Wet Eucalypt

VEGETATION TYPE 2a

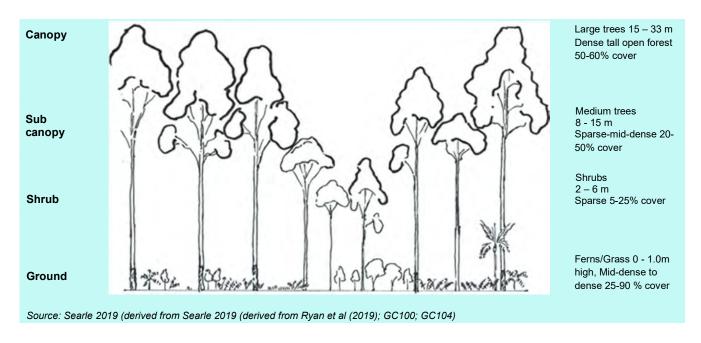
Regional Ecosystem: 12.11.2

Flooded Gum (*Eucalyptus grandis*) Tall Open Forest on Metasediments



COMMUNITY STRUCTURE

Vegetation type 2a is typically a tall open forest with a dense canopy (50-60% cover) which shades underlying plants. The canopy layer is typically 15-33m high and characterised by a dense layer of Flooded Gum and/or Sydney Blue Gum (*Eucalyptus grandis*, *E. saligna*), together with smaller numbers of Brush Box, Tallowwood and/or Pink Bloodwood (*Lophostemon confertus*, *E. microcorys*, *Corymbia intermedia*) in the canopy and sub-canopy.



The sub-canopy and shrub layers are mid-dense to sparse, and depending on fire history may include a diverse understorey of rainforest plants, often with *Archidendron muellerianum*, *Archirhodomyrtus beckleri*, *Cryptocarya microneura*, *Shizomeria ovata* and *Guoia semiglauca* present. The ground layer is typically dominated by ferns (*particularly Calochlaena dubia*, *Cyathea spp.*, *Blechnum cartilagineum*, *Adiantum silvaticum*). Vines are also common including *Smilax australis* and *Cissus hypoglauca*.



Characteristic plant species

Approximately 90 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



Eucalyptus saligna

Photo needed

Flooded Gum Eucalyptus grandis



Pink Bloodwood Corymbia intermedia



Brush Box Lophostemon confertus



Tallowwood Eucalyptus microcorys



SUB-CANOPY

Tree layer below canopy



Brush Box Lophostemon confertus



Rose Myrtle Archirhodomyrtus beckleri



Veiny Lace Flower
Archidendron muellerianum



Callicoma
Callicoma serratifolia

SHRUB LAYER

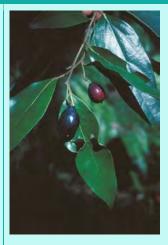
Middle layer of vegetation usually made up of small trees and woody shrubs



Crab Apple Schizomeria ovata



Wild Quince Guioa semiglauca



Murrogun *Cryptocarya microneura*

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.



Maidenhair Fern Adiantum silvaticum FERN



Gristle Fern
Blechnum cartilagineum
FERN



Common Ground Fern Calochlaena dubia FERN



Barbed-wire Vine Smilax australis VINE



Giant Water Vine
Cissus hypoglauca
VINE



Prickly Tree Fern
Cyathea leichhardtiana
TREE 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.



Black Walnut Endiandra globosa TREE



Fine-leaved Tuckeroo Lepiderema pulchella SHRUB

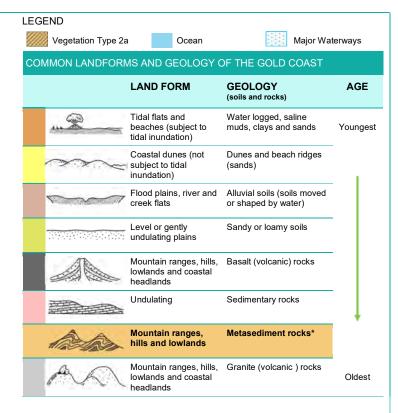
OCCURRENCE

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 is typically found in the southern hinterland of the Gold Coast. It favours moist, fertile areas exposed to high rainfall, in sheltered gullies and associated foothill slopes, typically occupying rich, deeper sediment-derived soils, which have been enhanced by a dense litter layer and have a high organic content in the soil. It is often occurs in gullies and adjoining creeks on the rich red to brown soils of the Springbrook plateau and associated ridges to the east. Representative examples of this vegetation type occur in moist gullies in the Bonogin, Austinville, Tallebudgera and Currumbin valleys, where it inter-grades with VT2 (Brush Box tall open forest) and VT29a (gully rainforest). It also occurs on sheltered slopes at Advancetown, Canungra, Lower Beechmont, Eagle Heights and Wongawallan.

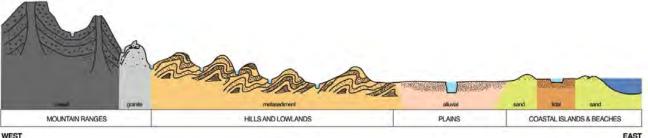
Historic distribution of Vegetation Type 2a





Conceptual cross section of Gold Coast

Showing typical location of most common geology and land forms (concept only, not to scale)



* 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.

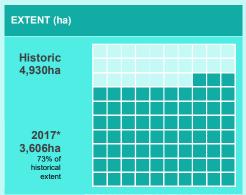


2017 EXTENT AND CONSERVATION STATUS

Gold Coast

Historically, this vegetation type was the tenth most common vegetation type on the Gold Coast, but is currently the fifth most common, with 73% of its original extent remaining. The 2017 extent* of this vegetation type on the Gold Coast is 3,606 hectares.

1 HECTARE (HA) = 2.46 ACRES ≅ 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 12.11.2) 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

This vegetation type is particularly susceptible to infestation by Lantana and exotic scrambling vines (notably *Pueraria lobata, Anredera cordifolia* and *Macfadyena unguis-cati*). It will also transition towards rainforest in the absence of fire, and relies on appropriate fire management (low frequency, high intensity fires).

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.

Woods

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.

