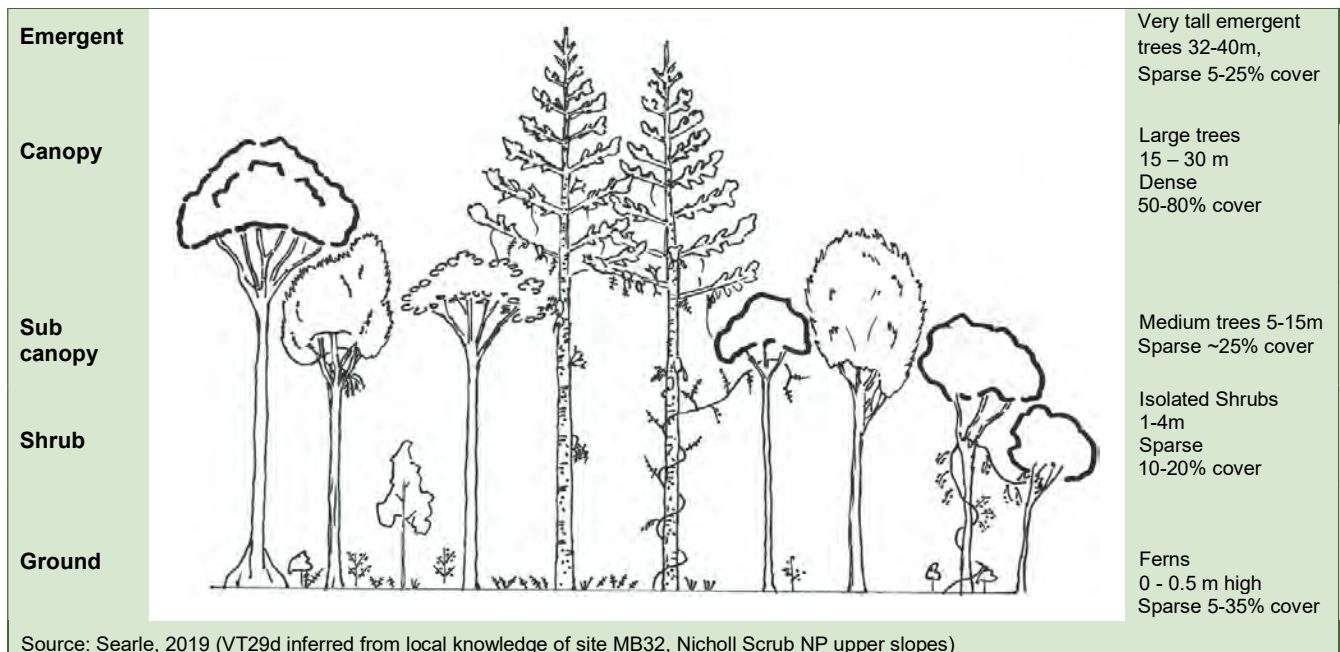
Regional Ecosystem: 12.8.4

Araucarian Vine Forest on Cainozoic Igneous Rocks



### COMMUNITY STRUCTURE

Vegetation type (VT) 29d consists of a dense canopy (up to 80% cover shading understorey plants). The main canopy layer from 18-30m high is typically over-topped by a tall layer of Hoop Pine emergents (*Araucaria cunninghamii*) to 40m high, which distinguish this community from other rainforest community types. Characteristic canopy species include Native Elm (*Aphananthe philippinensis*), White Booyong (*Argyrodendron trifoliolatum*), Rose Marrara (*Pseudoweinmannia lachnocarpa*), Myrtle Ebony (*Diospyros pentamera*), Penta Ash (*Pentaceras australe*) and stinging trees (*Dendrocnide spp.*), although a diversity of other canopy and smaller trees are also present, with *Bosistoa pentacocca*, *Sarcomelicope simplicifolia* and *Diospyros* species often present.



The shrub layer is typically sparse and patchy with Soft Acalypha (*Acalypha eremorum*), Burr Bush (*Monococcus echinophorus*) or Omega (*Cleistanthus cunninghamii*) locally dominant, whilst the ground cover is comprised mainly of ferns (particularly *Pellaea nana* and *Lastreopsis spp.*). Vines and epiphytes are also usually common.

## Characteristic plant species

Approximately **100** 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.

### EMERGENT

Tallest trees, visible above the canopy



**Hoop Pine**

*Araucaria cunninghamii*



**Marblewood**

*Acacia bakeri*

### CANOPY

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



**Native Elm**

*Aphananthe philippinensis*



**White Booyong**

*Argyrodendron trifoliolatum*



**Rose Marrara**

*Pseudoweinmannia lachnocarpa*

# CANOPY

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



**Myrtle Ebony**  
*Diospyros pentamera*



**Penta Ash**  
*Pentaceras australe*



**Giant Stinging Tree**  
*Dendrocnide excelsa*



**Shining-leaved Stinging Tree**  
*Dendrocnide photinophylla*



**Onion Cedar**  
*Owenia cepiodora*



**Scrub Poison Tree**  
*Excoecaria dallachyana*



**Satinwood**  
*Vitex lignum-vitae*



**Scrub Wilga**  
*Geijera salicifolia*



**Black Apple**  
*Planchonella australis*

## SUB-CANOPY

Tree layer below canopy



**Ferny-leaf Bonewood**  
*Bosistoa pentacocca*



**Yellow Wood**  
*Sarcamelicope simplicifolia*  
subsp. *simplicifolia*



**Grey Ebony**  
*Diospyros fasciculosa*



**Myrtle Ebony**  
*Diospyros pentamera*



**Black Apple**  
*Pouteria australis*



**White Yiel Yiel**  
*Grevillea hilliana*



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

## SHRUB LAYER

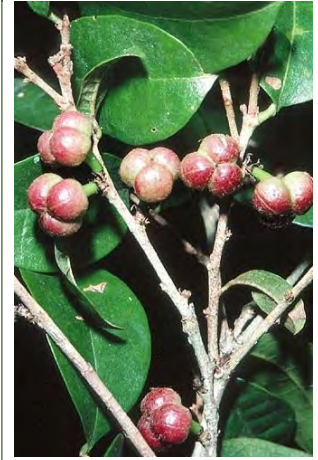
Middle layer of vegetation usually made up of small trees and woody shrubs



**Soft Alcaphyla**  
*Acalypha eremorum*



**Burr Bush**  
*Monococcus echinophorus* (patchy)



**Omega**  
*Cleistanthus cunninghamii*



**Actephila**  
*Actephila lindleyi*



**Native Holly**  
*Alchornea ilicifolia*



**Narrow-leaved Gardenia**  
*Atractocarpus chartaceus*

## 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).



**Dwarf Sickle Fern**

*Pellaea nana*

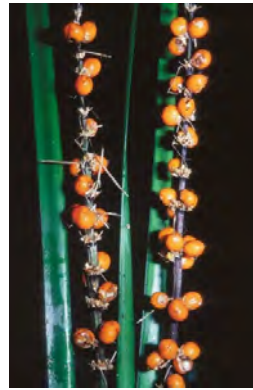
FERN



**Trim Shield Fern**

*Lastreopsis decomposita*

FERN



**Yellow-fruited Mat Rush**

*Lomandra spicata*

GRAMINOID (MAT RUSH)



**Bordered Shield Fern**

*Lastreopsis marginans*

FERN

## 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



**Blood Vine**

*Austrosteenisia blackii*



**Corky Prickle-vine**

*Mezoneuron brachycarpum*



**Wait-a-while**

*Calamus muelleri*



**Hairy Grape**

*Cayratia acris*



**Kangaroo Vine**

*Cissus antarctica*



**Embelia**

*Embelia australiana*



**White-flowered Melodinus**

*Melodinus acutiflorus*



**Zigzag Vine**

*Melodorum leichhardtii*

## EPIPHYTES

Species which grow on the surface of other plants



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



**Staghorn**  
*Platynerium superbum*



**Climbing Fern**  
*Arthropteris tenella*

## 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.



**Veiny Lace Flower**  
*Archidendron muellerianum*



**Finger Lime**  
*Citrus australasica*



**Lily of the Valley Orchid**  
*Dendrobium monophyllum*



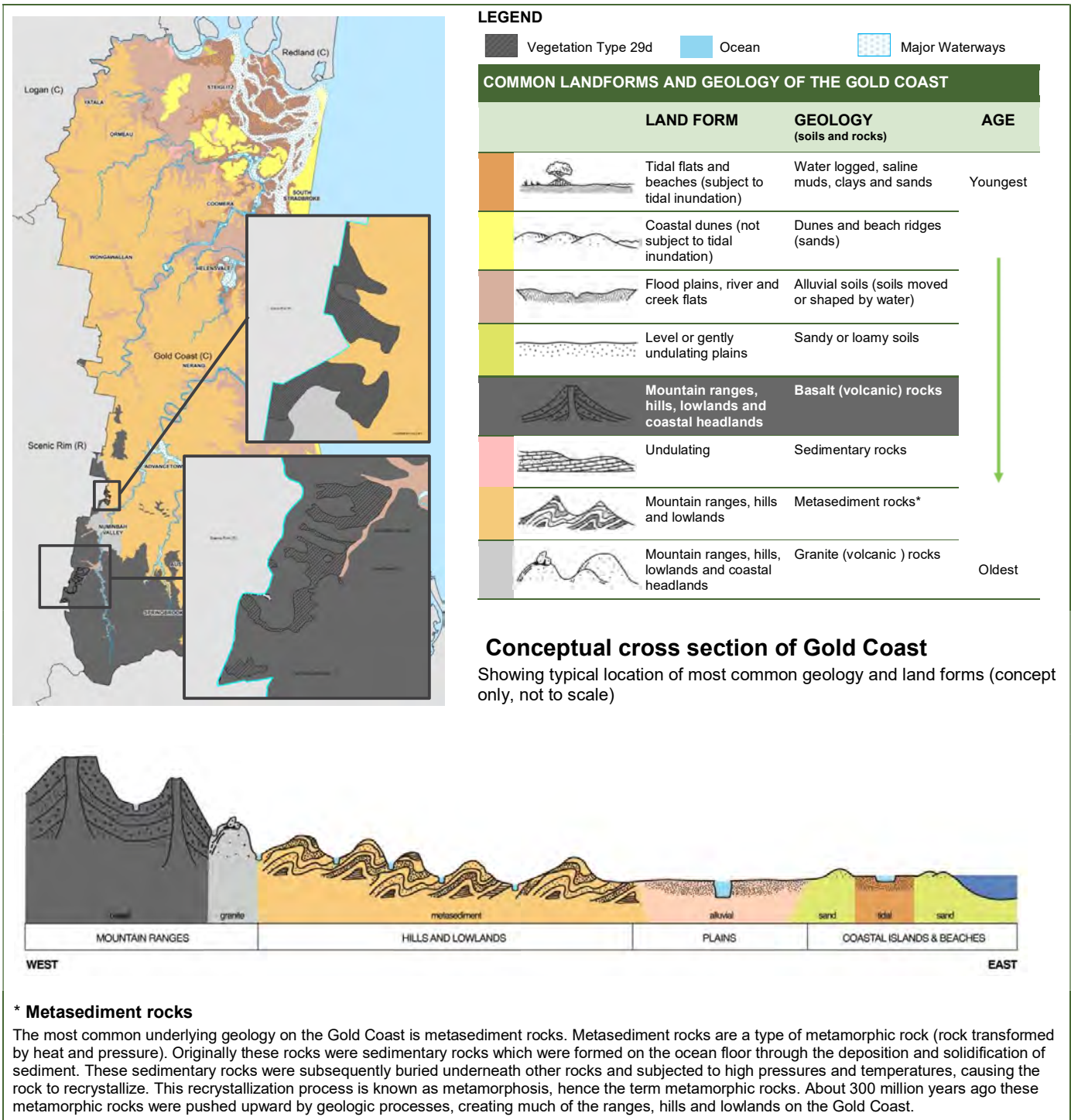
**Fine-leaved Tuckeroo**  
*Lepiderema pulchella*

## 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.

VT 29d is a rainforest community of drier and more exposed situations and is typically found on basalt-derived soils on slopes and scarps of tertiary plateaus. Within the Gold Coast, it is restricted to the eastern-facing slopes and edges of the Lamington Plateau (such as the Araucarian Circuit above northern Numinbah Valley), and as an isolated outcrop at Nicoll's Scrub National Park on the Tomewin slope of Currumbin Valley. This vegetation type transitions into the more widespread VT29b (Subtropical Rainforest generally below <600m) in less exposed areas.

## Historic distribution of Vegetation Type 29d





## 2017 EXTENT AND CONSERVATION STATUS

### Gold Coast

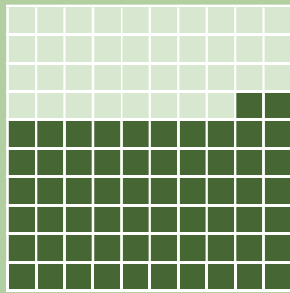
Historically, this vegetation type did not extend over large areas of the Gold Coast. The current extent\* of this vegetation type on the Gold Coast is 352 hectares which is comparable with its historical extent.

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

#### EXTENT (ha)

Historic  
567ha

2017\*  
352ha  
62% 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 12.8.4) as being 'Least 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

Given its more exposed and drier locations, Araucarian vine forest is particularly sensitive to fire. Invasion by exotic weeds, particularly Lantana represent the other main threat to the integrity of these vegetation communities, and appropriate weed management is required. Within Gold Coast this vegetation is almost entirely conserved within national parks.

### 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.