

RAINFOREST

subtropical

VEGETATION TYPE 29b

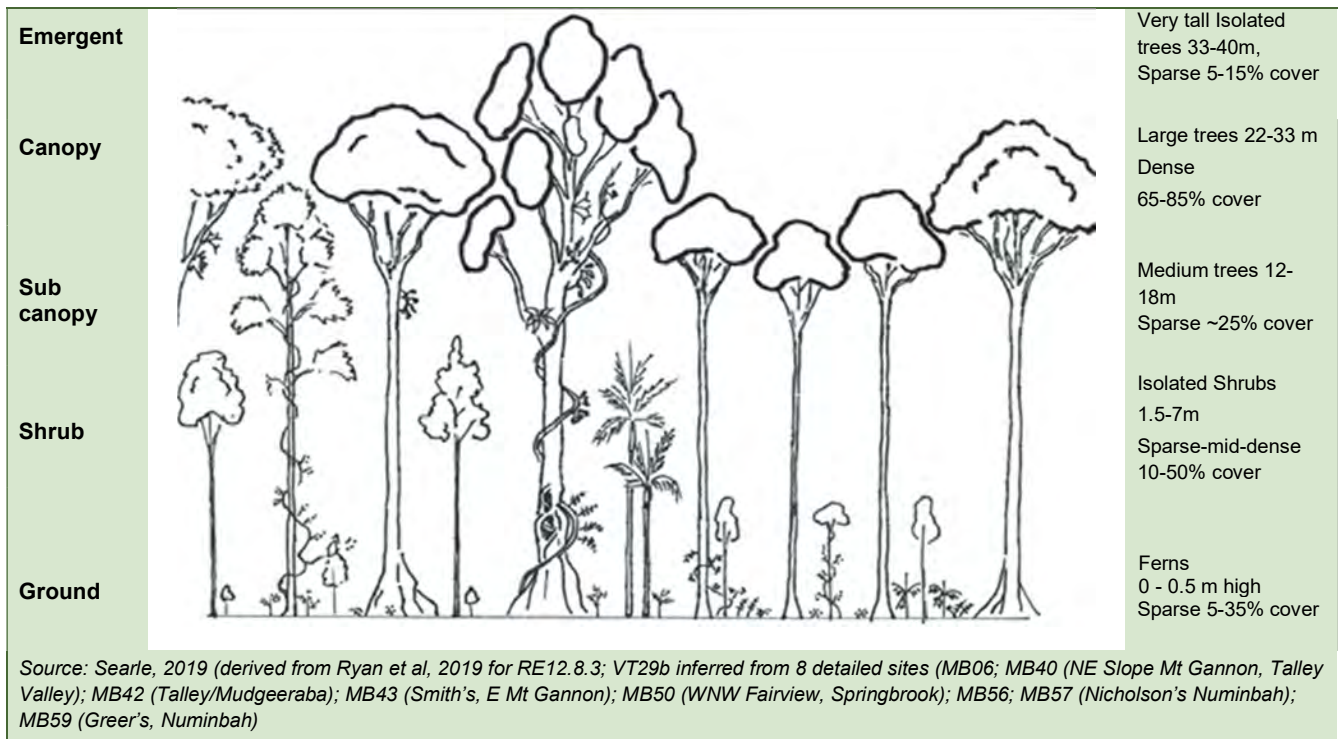
Regional Ecosystem: 12.8.3

Vine Forest on Cainozoic Igneous Rocks
(usually <600 m altitude)



COMMUNITY STRUCTURE

Vegetation Type (VT) 29b consists of a dense canopy (up to 85% cover shading understorey plants) from 22-33m high, with isolated emergent figs (*Ficus macrophylla*, *F. watkinsiana*) to 40m high. Characteristic canopy species include White Booyong (*Argyrodendron trifoliolatum*), Yellow Carabeen (*Sloanea woolsii*), Rose-Marara (*Pseudoweinmannia lachnocarpa*), Pigeonberry Ash (*Cryptocarya erythroxylon*), Lilly-Pillies (*Syzygium spp.*) and Black Bean (*Castanospermum australe*), although a diversity of other canopy and smaller trees are also present.



The shrub and lower tree layers are sparse to mid-dense and comprise a diverse mix of rainforest plants, whilst the ground layer 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 threatened plant species. Approximately **248 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



Moreton Bay Fig
Ficus macrophylla



Brush Box
Lophostemon confertus



Rose Marrara
Pseudoweinmannia lachnocarpa

CANOPY

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



White Booyong
Argyrodendron trifoliolatum



Giant Stinging Tree
Dendrocnide excelsa



Blackbean
Castanospermum australe

CANOPY

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



Yellow Carrabeen
Sloanea woollsii



Soft Corkwood
Ackama paniculosa
(formerly *Caldcluvia paniculosa*)



Brown Pine
Podocarpus elatus



Pigeonberry Ash
Cryptocarya erythroxylon



Riberry
Syzygium luehmannii



Purple Cherry
Syzygium crebrinerve



Rose Marrara
Pseudoweinmannia lachnocarpa



Sour Cherry
Syzygium corynanthum



Giant Water Gum
Syzygium francisii



Red Carrabeen
Karrabina benthamiana
(formerly *Geissois benthamii*)

SUB-CANOPY

Tree layer below canopy



Ferny-leaf Bonewood
Bosistoa pentacocca



Brush Bloodwood
Baloghia inophylla



Bangalow Palm
Archontophoenix cunninghamiana



Maiden's Blush
Sloanea australis subsp. australis



Red-flowered Socketwood
Daphnandra tenuipes



Guilfoylia
Guilfoylia monostylis



Grey Walnut
Beilschmiedia elliptica

SHRUB LAYER

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



Fissistigma

Meiogyne stenopetala subsp.
stenopetala



Bolwarra

Eupomatia laurina



Smooth Wilkiea

Wilkiea austroqueenslandica



Large-leaved Wilkiea

Wilkiea macrophylla



Walking Stick Palm

Linospadix monostachya



Smooth Scrub Turpentine

Rhodamnia maideniana



Omega

Cleistanthus cunninghamii

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).



Leaf underside

Trim Shield Fern

Lastreopsis decomposita
FERN



Leaf underside

Naked Shield Fern

Lastreopsis munita
FERN



Glossy Shield Fern

Lastreopsis marginans
FERN



Jungle Brake

Pteris umbrosa
FERN



Yellow-fruited Mat Rush

Lomandra spicata
GRAMINOID



Native Lily

Alocasia brisbanensis
OTHER



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



Wait-a-while/ Lawyer Vine
Calamus muelleri



Austral Sarsparilla
Smilax australis



White Supplejack
Ripogonum album



Kangaroo Vine
Cissus Antarctic



Giant Pepper Vine
Piper novae-hollandiae



Carronia
Carronia multisepealea



Whip Vine
Flagellaria indica



Burny Vine
Trophis scandens subsp. scandens



Zigzag Vine
Melodorum leichhardtii



Giant Blood Vine
Austrosteenisia glabristyla

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



Native Grape
Tetrastigma nitens



Anchor Vine
Palmeria scandens



Climbing Fishbone Fern
Arthropteris tenella



Native Pothos
Pothos longipes

EPIPHYTES

Species that grow on the surface of other plants



Bird's Nest Fern
Asplenium australasicum



Staghorn
Platycerium superbum



Elkhorn
Platycerium bifurcatum



Robber Fern
Pyrrosia confluens var. confluens



Blotched Cane Orchid
Dendrobium gracilicaule

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.

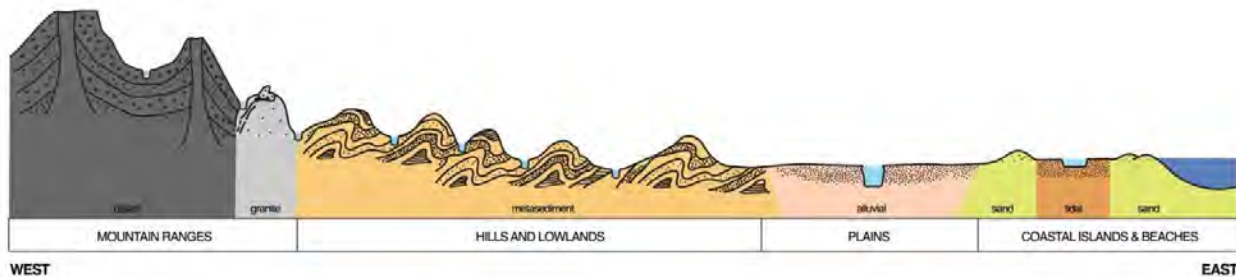
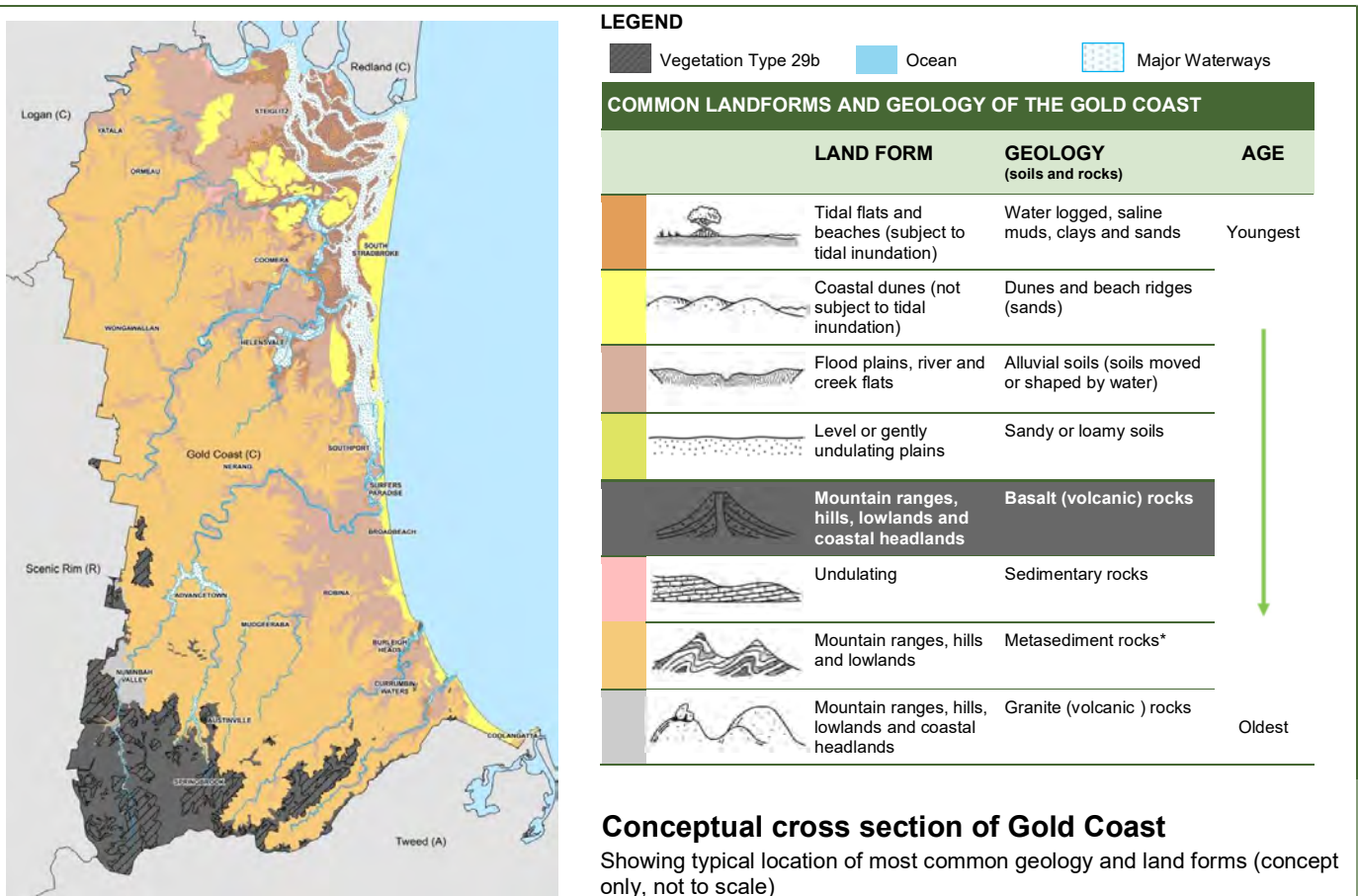
 <p>Spice Bush / Honeysuckle Bush <i>Triunia youngiana</i></p>	 <p>Long Jack <i>Flindersia xanthoxyla</i></p>	 <p>Veiny Lace Flower <i>Archidendron muellerianum</i></p>	 <p>Green-leaved Rose Walnut <i>Endiandra muelleri</i> subsp. <i>bracteata</i></p>
 <p>Palm Lily <i>Cordyline congesta</i></p>	 <p>Red Boppel Nut <i>Hicksbeachia pinnatifolia</i></p>	 <p>Long-leaved Tuckeroo <i>Cupaniopsis newmanii</i></p>	 <p>Fine-leaved Tuckeroo <i>Lepiderema pulchella</i></p>
 <p>Lily of the Valley Orchid <i>Dendrobium monophyllum</i></p>	 <p>Red Lily Pilly <i>Syzygium hodgkinsoniae</i></p>	<ul style="list-style-type: none"> • Macleay Laurel <i>Anopterus macleayanus</i> • Ardisia <i>Ardisia bakeri</i> • Three-leaved Bosistoa <i>Bosistoa transversa</i> • Stinking Cryptocarya <i>Cryptocarya foetida</i> • Smooth Tuckeroo <i>Cupaniopsis serrata</i> • Pencil Orchid <i>Dockrillia schoenina</i> • Rusty Rose Walnut <i>Endiandra hayesii</i> • Ball Nut <i>Floydia praealta</i> • Rusty Helicia <i>Helicia ferruginea</i> • Macadamia Nut <i>Macadamia tetraphylla</i> • Downy Milk Vine <i>Marsdenia pleadenia</i> • Richmond Birdwing Vine <i>Pararistolochia laheyana</i> • Large-leaved Pollia <i>Pollia macrophylla</i> • Raspy Root Orchid <i>Rhinerrhiza divitiflora</i> 	

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.

Vegetation type 29b is the dominant rainforest on basalt-derived soils throughout the Gold Coast. It is widespread and common in the southern hinterland areas where it occurs in high rainfall areas on hillslopes and all but the highest part of elevated plateaus. It is typically found on fertile red to brown soils, and also occurs on well-drained clay loam soils on lower terraces, where the Bangalow Palm (*Archontophoenix cunninghamiana*) typically dominates the understorey. It transitions into VT29c (Cool Sub-tropical Vine Forest) at higher altitudes on the Springbrook and Lamington plateaus.

Historic distribution of Vegetation Type 29b



* 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

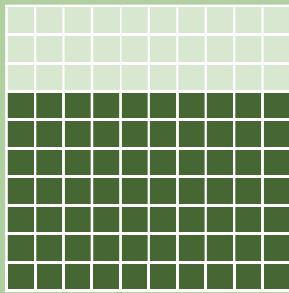
Both historically and currently, VT 29b is the most common type of rainforest on the Gold Coast. The 2017 extent* of this vegetation type on the Gold Coast was 3,977 hectares.

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

EXTENT (ha)

Historic
5,689ha

2017*
3,977 ha
70% 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 12.8.3) 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 sensitive to fire, particularly where it adjoins tall open forest in which eucalypts or Brush Box occur. It should be managed to exclude fire, or at least limit frequency of fire events to maintain an appropriate mosaic with these adjoining forest communities. 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, and appropriate weed management is critical, especially near edges and clearings in 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.